

THE

Adelaide University Calendar

FOR THE

ACADEMICAL YEAR 1890.

ADELAIDE:

W. K. THOMAS & CO., GRENFELL STREET.

1890.

W. K. THOMAS & CO., PRINTERS, GRENFELL STREET, ADELAIDE.

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ADELAIDE UNIVERSITY CALENDAR
FOR THE YEAR 1890.

JANUARY XXXI.

1890.

1	W	Public holiday.	
2	TH		
3	F		
4	S		
5	S		
6	M	Last day of entry for the Special Senior Public Examination to be held in March.	
7	TU		
8	W		
9	TH		
10	F		
11	S		
12	S		
13	M		
14	TU		
15	W		
16	TH		
17	F		
18	S		
19	S		
20	M		
21	TU		
22	W		
23	TH		
24	F		
25	S		
26	S		
27	M	Lat day for applying to the Education Department for admission to the Examination for University Scholarships to be held in March	
28	TU		
29	W		
30	TH		
31	F		Council Meeting.

1890.

FEBRUARY XXVIII.

1	S	Last day of entry for the Preliminary Examination to be held in March.
2	S	
3	M	
4	TU	
5	W	
6	TH	
7	F	
8	S	
9	S	
10	M	Last day of entry for the Ordinary LL.B. Examination in March, and the Supplementary Ordinary M.B.
11	TU	
12	W	
13	TH	
14	F	
15	S	
16	S	
17	M	
18	TU	
19	W	
20	TH	
21	F	
22	S	
23	S	
24	M	Council Meeting.
25	TU	
26	W	
27	TH	
28	F	

1	S	
2	S	
3	M	
4	TU	
5	W	
6	TH	
7	F	
8	S	
9	S	
10	M	Vacation ends.
11	TU	First Term begins: and Ordinary LL.B., Supplementary Ordinary M.B., Preliminary, Special Senior Public, University Scholarships, and Angas Engineering Exhibition Examinations begin.
12	W	
13	TH	
14	F	
15	S	Last day for sending to Clerk of Senate nominations of Candidates for the offices of Warden and Clerk of the Senate, and for sending in Notices of Motions to be brought forward at meeting of Senate on March 26.
16	S	
17	M	Lectures begin.
18	TU	
19	W	
20	TH	
21	F	
22	S	
23	S	
24	M	
25	TU	
26	W	Senate meets. Election of Warden and Clerk.
27	TH	
28	F	Council Meeting.
29	S	
30	S	
31	M	

1890.

APRIL XXX.

1	TU	
2	W	
3	TH	
4	F	Good Friday. Easter recess begins
5	S	
6	S	Easter Sunday.
7	M	Easter Monday. Public holiday.
8	TU	Easter recess ends.
9	W	Lectures recommence. Examination for the John Howard Clark Scholarship begins.
10	TH	
11	F	
12	S	
13	S	
14	M	
15	TU	
16	W	
17	TH	
18	F	
19	S	
20	S	
21	M	
22	TU	
23	W	
24	TH	
25	F	Council Meeting.
26	S	
27	S	
28	M	
29	TU	
30	W	

MAY XXXI.

1890.

1	Th	
2	F	
3	S	
4	S	
5	M	
6	Tu	
7	W	
8	Th	
9	F	
10	S	
11	S	
12	M	
13	Tu	
14	W	
15	Th	
16	F	
17	S	Last day of entry for the LL.D. Examination in November.
18	S	
19	M	
20	Tu	
21	W	
22	Th	
23	F	
24	S	Queen's Birthday. Public holiday.
25	S	
26	M	
27	Tu	
28	W	
29	Th	
30	F	Council Meeting. First Term ends. Lectures end.
31	S	Vacation begins.

1890.

JUNE XXX.

1	S	
2	M	
3	Tu	
4	W	
5	Th	
6	F	
7	S	
8	S	
9	M	
10	Tu	
11	W	
12	Th	
13	F	
14	S	
15	S	
16	M	Second Term begins.
17	Tu	Lectures begin.
18	W	
19	Th	
20	F	Accession of Queen Victoria. Public holiday.
21	S	
22	S	
23	M	
24	Tu	
25	W	
26	Th	
27	F	Council Meeting.
28	S	
29	S	
30	M	Last day for sending in Compositions for Mus. Bac. Degree.

1	TU	
2	W	
3	TH	
4	F	
5	S	
6	S	
7	M	
8	TU	
9	W	
10	TH	
11	F	
12	S	Senate. Last day for sending in to Clerk of Senate notices of motions to be brought forward at meeting of the Senate on July 23.
13	S	
14	M	
15	TU	
16	W	
17	TH	
18	F	
19	S	
20	S	
21	M	
22	TU	
23	W	Senate meets.
24	TH	
25	F	Council Meeting.
26	S	
27	S	
28	M	
29	TU	
30	W	
31	TH	

1890.

AUGUST XXXI.

1	F	
2	S	
3	S	
4	M	
5	TU	
6	W	
7	TH	
8	F	
9	S	
10	S	
11	M	
12	TU	
13	W	
14	TH	
15	F	
16	S	
17	S	
18	M	
19	TU	
20	W	
21	TH	
22	F	Second Term ends. Lectures end.
23	S	
24	S	
25	M	Last day of entry for the Preliminary Examination in September.
26	TU	
27	W	
28	TH	
29	F	Council Meeting.
30	S	
31	S	

SEPTEMBER XXX.

1890.

1	M	Public holiday. Last day of entry for the M.A. Examination.
2	TU	
3	W	
4	TH	
5	F	
6	S	
7	S	
8	M	Third Term begins. Examination for the Royal Military College begins. Lectures begin. Preliminary Examination begins.
9	TU	
10	W	
11	TH	
12	F	
13	S	
14	S	
15	M	
16	TU	
17	W	
18	TH	
19	F	
20	S	
21	S	
22	M	Council Meeting.
23	TU	
24	W	
25	TH	
26	F	
27	S	
28	S	
29	M	
30	TU	

1890.

OCTOBER XXXI.

1	W	Last day of entry for Public Examination in the Theory of Music.
2	TH	
3	F	
4	S	
5	S	
6	M	
7	TU	
8	W	
9	TH	
10	F	Last day of entry for Public Examination in the Practice of Music.
11	S	
12	S	
13	M	
14	TU	
15	W	
16	TH	
17	F	Last day of entry for Ordinary LL.B., M.D., Ch.M., M.B., B.A., B.Sc., and Mus. Bac. Examinations.
18	S	
19	S	
20	M	
21	TU	
22	W	
23	TH	
24	F	
25	S	
26	S	
27	M	Last day of entry for the Higher Public Examination.
28	TU	
29	W	
30	TH	
31	F	Council Meeting. Last day of entry for the Senior Public and Junior Public Examinations.

NOVEMBER XXX.

1890.

1	S		
2	S		
3	M	Public Examinations in Theory of Music begin.	
4	TU		
5	W		
6	TH		
7	F		Lectures end.
8	S		
9	S	Prince of Wales' Birthday.	
10	M	Public holiday.	
11	TU		
12	W		
13	TH		
14	F		
15	S		Senate. Last day for sending to Clerk of Senate notices of motions and nominations of Candidates for five annual vacancies in the Council.
16	S		
17	M	LL.D., Ordinary LL.B., M.D., Ch.M., M.B., B.A., B.Sc., and Higher Public Examinations begin.	
18	TU		
19	W		Ordinary Mus. Bac. Examination begins.
20	TH		
21	F		
22	S		
23	S		
24	M	Senior Public and Junior Public Examinations begin.	
25	TU	Senate meets. Election of five members of Council.	
26	W		
27	TH	Council Meeting.	
28	F		
29	S		
30	S		

1890.

DECEMBER XXXI.

1	M	Examination for the M.A. Degree begins.
2	TU	
3	W	
4	TH	
5	F	
6	S	
7	S	
8	M	Third Term ends.
9	TU	
10	W	Last day of entry for the Angas Engineering Exhibition Examination to be held in March, 1891. Council Meeting.
11	TH	
12	F	
13	S	
14	S	
15	M	
16	TU	
17	W	
18	TH	
19	F	
20	S	
21	S	
22	M	Christmas Day.
23	TU	
24	W	Proclamation of the Colony.
25	TH	
26	F	
27	S	
28	S	
29	M	Public Holiday.
30	TU	
31	W	

LETTERS PATENT.

Dated 22nd March, 1881.

Victoria, by the Grace of God, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith, Empress of India : To all to whom these Presents shall come, greeting.

WHEREAS, under and by virtue of the provisions of three Acts of the Legislature of South Australia, respectively known as "The Adelaide University Act," "The Adelaide University Act Amendment Act," and "The University of Adelaide Degrees Act," a University consisting of a Council and Senate has been incorporated and made a body politic with perpetual succession, under the name of "The University of Adelaide," with power to grant the several Degrees of Bachelor of Arts, Master of Arts, Bachelor of Medicine, Doctor of Medicine, Bachelor of Laws, Doctor of Laws, Bachelor of Science, Doctor of Science, Bachelor of Music, and Doctor of Music :

And whereas the Chancellor, Vice-Chancellor, and Council of the said University, by their humble petition under the common seal of the University, have prayed Us to the effect following (that is to say) :

To grant Our Letters Patent, declaring that the aforesaid Degrees already conferred or hereafter to be conferred by the University of Adelaide shall be recognized as academic distinctions and rewards of merit, and be entitled to rank, precedence, and consideration within Our Dominions as fully as if the said Degrees had been conferred by any University in Our United Kingdom of Great Britain and Ireland ; and that such recognition may extend to Degrees conferred on Women :

Now know ye that We, having taken the said petition into Our Royal consideration, do, by virtue of Our prerogative and of Our special grace, certain knowledge, and mere motion, by these presents, for Us, Our heirs and successors, will and ordain as follows :

I. The Degrees of Bachelor of Arts, Master of Arts, Bachelor of Medicine, Doctor of Medicine, Bachelor of Laws, Doctor of Laws, Bachelor of Science, Doctor of Science, Bachelor of Music, and Doctor of Music, heretofore granted or conferred and hereafter to be granted or conferred by the said University of Adelaide on any person, male or female, shall be recognized as academic distinctions and rewards of merit, and be entitled to rank, precedence, and consideration in Our United Kingdom and in Our Colonies and Possessions throughout the World, as fully as if the said Degrees had been granted by any University of Our said United Kingdom.

II. No variation of the constitution of the said University which may at any time, or from time to time, be made by any Act of the Legislature of South Australia shall in any manner annul, abrogate, circumscribe, or diminish the privileges conferred on the said University by these Our Letters Patent, nor the rank, rights, privileges, and considerations conferred by such Degrees, so long as the standard of knowledge now established, or a like standard, be preserved as a necessary condition for obtaining the aforesaid Degrees.

III. Any such standard shall be held sufficient for the purposes of these Our Letters Patent if so declared in any proclamation issued by Our Governor of South Australia for the time being.

In witness whereof We have caused these Our Letters to be made Patent. Witness Ourselves at Westminster, the 22nd day of March, in the Forty-fourth year of Our Reign.

By Warrant under the Queen's Sign Manual.

PALMER.

ACT OF INCORPORATION.

The Adelaide University Act.

No. 20 OF 1874.

Preamble.

WHEREAS it is expedient to promote sound learning in the Province of South Australia, and with that intent to establish and incorporate, and endow an University at Adelaide, open to all classes and denominations of Her Majesty's subjects: And whereas Walter Watson Hughes, Esquire, has agreed to contribute the sum of Twenty Thousand Pounds towards the endowment of two chairs or professorships of such University, upon terms and conditions contained in a certain Indenture bearing date the twenty-fourth day of December, one thousand eight hundred and seventy-two, and made between the said Walter Watson Hughes and Alexander Hay, Esquires, representing an Association formed for the purpose of establishing such University, a copy of which said Indenture is set forth in the Schedule hereto; he it therefore enacted by the Governor of the Province of South Australia, with the advice and consent of the Legislative Council and House of Assembly of the said Province, in this present Parliament assembled, as follows:

University to consist of Council and Senate.

1. An University, consisting of a Council and Senate, shall be established at Adelaide, and when duly constituted and appointed according to the provisions of this Act, shall be a body politic and corporate by the name of "The University of Adelaide," and by such name shall have perpetual succession, and shall adopt and have a common seal, and shall by the same name sue and be sued, plead and be impleaded, answer and be answered unto in all Courts in the said province, and shall be capable in law to take, purchase, and hold all goods, chattels, and personal property whatsoever, and shall also be able and capable in law to receive, take, purchase, and hold for ever, not only such lands, buildings, and hereditaments, and possessions, as may from time to time be exclusively used and occupied for the immediate requirements of the said University, but also any other lands, buildings, hereditaments, and possessions whatsoever, situated in the said Province, or elsewhere, and shall be able and capable in law to grant, demise, alien, or otherwise dispose of all or any of the property, real or personal, belonging to the University, and also to do all other matters and things incidental or

appertaining to a body politic and corporate : Provided always, that until the Senate of the said University shall have been constituted as herein enacted, the said University shall consist of a Council only : Provided further, that it shall not be lawful for the said University to alien, mortgage, charge, or demise any lands, tenements, or hereditaments, of which it shall have become seised, or to which it may become entitled by grant, purchase, or otherwise, unless with the approval of the Governor of the said Province for the time being, except by way of lease for any term not exceeding twenty-one years from the time when such lease shall be made, in and by which there shall be reserved during the whole of the term the highest rent that can be reasonably obtained for the same, without fine.

First Council by whom appointed. Election of Chancellor and Vice-Chancellor.

2. The first Council of the said University shall be nominated and appointed by the Governor within three months after the passing of this Act, and shall consist of twenty councillors, and the said Council shall elect a Chancellor and a Vice-Chancellor ; and whenever a vacancy shall occur in the office of Chancellor or Vice-Chancellor, either by death, resignation, expiration of tenure, or otherwise, the said Council shall elect a Chancellor or Vice-Chancellor, as the case may be, instead of the Chancellor or Vice-Chancellor occasioning such vacancy, the Vice-Chancellor in all cases shall be elected by the said Council out of their own body, and the Chancellor, if not a member of the said Council at the time of his election, shall, from and after his election, become a member of the said Council during the term of his office, and in any such case, and for such period, the Council shall consist of twenty-one councillors. Each Chancellor and Vice-Chancellor shall hold his office for five years, or, except in the case of the first Chancellor and Vice-Chancellor, for such other term as shall be fixed by the statutes and regulations of the University made previously to the election : Provided that there shall never be more than four ministers of religion members of the said Council at the same time.

Vacancies in the Council, how created and filled.

3. At the expiration of the third year, and thereafter at the expiration of each year, the five members of the Council who shall have been longest in office shall retire, but shall be eligible for re-election, and if more members shall have been in office for the same period, the order of their retirement shall be decided by ballot, and all vacancies which shall occur in the said Council by retirement, death, resignation, or otherwise, shall be filled as they may occur, by the election of such persons as the Senate shall at meetings to be duly convened for that purpose elect ; or, if the Senate shall not have been constituted, such vacancies shall be forthwith reported by the Chancellor to the Governor, who shall within

three months after such report nominate persons to fill such vacancies, or if the Senate shall fail to elect within six months, then the Governor shall nominate persons to fill such vacancies.

Senate how constituted.

4. As soon as the said Council shall have reported to the Governor that the number of graduates admitted by the said University to any of the degrees of Master of Arts, Doctor of Medicine, Doctor of Laws, Doctor of Science, or Doctor of Music, and of graduates of three years' standing, is not less than fifty, and such report shall have been published in the *Government Gazette*, the Senate shall be then constituted, and shall consist of such graduates, and of all persons thereafter admitted to such degrees, or who may become graduates of three years' standing, and a graduate of another University admitted to a degree in The University of Adelaide shall reckon his standing from the date of his graduation in such other University, and the Senate shall elect a Warden out of their own body annually, or whenever a vacancy shall occur.

Questions how decided, quorum.

5. All questions which shall come before the said Council or Senate respectively shall be decided by the majority of the members present, and the chairman at any such meeting shall have a vote, and in case of an equality of votes, a casting vote, and no question shall be decided at any meeting of the said Council unless six members thereof be present, or at any meeting of the said Senate unless twenty members thereof be present.

Chairmanship of Council and Senate.

6. At every meeting of the Council the Chancellor, or in his absence the Vice-Chancellor, shall preside as chairman, and at every meeting of the Senate the Warden shall preside as chairman, and in the absence of the Chancellor and Vice-Chancellor, the members of the Council present, and in the absence of the Warden the members of the Senate present shall elect a chairman.

Council to have entire management of the University.

7. The said Council shall have full power to appoint and dismiss all professors, lecturers, examiners, officers, and servants of the said University, and shall have the entire management and superintendence over the affairs, concerns, and property thereof, subject to the statutes and regulations of the said University.

Council to make statutes and regulations with approval of the Senate.

8. The said Council shall have full power to make and alter any statutes and regulations (so as the same be not repugnant to any existing law or to the provisions of this Act) touching any election or

the discipline of the said University, the number, stipend, and manner of appointment and dismissal of the professors, lecturers, examiners, officers, and servants thereof, the matriculation of students, the examination for fellowships, scholarships, prizes, exhibitions, degrees, or honours, and the granting of the same respectively, the fees to be charged for matriculation, or for any such examination or degree, the lectures or classes of the professors and lecturers, and the fees to be charged, the manner and time of convening the meetings of the said Council and Senate and in general touching all other matters whatsoever regarding the said University : Provided always that so soon as the Senate of the said University shall have been constituted, no new statute or regulation, or alteration or repeal of any existing statute, shall be of any force until approved by the said Senate.

Colleges may be affiliated, and boarding-houses licensed.

9. It shall be lawful for the said University to make any statutes for the affiliation to or connection with the same of any college or educational establishment to which the governing body of such college or establishment may consent, and for the licensing and supervision of boarding-houses intended for the reception of students, and the revocation of such licenses : Provided always that no such statutes shall affect the religious observances or regulations enforced in such colleges, educational establishments, or boarding-houses.

Statutes and Regulations to be allowed by Governor.

10. All such statutes and regulations as aforesaid shall be reduced to writing, and the common seal of the said University having been affixed thereto, shall be submitted to the Governor to be allowed and countersigned by him, and if so allowed and countersigned, shall be binding upon all persons members of the said University, and upon all candidates for degrees to be conferred by the same.

Limitation of the powers of Council as regards the chairs founded by W. W. Hughes.

11. The powers herein given to the Council shall, so far as the same may affect the two chairs or professorships founded by the said Walter Watson Hughes, and the two professors appointed by him, and so far as regards the appropriation and investment of the funds contributed by him, be subject to the terms and conditions of the before-mentioned indenture.

University to confer Degrees.

12. The said University shall have power to confer, after examination, the several Degrees of Bachelor of Arts, Master of Arts, Bachelor of Medicine, Doctor of Medicine, Bachelor of Laws, Doctor of Laws, Bachelor of Science and Doctor of Science, Bachelor of Music and Doctor of Music, according to the statutes and regulations of the said

University: Provided always that it shall be lawful for the said University to make such statutes as they may deem fit for the admission, without examination, to any such degree, of persons who may have graduated at any other University.

Students to be in residence during term.

13. Every undergraduate shall, during such term of residence as the said University may by statute appoint, dwell with his parent or guardian, or with some near relative or friend selected by his parent or guardian, and approved by the Chancellor or Vice-Chancellor, or in some collegiate or educational establishment affiliated to or in connection with the University, or in a boarding-house licensed as aforesaid.

No religious test to be administered

14. No religious test shall be administered to any person in order to entitle him to be admitted as a student of the said University, or to hold office therein, or to graduate thereat, or to hold any advantage or privilege thereof.

Endowment by annual grant.

15. It shall be lawful for the Governor by warrant under his hand, addressed to the Public Treasurer of the Province, to direct to be issued and paid out of the General Revenue an annual grant, equal to Five Pounds per centum per annum on the said sum of Twenty Thousand Pounds contributed by the said Walter Watson Hughes, and on such other moneys as may from time to time be given to and invested by the said body corporate upon trusts for the purposes of such University, and on the value of property real or personal, securely vested in the said body corporate, or in trustees, for the purposes of the said University, except the real property mentioned in clause 16 of this Act; and such annual grant shall be applied as a fund for maintaining the said University, and for defraying the several stipends which may be appointed to be paid to the several professors, lecturers, examiners, officers, and servants to be appointed by such University, and for defraying the expense of such fellowships, scholarships, prizes, and exhibitions, as shall be awarded for the encouragement of students in such University, and for providing a library for the same, and for discharging all necessary charges connected with the management thereof: Provided that no such grant shall exceed Ten Thousand Pounds in any one year.

Endowment in Land.

16. The Governor, in the name and on behalf of Her Majesty, may alienate, grant, and convey in fee-simple to such University or may reserve and dedicate portions of the waste lands of the said Province, not exceeding fifty thousand acres, for the purpose of the University and the further endowment thereof; and the Governor may in like

manner, and on behalf of Her Majesty, alienate, grant, and convey in fee-simple to such University, or may reserve and dedicate a piece of land in Adelaide, east of the Gun Shed and facing North-Terrace, not exceeding five acres, to be used as a site* for the University buildings and for the purposes of such University: Provided that the lands so granted shall be held upon trust for the purposes of such University, such trusts to be approved by the Governor.

University of Adelaide included in Ordinance No. 17 of 1844.

17. The University of Adelaide shall be deemed to be an University within the meaning of section 1† of Ordinance No. 17 of 1844, entitled "An Ordinance to define the qualifications of Medical Practitioners in this Province for certain purposes."

Council or Senate to report annually to the Governor.

18. The said Council or Senate shall, during the month of January in every year, report the proceedings of the University during the previous year to the Governor, and such report shall contain a full account of the income and expenditure of the said University, audited in such manner as the Governor may direct, and a copy of every such report, and of all the statutes and regulations of the University, allowed as aforesaid by the Governor, shall be laid in each year before the Parliament.

Governor to be Visitor.

19. The Governor for the time being shall be the Visitor of the said University, and shall have authority to do all things which appertain to Visitors as often as to him shall seem meet.

Short Title.

20. This Act may be cited as "The Adelaide University Act."

SCHEDULE REFERRED TO.

This Indenture, made the twenty-fourth day of December, one thousand eight hundred and seventy-two, between Walter Watson Hughes, of Torrens Park, near Adelaide, in the Province of South Australia, Esquire, of the one part, and Alexander Hay, of Adelaide, aforesaid, Esquire, Treasurer of the Executive Council of the University Association, of the other part: Whereas the said Walter Watson Hughes is desirous that a University should be established in the said Province, to be called "The Adelaide University," and has agreed to assist in the foundation of such University, by contributing the sum of Twenty

* An exchange of part of the site granted under this section has been effected under Act No. 45 of 1876.

† This section has been repealed by Act No. 193 of 1880, which recognizes (amongst others) the following qualifications:—"Doctor or Bachelor of Medicine, or Master in Surgery of any chartered University in Her Majesty's Dominions authorised to grant Degrees in Medicine and Surgery."

Thousand Pounds in endowing by the income thereof two chairs or professorships in the said University, one for Classical and Comparative Philology and Literature, and the other for English Language and Literature and Mental and Moral Philosophy: And whereas the said Walter Watson Hughes, his executors or administrators is or are entitled to nominate and appoint the two first Professors to such chairs: And whereas an Association has been formed, and has undertaken to endeavour to found and establish such University, and has appointed an Executive Council: And whereas the said Alexander Hay has been appointed Treasurer of the said Executive Council: I Now this Indenture witnesseth, that in consideration of the premises, the said Walter Watson Hughes doth hereby for himself, his heirs, executors, and administrators covenant with the said Alexander Hay, his executors and administrators, that he, the said Walter Watson Hughes, his executors, or administrators, shall and will, on or before the expiration of ten years from the date hereof pay to the said Alexander Hay, as such Treasurer, or to the said Executive Council, or if the said University is incorporated within such period, then to such Corporation the sum of Twenty Thousand Pounds Sterling: And will, in the meantime, pay interest thereon, or on such portion thereof as may remain unpaid at the rate of Six Pounds per centum per annum, from the first day of May, one thousand eight hundred and seventy-three, such interest to be paid by equal quarterly payments: And it is agreed and declared that the interest and annual income of the said sum of Twenty Thousand Pounds shall be applied in two equal sums in endowing the said two chairs with salaries for the two Professors, or occupiers of such chairs: And it is hereby also declared and agreed that the said Walter Watson Hughes has appointed the Reverend Henry Read, M.A., Incumbent of the Church of England in the District of Mitcham, to occupy, and that the said Henry Read shall occupy the first of such chairs as Professor of Classics and Comparative Philology and Literature: And that the said Walter Watson Hughes has appointed the Reverend John Davidson, of Chalmers Church, Adelaide, to occupy, and that the said John Davidson shall occupy the first of the other of such chairs as Professor of English Language and Literature, and Mental and Moral Philosophy: And it is hereby agreed and declared that the annual income and interest of the said sum of Twenty Thousand Pounds, shall be applied for the purposes aforesaid in equal sums quarterly, and for no other purpose whatever: And it is also declared and agreed that the said sum of Twenty Thousand Pounds shall be held by the Treasurer of the said University, or by the Corporation thereof, when the said University shall become incorporated, for the purpose of paying and applying the annual interest and income thereof equally endowing two chairs or professorships in the said University, one of such chairs or professorships being Classics and Comparative Philology and Literature, and the other of such chairs or professorships being English Language and Literature, and Mental and Moral Philosophy: And it is also declared and agreed that the said sum of Twenty Thousand Pounds shall when the same is received by the Treasurer of the said University, or by the University when incorporated, be invested* upon South Australian Government Bonds, Debentures or Securities, and the interest and annual income arising from such investments paid and applied quarterly in endowing the said two chairs or professorships in the said University as aforesaid: In witness whereof the said parties to these presents have hereunto set their hands and seals the day and year first above written.

Signed, sealed, and delivered by the said Walter
 Watson Hughes, in the presence of Richard } W. W. HUGHES. (L.S.)
 B. Andrews, Solicitor, Adelaide.

* By a deed executed in 1881 the donor consented to the investment of the moneys in the purchase of freehold lands and buildings, and on first mortgages of freehold lands and buildings in South Australia.

TRUST CLAUSE OF DEED WHEREBY THE HONOURABLE
THOMAS ELDER GRANTED £20,000 TO THE UNIVERSITY.

By an Indenture, which bears date the 6th day of November, 1874, the Honourable Thomas Elder covenanted to pay Twenty Thousand Pounds, and the trust clause in that deed provides :—“ And it is agreed and declared that the interest and annual income of the said sum of Twenty Thousand Pounds shall be applied as a fund for maintaining the said University, and for defraying the several stipends which may be appointed to be paid to the several Professors, Lecturers, Examiners, officers, and servants to be appointed by such University, and for defraying the expense of such fellowships, scholarships, prizes, and exhibitions as shall be awarded for the encouragement of students in such University, and for providing a Library for the same ; and for discharging all necessary charges connected with the management thereof, and for no other use or purpose whatsoever. And it is also declared and agreed that the said sum of Twenty Thousand Pounds shall, when the same is received by the Treasurer of the said University, or by the University when incorporated, be invested* upon South Australian Government Bonds, Debentures, or securities, and the interest and annual income arising from such investments shall be paid and applied to and for the benefit and advantage of the said University in the manner and for the intents and purposes hereinbefore mentioned and described, and to or for no other purpose whatsoever.”

* By a deed executed in 1880, the University is empowered to invest the moneys in the purchase of freehold lands and buildings and on first mortgages of freehold lands and buildings in South Australia.

AN ACT TO AMEND THE ADELAIDE UNIVERSITY ACT

No. 20 of 1874. *No.* 143 of 1879.

Preamble.

Whereas in order to enable the University of Adelaide to obtain a grant of Royal Letters Patent, and for other reasons, it is expedient to amend "The Adelaide University Act"—Be it therefore enacted by the Governor of the Province of South Australia, with the advice and consent of the Legislative Council and House of Assembly of the said Province, in this present Parliament assembled, as follows :

University has been duly constituted.

1. The University of Adelaide has been duly constituted and appointed according to the provisions of "The Adelaide University Act."

Power to repeal Statutes and Regulations.

2. Subject to the proviso contained in the eighth section of the said Act, the Council of the said University may by Statute or Regulation repeal Statutes and Regulations made by the University ; and that section shall be read and construed as if the words "or Regulation" had been inserted in it next after "Statute" where that word occurs lastly therein.

Repeal of power to confer certain Degrees.

3. The words "Bachelor of Science and Doctor of Science," which occur in the twelfth section of the said Act, are hereby repealed ; and that section shall be read and construed as if those words had not occurred therein.

Short Title.

4. This Act may be cited as "The Adelaide University Act Amendment Act."

AN ACT TO REPEAL PART OF THE ADELAIDE UNIVERSITY
ACT AMENDMENT ACT *No.* 143 of 1879. *No.* 172 of 1880.

Preamble.

Whereas in order to enable the University of Adelaide to obtain a grant of Royal Letters Patent, and for other reasons, it is expedient to repeal part of "The Adelaide University Act Amendment Act," and to revive part of "The Adelaide University Act," and to amend it—Be it therefore enacted by the Governor of the Province of South Australia, by and with the advice and consent of the Legislative Council and House of Assembly of the said province, in this present Parliament assembled, as follows :

Repeal and revival.

1. The third section of "The Adelaide University Act Amendment Act" is hereby repealed, and so much of "The Adelaide University Act" as was repealed by that section is hereby revived.

Admission of women to Degrees.

2. Women, who shall have fulfilled all the conditions prescribed by "The Adelaide University Act," and by the Statutes and Regulations of The University of Adelaide for any Degree, may be admitted to that Degree at a meeting of the Council and Senate of the said University.

Words importing masculine gender include feminine.

3. In "The Adelaide University Act," words importing the masculine gender shall be construed to include the feminine.

Title.

4. This Act may be cited as "The University of Adelaide Degrees Act."

AN ACT TO ENABLE THE UNIVERSITY OF ADELAIDE TO
CONFER DEGREES IN SURGERY.

No. 441 of 1888.

Preamble.

Whereas a School of Medicine has recently been established in the University of Adelaide, and it is expedient to enable the said University to confer the degrees of Bachelor of Surgery and Master of Surgery—Be it therefore enacted by the Governor of the Province of South Australia, with the advice and consent of the Legislative Council and House of Assembly of the said Province, in this present Parliament assembled, as follows :

University may confer degrees of Bachelor or Master of Surgery.

1. The University of Adelaide shall have power to confer, after examination, the degrees of Bachelor of Surgery and Master of Surgery, according to the statutes and regulations of the said University: Provided always that it shall be lawful for the said University to make such statutes as they may deem fit for the admission, without examination, to any such degree of Bachelor or Master of Surgery of persons who may have obtained a corresponding degree at any other University.

Masters of Surgery to be members of Senate.

2. Persons who shall be admitted by the University of Adelaide to the degree of Master of Surgery shall, on admission thereto, become members of the Senate of the said University.

Title of Act.

3. This Act may be cited as "The Degrees in Surgery Act."

Incorporation.

4. "The Adelaide University Act," "The Adelaide University Act Amendment Act," and "The University of Adelaide Degrees Act," so far as their respective provisions are applicable to and not inconsistent with the provisions of this Act, are incorporated, and shall respectively be read with this Act.

S.A. INSTITUTE ACT AMENDMENT ACT OF 1879.
No. 151 of 1879.

Preamble.

Whereas it is expedient that the University of Adelaide should be represented on the Board of the South Australian Institute, and that the said University should for that purpose be empowered to elect two members of that Board—Be it therefore enacted by the Governor of the Province of South Australia, by and with the advice and consent of the Legislative Council and House of Assembly of the said Province, in this present Parliament assembled, as follows :

South Australian Institute Board increased to nine.

*1. From and after the passing of this Act the Board of Governors of the South Australian Institute shall, notwithstanding anything contained in the South Australian Institute Act, 1863, consist of nine members, of whom two shall be members of, and shall be elected by, the said University.

Council to convene meetings to elect. Tenure of persons elected Filling occasional vacancies.

2. So soon as conveniently may be after the passing of this Act, and thereafter in each succeeding month of October, the Council of the said University shall convene in the prescribed manner a meeting in Adelaide of the said University to elect two members of the said Board, and the members elected at any such meeting shall (except in the event hereinafter provided for) hold office until the election in the next succeeding month of October. Whenever the office held by any member so elected shall during the year or other period for which he was elected become vacant, the said Council shall in the prescribed manner convene a meeting of the University to elect in his room another member, who shall hold office only until the next annual election. *

Power to make Statutes and Regulations to carry out the Act.

3. The said University is hereby empowered to make all such Statutes and Regulations as shall be deemed necessary or proper for prescribing the time and mode of nominating candidates for the said offices, of convening each such meeting, and of transacting the business and conducting the election thereat ; for prescribing the place in Adelaide at which such meetings shall be held, the members of the University who shall preside thereat, and the number of members of the University who must be present in order to constitute a valid meeting, and other Statutes and Regulations dealing with all other matters of every kind which, in the opinion of the said University, ought to be made for the purpose of carrying out this Act in the most efficient manner.

* This Section has been repealed by the Public Library, Museum, and Art Gallery Act, of 1883-4, Section 51.

If meeting not constituted in fifteen minutes after appointed hour, Council to elect for that occasion.

4. Notwithstanding any other provision herein contained, whenever the prescribed number of members of the University is not present within fifteen minutes after the time appointed for holding any such meeting, the Council shall, as soon as conveniently may be thereafter, elect in such manner as they shall think proper a member or (as the case shall require) two members of the said University to be members of the said Board.

Governors elected under this Act to have same rights, &c., as the others.

*5. Members of the said Board of Governors elected under this Act shall during their tenure of office enjoy equal rights and powers with the other members of the said Board.

Title.

6. This Act may be cited for all purposes as the "South Australian Institute Act Amendment Act, 1879."

PUBLIC LIBRARY, MUSEUM, AND ART GALLERY ACT,
1883-4 ; No. 296 OF 1884.

Constitution of Board.

Under Section 7 of this Act it is enacted that :—

The Board of Governors of the Public Library, Museum, and Art Gallery of South Australia shall consist of sixteen members of whom

1. The Governor shall appoint eight members.
2. The South Australian Society of Arts shall elect one member, who shall be a member of the said Society.
3. The University of Adelaide shall elect two members, who shall be members of the said University.
4. The Royal Society of South Australia shall elect one member, who shall be a member of the said Society.
5. The Adelaide Circulating Library, as hereinafter established, shall elect one member, who shall be a member of the said Library.
6. The Institutes shall elect three members.

This Section further enacts that :—

The elections of members of the Board by the several bodies of persons or societies mentioned in this Section shall take place and be conducted in the manner prescribed by the rules and regulations contained in the first schedule hereto, or such other rules and regulations as may from time to time be made in addition to, or in substitution for, or in amendment of, those rules and regulations; and the expressions "Board" and "Board of Governors" used in the South Australian Institute Act Amendment Act, 1879, and in any statutes or regulations made thereunder, shall refer to the Board constituted by this Act. Upon the appointment and election of members of the Board, and thereafter in the month of November in each year, the Government shall cause to be published in the *Government Gazette* a list of the members of the Board, which *Gazette* shall be *prima facie* evidence that the persons named therein are the members of the Board as therein specified.

Election of members of the Board.

Section 9 enacts that :—

The first appointment by the Governor of members of the Board, and the first elections of members of the Board by the several bodies of persons or societies mentioned in Section 7 of this Act, shall be made and take place respectively within one calendar month from the coming

into operation of this Act ; and thereafter, in the month of October in every year, the Governor and the several bodies of persons or societies mentioned in Section 7 of this Act shall appoint and elect members of the Board ; and every appointed or elected member of the Board shall hold office until the election or appointment of his successor, and shall then retire, but shall be eligible for re-election.

All members to be on same footing.

Section 10.—All the members of the Board, whether appointed or elected, shall have and exercise the same rights, privileges, and powers, and be under and subject to the same liabilities.

Casual vacancy, how filled.

Section 11.—The Governor may appoint a member of the Board upon any casual vacancy occurring through the death, resignation, or removal of any member of the Board appointed by him, and any casual vacancy caused by the death or resignation of any member of the Board elected by any of the several bodies of persons or societies mentioned in Section 7 of this Act may be filled by the election of a person by the body of persons or society who shall have elected the member so dying or resigning. Any member of the Board elected under this Section shall hold office for the same period as the member so dying or resigning would have held office had no such vacancy occurred. Every appointment or election under this Section shall be notified by the Governor in the *Government Gazette*, and such *Gazette* shall be *prima facie* evidence of the appointment or election so notified.

On failure to elect, the Governor may appoint.

Section 12.—If the University of Adelaide, the Royal Society of South Australia, the Adelaide Circulating Library, or the Institutes, or any of them, shall fail or neglect to exercise their right of election given by this Act, the Governor may appoint a member or members of the Board, who shall hold office for the same period and in all respects as if he or they had been elected by the body of persons or society so making default. The provision of this Section shall also apply to any casual vacancy caused by the death or resignation of any elected member of the Board.

Repeal.

Section 51 repeals Sections 1 and 5 of the Act No. 151 of 1879 intituled "The South Australian Institute Act Amendment Act."

The following is the portion of the First *Schedule* (referred to in Clause 7) which regulates the election of members of the Board by the University of Adelaide :—

Rules and Regulations for the election of members of the Board.

ELECTION BY THE UNIVERSITY OF ADELAIDE.

1. The members of the Board to be elected by the University of Adelaide shall be elected in manner prescribed by the "South Australian Institute Act Amendment Act, 1879," and the statutes and regulations made or to be hereafter made thereunder for the election by the University of Adelaide of members of the Board of Governors of the South Australian Institute ; and the expressions "Board" and "Board of Governors" used in that Act and in the statutes and regulations made thereunder shall refer to the Board of Governors of the Public Library, Museum, and Art Gallery of South Australia. The result of every such election shall be certified to the Governor, under the hand of the Chancellor or Vice-Chancellor of the University, whose certificate shall be conclusive as to the validity of such election.

STATUTES.

Under the powers given by the S.A. Institute Act Amendment Act of 1879 the following Statutes have been made :

1. Meetings of the University to elect members of the Board of Governors of the South Australian Institute shall be held in Adelaide at such places as the Council shall from time to time appoint.

2. So soon as conveniently may be after these Statutes shall have been allowed and countersigned by the Governor, the Council shall convene a meeting of the University to elect two members of the said Board.

3. The Council shall also convene the University to meet on some day in each month of October to elect two members of the said Board.

4. Whenever the office held by any member of the said Board elected by the University shall become vacant during the period for which he was elected, the Council shall, so soon as conveniently may be thereafter, convene a meeting of the University to elect another member in his room.

5. Every meeting of the University for the election of a member of the said Board shall be convened not less than ten days before the day appointed for the meeting by the Registrar by a circular, specifying the place and time of meeting, and sent by post to the last known address in South Australia of, or delivered to, all members of the University who are resident in the Province.

6. Candidates shall be nominated in writing signed by two members of the University, and sent to the Registrar so as to reach him at least two days before the day appointed for the meeting, and no candidate will be eligible for election unless his written consent to act, if elected, reaches the Registrar not later than two days before the day of meeting.

7. If only the required number of members shall be eligible, the Chairman of the meeting shall declare such member or members elected.

8. If more than the required number of members be eligible, a printed voting paper containing the names of such members shall be given to each member present at the meeting, who may vote for the required number of candidates by striking out the names of the members for whom he does not vote.

9. The votes so given shall be counted by two tellers appointed by the Chairman before the election is proceeded with. The number of votes given for each candidate shall be reported in writing by the tellers to the Chairman, who shall then declare the result of the election.

10. At every such meeting the Chancellor, or in his absence the Vice-Chancellor, or in their absence the Warden of the Senate (if present) shall preside as Chairman, and in the absence of the Chancellor, Vice-Chancellor, and Warden, the members of the University present shall elect a Chairman.

11. No such meeting shall be constituted unless at least twelve members of the University be present within fifteen minutes after the time appointed for holding the meeting. At every such meeting all questions shall be decided by the majority of the members present. In case of an equality of votes on any question or for any candidate, the Chairman shall give a casting vote.

12. The proceedings of and elections made by each such meeting shall be recorded by the Registrar in a book kept for that purpose, and shall be signed by the Chairman.

Allowed : April, 1880.

Representatives at the Board of Governors of the Public Library,
Museum, and Art Gallery of South Australia.

Elected October, 1889,

Edward Vaughan Boulger, M.A., D.LITT.,

Horatio Thomas Whittell, M.D.

THE HOSPITAL ACT AMENDMENT ACT, 1884, AMENDING
THE HOSPITALS ACT, 1867.

No. 306 of 1884.

University to elect one member, and Commissioners of Hospital another.

Section IX. of this Act enacts that, "At any time in the months of January or February in every year the Council of the University of Adelaide may elect one member of the Board of Management of the Adelaide Hospital, and the Commissioners of the Adelaide Hospital may elect another member of the said Board."

Elections to be notified to Chief Secretary, and Governor to appoint sixteen in all, including persons elected.

Section X., "On or before the twenty-eighth day of February in every year the electing parties shall notify to the Chief Secretary the names of the persons elected by them, respectively, as members of the Board of Management of the Adelaide Hospital, and on or before the thirty-first day of March following, the Governor shall appoint the persons so elected to be members of the said board, and shall also appoint as many other persons as shall, together with the members so elected, be enough to make up the whole number of members to sixteen, whereof not more than eight are to be medical practitioners.

Representative at the Board of Management of the Adelaide
Hospital,

Elected January, 1890,

Edward Willis Way, M.D., M.R.C.S. (Eng.)

STANDING ORDERS OF THE SENATE OF THE
UNIVERSITY OF ADELAIDE.

I. THE OFFICERS OF THE SENATE.

1. A member of the Senate shall be elected annually as Warden and his functions.
Warden.
2. The Warden shall preside at all meetings at which he is present.
3. The Warden shall take the chair as soon after the hour of meeting as twenty members are present.
4. If the office of Warden be vacant, or if the Warden shall be absent, or shall desire to take part in a debate, the Senate shall elect a Chairman, who, while in the Chair, shall have all the powers of the Warden ; but if the Warden shall arrive after the Chair is taken, or shall cease to take part in a debate, the Chairman shall vacate the Chair. In absence of Warden, Senate may elect a Chairman.
5. A Clerk of the Senate shall be elected annually, and shall perform such duties as may be directed by the Warden. Clerk of Senate and his duties.
6. The Clerk shall receive all notices of motion or of questions, and also all nominations of candidates for the office of Warden, Clerk, or Member of Council.
7. The Clerk shall prepare, under the direction of the Warden, a Notice-Paper of the business of every meeting, and issue it with the circular calling the meeting.
8. The Clerk shall, under the direction of the Warden, record in a book the Minutes of the Votes and Proceedings of the Senate.
9. Whenever an extraordinary vacancy shall occur in the office of Clerk, or when he shall be unable to act, the Warden may appoint some suitable person to act until a Clerk shall have been appointed.
10. Whenever an extraordinary vacancy shall occur in the office of Warden, or when the Warden shall from any cause be unable to act, the Clerk shall perform the duties of Warden until the next meeting of the Senate.

II. MEETINGS OF THE SENATE.

11. The Senate shall meet at the University on the fourth Wednesday in the months of March, July, and November respectively ; but if the Warden is of opinion that there is not sufficient business to bring before the Senate, he may direct notice to be issued that the meeting shall for that time lapse. Times of meeting of Senate.

Special Meetings,
how convened.

12. The Warden may at any time convene a meeting of the Senate.

13. Upon a requisition signed by twenty members of the Senate, setting forth the objects for which they desire the meeting to be convened, the Warden shall convene a special meeting to be held within not less than seven nor more than fourteen days from the date of the receipt by him of such requisition.

Quorum.

14. If after the expiration of a quarter of an hour from the time appointed for the meeting there shall not be twenty members present the meeting shall lapse.

Adjournments.

15. If it shall appear on notice being taken, or on the report of a division by the tellers, that twenty members are not present, the Warden shall declare the meeting at an end or adjourned to such time as he shall direct, and such division shall not be entered on the Minutes.

16. The Senate may adjourn any meeting or debate to a future day.

III. NOTICES.

Notices of Meetings
and of Motions.

17. Notice of every meeting shall be given by circular posted six clear days before such meeting to the last-known address of every member resident in the colony.

18. All notices of motion or of questions and all nominations must reach the Clerk at the University, before 5 p.m. on the eleventh day before the day of meeting.

IV. CONDUCT OF BUSINESS.

A. AGENDA.

Order of transaction
of Business.

19. The business at any meeting shall be transacted in the following order, and not otherwise, except by direction of the Senate :

- a. Reading, amendment, and confirmation of Minutes.
Business arising out of the Minutes.
- b. Election of Warden and Clerk.
- c. Election of Members of the Council.
- d. Questions.
- e. Business from the Council.
- f. Motions on the Notice-paper.
- g. Other business.

Of Motions not on
the Notice-Paper.

20. Except by permission of two-thirds of the members present, no member shall make any motion initiating for discussion a subject which has not been duly inserted on the Notice-Paper for that meeting.

21. Except subject to the preceding Order, no business shall be entered on at an adjourned meeting which was not on the Notice-Paper for the meeting of which it is an adjournment.

B. RULES OF DEBATE.

22. Whenever the Warden rises during a debate any member then speaking or offering to speak shall sit down and the Warden shall be heard without interruption. Rules of Debate.

23. If the Warden desires to take part in a debate, he shall vacate the chair for the time.

24. Every member desiring to speak shall rise in his place and address himself to the Warden.

25. When two or more members rise to speak the Warden shall call upon the member who first rose in his place.

26. A motion may be made that any member who has risen "be now heard," and such motion shall be proposed, seconded, and put without discussion or debate.

27. Any member may rise at any time to speak "to order."

28. A member may speak upon any question before the Senate, or upon any amendment proposed thereto, or upon a motion or amendment to be proposed by himself, or upon a point of order, but not upon the motion that the question be now put, or that a member be now heard. On what question a Member may and may not speak.

29. By the indulgence of the Senate a member may explain matters of a personal nature, although there be no question before the Senate, but such matters may not be debated. Personal explanations.

30. No member may speak twice to a question before the Senate except in explanation or reply; but a member who has merely formally seconded a motion or amendment shall not be deemed to have spoken. Rules of Debate.

31. A member who has spoken to a question may again be heard to explain himself in regard to some material part of his speech, but shall not introduce any new matter.

32. A reply shall be allowed to a member who has made a substantive motion, but not to any member who has moved an amendment.

33. No member may speak to any question after it has been put by the Warden and the show of hands has been taken thereon.

34. No member shall reflect upon any vote of the Senate except for the purpose of moving that such vote be rescinded.

Of Motions.

35. In the absence of a member who has given notice of a motion any member present may move such motion.

36. A motion may be amended by the mover with leave of the Senate.

37. Any member proposing an amendment may be required to deliver it in writing to the Warden.

Motions and Amendments must be seconded.

38. Any motion or amendment not seconded shall not be further discussed, and no entry thereof shall be made on the Minutes.

Withdrawal of questions.

39. A member who has made a motion or amendment may withdraw the same by leave of the Senate, granted without any negative voice.

40. No motion or amendment shall be proposed which is the same in substance as any question which during the same meeting has been resolved in the affirmative or the negative.

41. The Senate may order a complicated question to be divided.

42. When amendments have been made the main question as amended shall be put.

43. When amendments have been proposed but not made, the question shall be put as originally proposed.

Suspension of questions.

44. A question may be suspended—

(a) By a motion, "That the Senate proceed to the next business."

(b) By the motion "That the Senate do now adjourn."

45. A debate may be closed by the motion "That the question be now put," being proposed, seconded, and carried, and the question shall be put forthwith without further amendment or debate.

C. DIVISIONS

Divisions.

46. So soon as a debate upon a question shall be concluded, the Warden shall put the question to the Senate.

47. A question being put shall be decided in the first instance by a show of hands.

48. The Warden shall state whether in his opinion the "Ayes" or the "Noes" have it, but any member may call for a division.

49. When a division is called the Warden shall again put the question, and shall direct the "Ayes" to the right and the "Noes" to the left, and shall appoint a teller for each party.

50. The vote of the Warden shall be taken before the other votes, without his being required to leave the chair.

51. Every member present when a division is taken must vote, except as hereinafter provided.

52. No member shall be entitled to vote in any division unless he be present when the question is put.

53. No member shall be entitled to vote upon any question in which he has a direct pecuniary interest, and the vote of any member so interested shall be disallowed if the Warden's attention be called to it at the time.

54. In case of an equality of votes the Warden shall give a casting vote, and any reasons stated by him shall be entered in the Minutes. Warden to have a Casting Vote.

55. An entry of the lists of divisions shall be made by the Clerk in the Minutes.

56. In case of confusion or error concerning the numbers reported, unless the same can be otherwise corrected, the Senate shall proceed to another division.

57. While the Senate is dividing, members can speak only to a point of order.

D. ELECTIONS.

58. The annual election of Warden and of Clerk shall take place at the ordinary meeting in March. Elections of Warden and Clerk and Members of Council.

59. Members of the Council shall be elected at the first meeting held after the vacancy shall have become known to the Warden.

60. The members of the Senate shall be informed by circular when any vacancy occurs in the office of Warden, Clerk, or Member of Council, and such circular shall state the date up to which nominations will be received.

61. Every nomination shall be signed by at least two members of the Senate. Nominations to vacancies.

62. No person shall be proposed for election whose name has not appeared on the Notice-paper.

63. Any person nominated as a candidate for any office may by letter request the Clerk to cancel his nomination, and the receipt of such letter shall be held to cancel such nomination. Nominations, how cancelled.

64. In all elections if no more than the required number of persons be nominated, the Warden shall declare them elected.

65. If more than the required number of persons be nominated, voting papers shall be distributed and every member present shall vote for the required number of candidates ; but no member who has a direct pecuniary interest in the result of the election shall be allowed to vote. Voting papers.

66. When the voting papers have been distributed the doors shall be closed until such time as the papers shall have been collected.

Scrutineers.

67. The Warden shall appoint from the members present as many scrutineers as he shall think proper, and shall assign them their duties.

68. The votes shall be counted by the scrutineers, and the number of votes given for each candidate shall be reported to the Warden, who shall then declare the result of the election.

E. QUESTIONS.

Questions.

69. Questions touching the affairs of the University may be put to the Warden or to the Representative of the Council in the Senate.

70. The Warden may disallow any question which he thinks ought not to be put, and may alter and amend any question which is not in accordance with the Standing Orders, or which is in his opinion injudiciously worded.

71. The Warden or Representative of the Council to whom a question is put, may without reason assigned decline to answer at all or until notice thereof has been duly given.

72. By permission of the Senate any member may put a question in the absence of the member who has given notice of it.

73. By permission of the Senate a member may amend in writing a question of which he has given notice and put it as amended.

74. In putting any question no argument or opinion shall be offered nor shall any facts be stated except so far as may be necessary to explain such question.

75. In answering any question the matter to which it refers shall not be debated.

76. Replies to questions, of which notice has been given, shall be in writing, and having been read, shall be handed to the Clerk, and recorded in the Minutes.

77. Questions not on the Notice Paper shall not be recorded in the Minutes, nor shall the answers thereto.

F. COMMITTEE OF THE WHOLE SENATE.

78. A Committee of the whole Senate is appointed by a resolution "That the Senate do now resolve itself into a Committee of the whole."

79. The Warden shall be Chairman of such Committee unless he be unwilling to act, in which case any other member may be voted to the chair. Warden to be Chairman unless unwilling to act.

80. When the matters referred to the Committee have been disposed of the Senate resumes, and the report of the Committee is at once proposed to the Senate for adoption.

81. When the matters so referred have not been disposed of, the Senate having resumed and having received a report of the Committee to the effect that the matters have not been fully disposed of, may appoint a future day for the Committee to sit again.

82. A member may speak more than once to each question.

83. A motion need not be seconded.

V. SELECT COMMITTEES.

84. Select Committees, unless it be otherwise ordered, shall consist of five members, who shall elect their own Chairman, and of whom three shall be a quorum. Select Committees, Quorum.

85. The Chairman shall have both a deliberative and a casting vote.

86. At the time of the appointment of the Committee the Senate shall instruct the Committee as to the matters to be reported on by them, and their report shall be confined to such matters. Reports of Select Committees

87. The Chairman shall present the report of the Committee to the Senate, and it shall be forthwith discussed or postponed for future consideration.

VI. SUSPENSION OF STANDING ORDERS.

88. Any of these Standing Orders may be suspended for the time being on motion made with or without notice, provided that a quorum shall be present, and that such motion shall have the concurrence of at least two-thirds of the members present.

The above Standing Orders were adopted by the Senate at a meeting held on the 2nd day of December, 1885, the previous code having been rescinded.

December 2nd, 1885.

FREDERIC CHAPPLE,
WARDEN.

The University of Adelaide.

1890.

I.
VISITOR.

HIS EXCELLENCY THE GOVERNOR.

THE COUNCIL.

THE CHANCELLOR:

Elected for the second time, 6th January, 1888.

THE HON. SAMUEL JAMES WAY, Chief Justice of South Australia.

THE VICE-CHANCELLOR:

Elected for the second time, 29th November, 1889.

THE VENERABLE ARCHDEACON GEORGE HENRY FARR, M.A.,
LL.D.

Elected by the Senate, 23rd March, 1887.

SIR SAMUEL DAVENPORT, K.C.M.G., LL.D.

Elected by the Senate, 30th November, 1887.

THE RIGHT REV. GEORGE WYNDHAM KENNION, M.A., D.D.,
Bishop of Adelaide.

WILLIAM ROBINSON BOOTHBY, B.A. (Sheriff of the Province).

SIR JOHN WILLIAM DOWNER, K.C.M.G., Q.C., M.P.

THE HON. DAVID MURRAY, M.L.C.

THE REV. WILLIAM ROBY FLETCHER, M.A.

Elected by the Senate, 28th March, 1888.

JAMES WALTER SMITH, LL.D.

EDWARD CHARLES STIRLING, M.A., M.D.

JOHN DAVIES THOMAS, M.D.

Elected by the Senate, 28th November, 1888.

WILLIAM BARLOW, LL.D.

JOHN ANDERSON HARTLEY, B.A., B.Sc.

JOHN ALEXANDER COCKBURN, M.D., M.P.

FREDERICK AYERS, M.A.

Elected by the Senate, 24th July, 1889.

JAMES HENDERSON, B.A.

Elected by the Senate, 27th November, 1889.

CHARLES TODD, M.A., C.M.G., F.R.S.

ADOLPH VON TREUER, LL.B.

EDWARD HENRY RENNIE, M.A., D.Sc.
 THE REV. DAVID PATON, M.A., B.D., D.D.
 WILLIAM AUSTIN HORN, M.P.
 THE VENERABLE GEORGE HENRY FARR, M.A., LL.D.

II.

THE SENATE.

WARDEN : FREDERIC CHAPPLE, B.A. (London, 1870).

DOCTORS OF LAWS.

BARLOW, WILLIAM (Dublin, 1884)	...	...	...	...	...	1885
BARRY, ALFRED (Oxford)	...	...	...	...	...	1889
FARR GEORGE HENRY (Cambridge, 1882)	...	...	...	...	...	1883
KINTORE, THE EARL OF (Aberdeen)	...	...	...	...	...	1889
SMITH JAMES WALTER (London, 1856)	...	...	...	...	...	1882
DAVENPORT, SIR SAMUEL (Cambridge, 1886)	...	...	...	...	...	1888

DOCTORS OF MEDICINE.

ASTLES, HARVEY EUSTACE (St. Andrews, 1883)	...	...	...	...	...	1885
COCKBURN, JOHN ALEXANDER (London, 1874)	...	...	...	...	...	1877
DEANE, CHARLES MASLEN (Edinburgh, 1862)	...	...	...	...	...	1877
ENGELHART, AUGUST FRIEDRICH GOTTFRIED (Giessen, 1870)	...	...	...	...	...	1877
ESAU, CHARLES FREDERICK HERMAN (Göttingen, 1851)	...	...	...	...	...	1877
GARDNER, WILLIAM (Glasgow, 1876)	...	...	...	...	...	1877
GÖRGER, OSCAR (Heidelberg, 1871)	...	...	...	...	...	1878
HAMILTON, THOMAS KINLEY (Dublin, 1879)	...	...	...	...	...	1885
LONDON, ALFRED AUSTIN (London, 1881)	...	...	...	...	...	1883
MACKINTOSH, JAMES SUTHERLAND (Edinburgh, 1838)	...	...	...	...	...	1878
MAGAREY, SYLVANUS JAMES (Melbourne, 1888)	...	...	...	...	...	1888
MITCHELL, JAMES THOMAS (Aberdeen, 1885)	...	...	...	...	...	1885
NEUBAUER, MAX FRIEDRICH (Munich, 1873)	...	...	...	...	...	1877
NIESCHE, FREDERICK WILLIAM (Edinburgh)	...	...	...	...	...	1889
PATERSON, ALEXANDER STUART (Edinburgh, 1857)	...	...	...	...	...	1877
POULTON, BENJAMIN (Melbourne, 1883)	...	...	...	...	...	1884
RENNER, FRIEDRICH EMIL (Jena, 1847)	...	...	...	...	...	1877
SEABROOK, THOMAS EDWARD FRAZER (St. Andrews, 1861)	...	...	...	...	...	1877
STEWART ROBERT (Melbourne, 1886)	...	...	...	...	...	1886
STIRLING, EDWARD CHARLES (Cambridge, 1880)	...	...	...	...	...	1882
SWIFT, HARRY (Cambridge, 1887)	...	...	...	...	...	1888
SYMONS, MARK JOHNSTON (Edinburgh, 1878)	...	...	...	...	...	1885
THOMAS, JOHN DAVIES (London, 1871)	...	...	...	...	...	1877
VERCO, JOSEPH COOKE (London, 1876)	...	...	...	...	...	1877
WATSON, ARCHIBALD (Paris and Göttingen, 1880)	...	...	...	...	...	1885
WHITTELL, HORATIO THOMAS (Aberdeen, 1858)	1877

DOCTOR OF SCIENCE.

RENNIE, EDWARD HENRY (London, 1882)	1885
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MASTERS OF ARTS.

AYERS, FREDERIC (Cambridge, 1875)	1877
BAKEWELL, JOHN WARREN (Cambridge, 1874)	1877
BOULGER, EDWARD VAUGHAN (Dublin, 1872)	1884
BRAGG, WILLIAM HENRY (Cambridge, 1888)	1888
BURTT, THOMAS (Cambridge, 1855)	1877
CAMPBELL, COLIN ARTHUR FITZGERALD (Cambridge)	1889
CARR, WHITMORE (Dublin, 1848)	1877
CHAPMAN, ROBERT WILLIAM (Melbourne)	1889
COOKE, WILLIAM ERNEST	1889
D'ARENBERG, FREDERICK AUGUSTUS (Dublin, 1876)	1881
DENDY, ARTHUR (Oxford, 1851)	1877
DOVE, GEORGE (Cambridge, 1859)	1877
ELCUM, CHARLES CUNNINGHAM (Cambridge)	1879
FARR, GEORGE HENRY (Cambridge, 1853)	1877
FIELD, THOMAS (Cambridge, 1857)	1877
FLETCHER, WILLIAM ROBY (London, 1856)	1877
HOLLIDGE, DAVID HENRY	1889
HOWELL, EDWARD TUCKER (Oxford, 1860)	1877
KEARNEY, ALAN WELLS (Cambridge)	1889
KELLY, DAVID FREDERICK (Cambridge, 1878)	1879
KENNION, GEORGE WYNDHAM (Oxford, 1871)	1883
KINTORE, THE EARL OF (Cambridge)	1889
LAMB, HORACE (Cambridge, 1875)	1877
LINDON, JAMES HEMERY (Cambridge, 1884)	1886
LOWRIE, WILLIAM (Edinburgh, 1883)	1888
MACBEAN, JOHN (Aberdeen, 1832)	1877
MARRYAT, CHARLES (Oxford, 1853)	1877
MEAD, SILAS (London, 1859)	1877
MÜCKE, CARL WILHELM LUDWIG (Jena, 1847)	1877
PATON, DAVID (Glasgow, 1864)	1878
POOLE, FREDERICK SLANEY (Cambridge, 1875)	1877
POOLE, HENRY JOHN (Oxford, 1856)	1877
RENNICK, FRANCIS HENRY (Melbourne, 1880)	1882
ROBIN, PERCY ANSELL (London, 1885)	1885
SELLS, ALFRED (Cambridge, 1847)	1877
SHARP, WILLIAM HEY (Oxford, 1871)	1877
STANFORD, WILLIAM BEDELL (Oxford, 1864)	1879
STIRLING, EDWARD CHARLES (Cambridge, 1872)	1877
STUCKEY, JOSEPH JAMES (Cambridge, 1864)	1877
SUTHERLAND, ARCHIBALD COOK (Edinburgh)	1889
SUTHERLAND, GEORGE (Melbourne, 1879)	1882
SYMON, WILLIAM (St. Andrews, 1876)	1879
THOMAS, THOMAS EGGLESTON (Melbourne, 1881)	1883
TODD, CHARLES (Cambridge, 1886)	1886
WEBB, ROBERT BENNETT (Oxford, 1869)	1877

WEST-ERSKINE, WILLIAM ALEXANDER ERSKINE (Oxford, 1864)	1877
WILLIAMS, FRANCIS (Oxford, 1860)	1877
WOOD, MONTAGUE COUCH (Oxford, 1880)	1888
YOUNG, WILLIAM JOHN (Dublin, 1882)	1883

BACHELORS OF LAWS.

ANDERSON, JAMES ROBERT	1884
BOOTHBY, CHARLES BRINSLEY	1886
DOWNER, GEORGE HENRY	1885
GILES, THOMAS O'HALLORAN (Cambridge, 1883)	1886
GILL, ALFRED	1885
HALL, ROBERT WILLIAM	1884
HARRIS, FRANK DIXON	1886
HAWKER, EDWARD WILLIAM (Cambridge, 1873)	1877
HAY, JAMES (Cambridge, 1880)	1883
HENDERSON, WILLIAM	1884
HEWITSON, THOMAS	1884
JEFFERIS, JAMES (London, 1856)	1877
MELROSE, ALEXANDER	1886
PHILLIPS, WALTER ROSS (Cambridge, 1878)	1883
SABINE, CLEMENT EGBERT EPPES	1884
SEWELL, CHARLES EDWARD	1886
SMITH, SYDNEY TALBOT (Cambridge, 1884)	1886
STIRLING, JOHN LANCELOT (Cambridge, 1871)	1877
TUCKER, WILLIAM ALFRED EDGCUMBE	1885
VARLEY, CHARLES GRANT	1884
Von TREUER, ADOLPH (Dorpat, 1844)	1877
WEBB, NOEL AUGUSTIN	1886
WHITTINGTON, FREDERICK TAYLOR	1886

BACHELORS OF MEDICINE.

ALTMANN, CHARLES AUGUST (Melbourne, 1883)	1883
BORTHWICK, THOMAS (Edinburgh, 1881)	1888
CLELAND, WILLIAM LENNOX (Edinburgh, 1876)	1880
FINNISS, JOHN HENRY SUFFIELD (Edinburgh, 1876)	1886
GILES, WILLIAM ANSTEY (Edinburgh, 1882)	1886
HAMILTON, ALEXANDER ARCHIBALD (Dublin, 1880)	1883
HAMILTON, JAMES ALEXANDER GREER (Dublin, 1876)	1880
HOPE, CHARLES HENRY STANDISH	1889
LLOYD, HENRY SANDERSON (Edinburgh, 1883)	1883
NESBIT, WILLIAM PEEL (Edinburgh, 1873)	1877
WAY, EDWARD WILLIS (Edinburgh, 1871)	1877

BACHELORS OF ARTS.

BARLOW, WILLIAM (Dublin, 1855)	1877
BEARE, THOMAS HUDSON	1887
BOOTHBY, WILLIAM ROBINSON (London, 1850)	1877
BOWYEAR, GEORGE JOHN SHIRREFF (Cambridge, 1871)	1882

BYARD, DOUGLAS JOHN (Oxford)	1889
CATERER, THOMAS AINSLIE (Clerk of the Senate)	1876
CHAPPLE, FREDERIC (London, 1870)	1877
CHURCHWARD, SAMUEL (London, 1873)	1877
CORVAN, JAMES HAMILTON (Dublin, 1865)	1877
DONALDSON, ARTHUR	1881
DONALDSON, GEORGE	1882
GILL, ALFRED	1882
HACKETT, JAMES THOMPSON (Melbourne, 1879)	1882
HALCOMB, FREDERICK (Oxford, 1859)	1877
HARTLEY, JOHN ANDERSON (London, 1868)	1877
HAY, JAMES (Cambridge, 1880)	1883
HENDERSON, JAMES	1880
HOCTOR, JOHN FRANCIS (Dublin, 1871)	1877
HOPE, CHARLES HENRY STANDISH (Cambridge)	1889
HOPKINS, WILLIAM FLEMING	1884
HUGHES, ALFRED (Cambridge, 1886)	1889
KERR, DONALD ALEXANDER	1883
KINGSMILL, WALTER	1883
LABATT, EDWARD (Dublin, 1870)	1877
LABATT, GEORGE AUGUSTUS (Dublin, 1839)	1877
LEITCH, JAMES WESTWOOD	1884
LEONARD, JAMES (London, 1849)	1877
MACK, HANS HAMILTON	1880
MATHEWS, RICHARD TWITCHELL (London, 1883)	1883
MOORE, EDWIN CANTON	1882
MORSE, CHARLES WILLIAM (Cambridge, 1850)	1877
MURRAY, GEORGE JOHN ROBERT	1883
NANKIVELL, JOHN THOMAS (Cambridge, 1871)	1877
PENNEFATHER, FREDERICK WILLIAM (Cambridge, 1874)	1888
ROBIN, CHARLES ERNEST	1886
ROGERS, RICHARD SANDERS	1882
SCOTT, ANDREW (Melbourne, 1881)	1883
SHARP, CECIL JAMES (Cambridge, 1882)	1882
SMEATON, STIRLING	1880
SMYTH, JOHN THOMAS (Melbourne, 1874)	1878
SPICER, EDWARD CLARK (Melbourne, 1877)	1877
SUNTER, JOSEPH TREGILGAS (Melbourne, 1880)	1883
TRELEAVEN, WALTER	1886
TUCKER, WILLIAM ALFRED EDGCUMBE	1885
WALKER, WILLIAM JOHN	1885
WELD, OCTAVIUS (Toronto, 1856)	1877
WILKINSON, FREDERICK WILLIAM	1884
WOODS, JOHN CRAWFORD (Edinburgh, 1843)	1877
YOUNG, ARETAS CHARLES WILLIAM (Oxford, 1871)	1883
BACHELORS OF SCIENCE.	
DORNWELL, EDITH EMILY	1885

WAINWRIGHT, EDWARD HARLEY (London, 1878) 1883

BACHELOR OF MUSIC.

IVES, JOSHUA (Cambridge, 1884) 1885

III.

**GRADUATES IN LAW, IN MEDICINE, IN ARTS, IN SCIENCE,
AND IN MUSIC, WHO ARE NOT MEMBERS OF THE SENATE.**

ROWLEY, FREDERICK PELHAM, LL.B.	21st December, 1887
ISBISTER, WILLIAM JAMES, LL.B.	21st December, 1887
NORTHMORE, JOHN ALFRED, LL.B.	21st December, 1887
HENNING, ANDREW HARRIOT, LL.B.	21st December, 1887
LIMBERT, EDGAR HENRY, LL.B.	21st December, 1887
MANN, CHARLES, LL.B.	21st December, 1887
WALKER, DANIEL, B.Sc.	21st December, 1887
MEAD, CECIL SILAS, B.A.	21st December, 1887
ANDREWS, RICHARD BULLOCK, B.A.	21st December, 1887
WILLIAMS, MATTHEW, B.A.	21st December, 1887
HEINEMANN, EDMUND LEWIS, B.A.	December, 1887
MARTEN, ROBERT HUMPHREY, M.B.	12th January, 1888
BOLLEN, CHRISTOPHER, M.B.	12th June, 1888
HYNES, TIMOTHY AUGUSTIN, M.B.	1st August, 1888
KNOWLES, FRANCIS EDWARD, LL.B.	19th December, 1888
HALL, ANTHONY JAMES ALEXANDER, LL.B.	19th December, 1888
JONES, ALBERT EDWARD, LL.B.	19th December, 1888
DEMPSEY, RICHARD FRANCIS, LL.B.	19th December, 1888
MAGAREY, WILLIAM ASHLEY, LL.B.	19th December, 1888
UPTON, HENRY, LL.B.	19th December, 1888
MELLOR, JAMES TAYLOR, LL.B.	19th December, 1888
SCOTT, DOUGLAS COMYN, LL.B.	19th December, 1888
FARR, CLINTON COLERIDGE, B.Sc.	19th December, 1888
WRIGHT, CHARLOTTE ELIZABETH ARA- BELLA, B.A.	19th December, 1888
BURGESS, THOMAS MARTIN, B.A.	19th December, 1888
WYLLIE, ALEXANDER, B.A.	19th December, 1888
MARRYAT, ERNEST NEVILLE, B.A.	19th December, 1888
FISCHER, GEORGE ALFRED, B.A.	19th December, 1888
HOPKINS, ALFRED NICHOLAS, B.A.	19th December, 1888
SOLOMON, JUDAH MOSS, B.A.	19th December, 1888
KNIGHT, PERCY NORWOOD	19th December, 1888
LEMESURIER, THOMAS ABRAM	19th December, 1888
GILES, EUSTACE, LL.B.	11th May, 1889
WARREN, THOMAS HOGARTH, LL.B.	11th May, 1889
HORN, EDWARD PALMER, LL.B.	18th December, 1889
INGLEBY, RUPERT, LL.B.	18th December, 1889
GOLDSMITH, FREDERICK, M.B., Ch.B.	18th December, 1889

LYNCH, ARTHUR FRANCIS AUGUSTIN, M.B., CH.B.,	18th December, 1889
MAGAREY, CROMWELL, M.B., CH.B.	18th December, 1889
FLETCHER, ALFRED WATKIS, B.Sc.	18th December, 1889
GOYDER, ALEXANDER WOODROFFE, B.Sc.	18th December, 1889
HONE, FRANK SANDLAND, B.A.	18th December, 1889
JONES, THOMAS HENRY, MUS. BAC.	18th December, 1889

IV.

OFFICERS OF THE UNIVERSITY.

PROFESSORS AND LECTURERS.

Hughes Professor of Classics, and Comparative Philology and Literature :

DAVID FREDERICK KELLY, M.A.

Hughes Professor of English Language and Literature, and of Mental and Moral Philosophy :

EDWARD VAUGHAN BOULGER, M.A., D.LITT.

Elder Professor of Mathematics :

WILLIAM HENRY BRAGG, M.A.

Assistant Lecturer on Mathematics and Physics :

ROBERT WILLIAM CHAPMAN, M.A., B.C.E.

Elder Professor of Natural Science :

RALPH TATE, F.G.S., F.L.S.

Angas Professor of Chemistry :

EDWARD HENRY RENNIE, M.A., D.Sc.

Professor of Music :

JOSHUA IVES, MUS. BAC.

Lecturer on Laws :

FREDERICK WILLIAM PENNEFATHER, B.A., LL.M.

Assistant Lecturers on Laws :

ALFRED GILL, B.A., LL.B.

THOMAS HEWITSON, LL.B.

Elder Professor of Anatomy :

ARCHIBALD WATSON, M.D. (Paris and Göttingen), F.R.C.S. (England).

Lecturer on Physiology :

EDWARD CHARLES STIRLING, M.A., M.D. (Cambridge), F.R.C.S. (England).

Joint Lecturers on the Principles and Practice of Medicine and Therapeutics :

JOHN DAVIES THOMAS, M.D. (London), F.R.C.S. (England)

JOSEPH COOK VERCO, M.D. (London), F.R.C.S. (England)

Lecturer on the Principles and Practice of Surgery :

WILLIAM GARDNER, M.D., Ch.M. (Glasgow)

Lecturer on Obstetrics and Diseases peculiar to Women and Children :

EDWARD WILLIS WAY, M.B. (Edinburgh), M.R.C.S. (England)

Lecturer on Materia Medica :

WILLIAM LENNOX CLELAND, M.B. (Edinburgh)

The Dr. Charles Gosse Lecturer on Ophthalmic Surgery :

MARK JOHNSTON SYMONS, M.D., Ch.M. (Edinburgh)

Lecturer on Forensic Medicine :

ALFRED AUSTIN LENDON, M.D. (London), M.R.C.S. (England)

Lecturer on Lunacy :

ALEXANDER STUART PATERSON, M.D. (Edinburgh)

Lecturer on Aural Surgery :

WILLIAM ANSTEY GILES, M.B., Ch.M. (Edinburgh)

Lecturer on Pathological Anatomy and Teacher of Operative Surgery :

ARCHIBALD WATSON, M.D. (Paris and Göttingen), F.R.C.S. (England)

Lecturers on Clinical Medicine :

JAMES THORNBOROUGH HAYWARD, M.R.C.S. (Eng.)

JOHN DAVIES THOMAS, M.D. (London), F.R.C.S. (Eng.)

JOSEPH COOKE VERCO, M.D. (London), F.R.C.S. (Eng.)

Lecturers on Clinical Surgery :

WILLIAM GARDNER, M.D., Ch.M. (Glas.)

BENJAMIN POULTON, M.D. (Melbourne), M.R.C.S. (Eng.)

EDWARD CHARLES STIRLING, M.A., M.D. (Cambridge) F.R.C.S. (Eng.)

CLERK OF THE SENATE.

THOMAS AINSLIE CATERER, B.A.

REGISTRAR.

JOHN WALTER TYAS

REGISTRAR'S CLERK.

CHARLES REYNOLDS HODGE.

COMMITTEES OF THE COUNCIL FOR 1890.

Education Committee.

THE CHANCELLOR

THE VICE-CHANCELLOR

THE BISHOP OF ADELAIDE

DR. PATON

DR. BARLOW

MR. HARTLEY

DR. STIRLING

REV. W. R. FLETCHER

MR. F. AYERS.

PROFESSOR RENNIE

The Finance Committee.

THE CHANCELLOR
THE VICE-CHANCELLOR
MR. MURRAY
MR. HARTLEY
DR. BARLOW.
MR. W. A. HORN

The Library Committee.

THE CHANCELLOR
THE VICE-CHANCELLOR
DR. STIRLING
DR. THOMAS
MR. HARTLEY
REV. W. R. FLETCHER
DR. PATON.
MR. HENDERSON

THE FACULTIES.

THE FACULTY OF LAW.

THE CHANCELLOR
THE VICE-CHANCELLOR
WILLIAM BARLOW, LL.D., B.A. (Dean)
FREDERICK AYERS, M.A.
F. W. PENNEFATHER, B.A., LL.M.
MR. T. HEWITSON, LL.B.
MR. A. GILL, B.A., LL.B.

THE FACULTY OF MEDICINE.

THE CHANCELLOR
THE VICE-CHANCELLOR
SIR JOHN DOWNER
MR. VON TREUER
DR. COCKBURN
DR. GARDNER (Dean)
DR. VESCO
DR. STIRLING
PROFESSOR WATSON
PROFESSOR RENNIE
PROFESSOR TATE
DR. THOMAS
DR. WAY
DR. CLELAND

DR. SYMONS
DR. LENDON
DR. PATERSON
DR. GILES
DR. POULTON
DR. HAYWARD

FACULTY OF ARTS.

THE CHANCELLOR
THE VICE-CHANCELLOR
MR. HARTLEY
THE REV. W. R. FLETCHER
DR. PATON
PROFESSOR KELLY (Dean)
PROFESSOR BOULGER
PROFESSOR BRAGG
MR. CHAPMAN

FACULTY OF SCIENCE.

THE CHANCELLOR
THE VICE-CHANCELLOR
MR. HARTLEY
MR. TODD
DR. THOMAS
PROFESSOR RENNIE (Dean)
PROFESSOR BRAGG
PROFESSOR TATE
DR. STIRLING
MR. CHAPMAN

BOARD OF MUSICAL STUDIES.

THE CHANCELLOR
THE VICE-CHANCELLOR
REV. W. R. FLETCHER
DR. PATON
MR. VON TREUER
PROFESSOR IVES (Chairman)
PROFESSOR BRAGG

BOARD OF DISCIPLINE.

THE CHANCELLOR
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THE DEAN OF THE FACULTY OF LAW
THE DEAN OF THE FACULTY OF MEDICINE
THE DEAN OF THE FACULTY OF SCIENCE
THE DEAN OF THE FACULTY OF ARTS
THE CHAIRMAN OF THE BOARD OF MUSICAL STUDIES.

UNDERGRADUATE STUDENTS: SESSION 1889.**LL.B. DEGREE.**

Andrews, Richard Bullock
 Andrews, Walter Frederick
 Beare, Edwin Arthur
 Benham, Edward Warner
 Benny, Benjamin
 Bertouch, Rudolph Paul Albrecht von
 Bloxam, Charles a'Court
 Bonnin, Alfred
 Cleland, Edward Erskine
 Cole, Stephen Baldwin Sarmon
 Cox, Arthur Percival
 Fox, John Henry
 Gunson, William Joseph
 Gwynne, Iltyd Gordon
 Hargrave, Joshua Addison
 Heggaton, Horace John

Heuzenroeder, William Eberhard
 Horn, Edward Palmer
 Hourigan, Richard Edward
 Ingleby, Rupert
 McDougall, James Gilbert
 Mitchell, Samuel James
 Oldham, Alfred Mulville
 Price, Arthur Jennings
 Sabine, Ernest Maurice
 Solomon, Judah Moss
 Stow, Francis Leslie
 Valentine, Harry
 Weinrich, Joseph Hermann
 Winnall, John Edward Hyde
 Wright, Lewis Garner
 Wyatt, Frank Addison

M.B. DEGREE.

Anderson, Tressilian George
 Beyer, Franz Victor
 Cavenagh, Wentworth Rowland
 Corbin, Cecil
 Cudmore, Arthur Murray
 Embling, Austin Henry Chinnoek
 Fowler, Laura Margaret
 Gibbes, Alexander Edward
 Giles, Henry O'Halloran
 Goldsmith, Frederick
 Good, Joseph Ernest
 Goode, Arthur
 Gunson, John Bernard
 Hope, Charles Henry Standish

Irwin, Henry Offley
 Lynch, Arthur Francis Augustin
 Magarey, Cromwell
 Mead, Cecil Silas
 Morgan, Alexander Mathieson
 Moule, Edward Ernest
 Powell, Henry Arthur
 Robin, Vincent John
 Russell, Alfred Edward James
 Sangster, John Iken
 Seabrook, Leonard Llewellyn
 Shanahan, Patrick Francis
 Verco, William Alfred

B.A. DEGREE.

Butler, Fredick Stanley
 Devenish, Albert Sydney
 Doolette, Dorham Longford
 Fletcher, Lancelot Kohry

Frewin, Thomas Hugh
 Heyne, Agnes Marie Johanna
 Hone, Frank Sandland
 McCarthy, Walter James

B.Sc. DEGREE.

Allen, James Bernard
 Benham, Constance Mary
 Benham, Ellen Ida
 Chapple, Frederic John
 Coleman, Frederick
 Corbin, Hugh Burton
 Earp, Francis Salisbury
 Fletcher, Alfred Watkis
 Goyder, Alexander Woodroffe
 Haycraft, Edith Florence
 Isbister, James Linklater Thomson

Kirby, Mary Maude
 Lawrance, David Hermann
 Muecke, Dora Julia
 Müller, Charlotte Mary
 Pülleine, Robert Henry
 Simpson, Alfred Edward
 Solomon, Susan Selina
 Trehy, Annie Louise Virginia
 Turner, Ernest Frederick
 Wheatley, Frederick William

MUS. BAC. DEGREE.

Benny, Frances	Mann, Frances
Best, Edwin	Mitchell, Ernest Edwin
Bosch, Dorothea Elise	Moore, Anna Theresa
Bundey, Ellen Milne	Pybus, William Richard
Campbell, Florence Way	Püttmann, Franziska Helena Marie
Cave, Ellen May	Sanders, William
Cawley, May Mary	Simpson, Mary King
Davis, Hester Lilian	Stenhouse, Rosa
Fray, John Hill	Tilly, Florence Mary
Hamilton, Mary Coulls	Townsend, Alice Annie
Hawkins, Fanny Susanna	Way, Florence Jane Elizabeth
Jones, Thomas Henry	Way, Kate Isabel
Jury, Aliee Emily	Whittell, Anna Maria Prince
Law, Emily Augusta	Winwood, Susan Ann
Loessel, Rhea Marie	Wyatt, Ethel Wyatt

**STUDENTS NOT STUDYING FOR A DEGREE, AND EVENING
CLASS STUDENTS: SESSION 1889.**

LAW.

Foster, Henry Edgar	Whitby, Percy Edward Robert
Greer, George Alfred	Wigley, Henry Vandeleur
Stewart, Arthur	Wooldridge, William Phillips
Stockdale, William John	

MEDICINE.

Borthwick, Ernest Lincoln	Harbison, James Alexander
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LATIN.

Gunson, William Joseph	Halcombe, Guy Worthington
------------------------	---------------------------

ENGLISH LANGUAGE, &c.

Benham, Agnes	Haslam, Ernest Bailey
Goode, Mabel Faith	Overbury, Margaret

FRENCH.

Bradtke, Miss	Goode, M.
Cavenagh, W. P.	Jacob, Ann
Cox, Catherine	Kay, F.
Cox, Lois	Kay, M.
Davies, Seymour	Stockdale, Annie

MENTAL AND MORAL SCIENCE.

McLeod, Peter

MATHEMATICS.

Grayson, L. G.	Laurie, E. C.
Hayward, T. C.	Nichols, H. F.
Heynemann, Wilhelmina Susannah	Noack, J. C.
Hillier	Richardson, Frank Joseph Webb
Jenner, Charles James	Stoward, F.
Kollosche, John	Walters, S.
Korff, A. J.	

PHYSICS.

Arthur, John Hollow
 Baird, W.
 Bayly, H. G.
 Bow, W.
 Carter, John
 Coulter, John Francis
 Davies, L. A.
 Denny, Mary
 Dettmer, H. J.
 Dickins, S. G. O.
 Doig, Peter Garibaldi
 Edmunds, V. H.
 Edwards, E. F.
 England, A. W.
 England, M. R.
 Field, Martha Ann
 Fisher, Ella Constance
 Frampton, N. P.
 Goodwin, Prudence Louise
 Gratton, Rose
 Grayson, L. G.
 Grimes, W. J.
 Hamence, Charles Edward Thomas
 Hand, William Henry
 Hawkes, J. H. M.
 Hay, Ida Cornish
 Haycraft, H. R.
 Heffer, Richard Henderson
 Hills, William Thomas
 Hinde, H. E.
 Hitchcox, Richmond Thomas
 Howard, E. G.
 Hutchinson, Elizabeth
 Iliffe, James Drinkwater
 Ive, S. F.
 Jacobs, Jane
 James, Mary Ellen
 Korff, A. J.
 Kreusler, G. E.
 Lapidge, J. E.
 Laurie, E. C.
 Lawrance, F.
 Liston, Edith Mary Hannah

Luke, William
 Luxmoore, E. A.
 McBean, Annie
 McLean, Charles Frederick
 McLeod, Peter
 Marson, Francis Hone Lloyd
 Merrett, F. V.
 Moten, Thomas
 Moulden, J. C.
 Murphy, Dennis Daniel
 Murray, J. G.
 Murray, W.
 Naylor, Deborah Ann
 Nichols, H. F.
 Olifent, H.
 Owen, C. A.
 Paltridge, T. C.
 Part, T. G.
 Pearson, W. G.
 Pfennig, Henry Christian
 Richardson, Ethel Maud
 Richardson, Frank Joseph Webb
 Roberts, F. S.
 Roberts, F. W.
 Sabine, E.
 Sabine, E.
 Sanders, Florence Leslie
 Shaw, E. H.
 Sillifant, J.
 Simons, B.
 Stapledon, Edith Mary
 Strempel, Edward Otto
 Thompson, William Alfred
 Tuck, Elizabeth Frances Starkey
 Turner, W. J.
 Wade, Archibald
 Walshe, M. R.
 Webb, F. W.
 Whillas, C. B.
 Whinnerah, T. C.
 Whitford, Emma Matthews
 Wilson, W. H.
 Wright, H. B.

CHEMISTRY.

Anderson, Tressilian George
 Angell, Charles
 Anson, Walter
 Arthur, H.
 Bayly, H. G.
 Beare, W. G. D.
 Benham, Constance Mary
 Blackwell, T. G.
 Bonnar, G. L.

Bow, W.
 Burgess, Thomas Martin
 Cairns, Andrew
 Carter, John
 Chapman, W. S.
 Charlick, H. W.
 Cudmore, Arthur Murray
 Dickins, S. G. O.
 Dixon, S.

Edmunds, V. H.
 Edwards, E. F.
 England, A. W.
 England, M. R.
 Frampton, N. P.
 Gardiner, J. K.
 Good, Joseph Ernest
 Grayson, L. G.
 Grimes, W. J.
 Gunson, John Bernard
 Hamilton, J. R.
 Haslam, J. A.
 Hayercraft, H. R.
 Heffer, Richard Henderson
 Heynemann, Wilhelmina Susannah
 Hillier
 Hinde, H. E.
 Howard, E. G.
 Howchin, Walter
 Iliffe, James Drinkwater
 Isbister, James Linklater Thompson
 Ive, S. F.
 James, W. J. A.
 Korff, A. J.
 Kewson, Henrietta Susannah
 Lapidge, J. E.
 Laurie, E. C.
 Lawrance, David Hermann
 Lawrence, F.
 Le Messurier, Thomas Abram
 Lewin, Miss
 Lindsay, David
 Lloyd, G.
 Lloyd, H.
 Lloyd, Martha Hessel
 Luxmoore, E. A.
 McInerney, Thomas
 Mackintosh, C.
 Mayfield, H. F.
 Merrett, F. V.
 Moorhouse, C. L.
 Morice, J. P.

Moulden, J. C.
 Moule, Edward Ernest
 Murray, W.
 Nichols, H. F.
 Noack, J. C.
 Olifent, H.
 Owen, C. A.
 Paltridge, T. C.
 Parsons, S.
 Part, T. G.
 Pearson, W. G.
 Phillipson, W.
 Pitcher, John Blood
 Radcliffe, Charles
 Roberts, F. S.
 Roberts, F. W.
 Rowe, Walter Tidd
 Sabine, E.
 Sabine, E.
 Sells, Edward Perronet
 Shaw, E. H.
 Sillifant, J.
 Simons, V.
 Simpson, Alfred Edward
 Smily, M.
 Sutton, R.
 Taylor, H. S.
 Towler, A. E.
 Tuck, Elizabeth Frances Starkey
 Turner, W. J.
 Wainwright, E.
 Wainwright, W.
 Walshe, W. R.
 Wauchope, A.
 Webb, F. W.
 Whillas, C. B.
 Wilson, R.
 Wilson, W. H.
 Wood, S.
 Worsnop, A. N.
 Wright, H. B.

ORGANIC CHEMISTRY.

Heynemann, Wilhelmina Susannah
 Hillier
 Iliffe, James Drinkwater

McInerney, Thomas
 Wylie, Alexander

PHYSIOLOGY.

Arthur, John Hollow
 Claxton, Elsie Mabel
 Coulter, John Francis
 Denny, Mary
 Doig, Peter Garibaldi
 Field, Martha Ann

Goodwin, Prudence Louise
 Gratton, Rose
 Hand, William Henry
 Hayward, Thomas Charles
 Heyne, Laura Olga Hedwig
 Hills, William Thomas

Hitchcox, Richmond Thomas
 Howchin, Stella
 Hutchinson, Elizabeth
 Jacobs, Jane
 James, Mary Ellen
 Luke, William
 McBean, Annie
 McLean, Charles Frederick
 Moten, Thomas
 Murphy, Dennis Daniel

Naylor, Deborah Ann
 Pfenig, Henry Christian
 Sanders, Florence Leslie
 Stapledon, Edith Mary
 Stow, Edith Mary
 Stempel, Edward Otto
 Thompson, William Alfred
 Tuck, Elizabeth Frances Starkey
 Wade, Archibald
 Whitford, Emma Matthews

PRACTICAL PHYSIOLOGY.

Gallagher, William Edward
 Heynemann, Wilhelmina Susannah
 Hillier

Iliffe, James Drinkwater
 Lloyd, Martha Hessel
 McInerney, Thomas

BIOLOGY.

Wyllie, Alexander

HISTOLOGY.

Hamilton, Alexander Archibald
 Hamilton, Thomas Kinley

Stewart, Robert

GEOLOGY.

Baily, L.
 Eaton, H.
 Hales, F. C.
 Hales, J.
 Howard, William
 Johnson, W. S.
 Le Messurier, Thomas Abram
 Lindsay, David

McInerney, John
 McInerney, Thomas
 Maegraith, A. E.
 Parsons, S.
 Roach, Bertie Smith
 Scott, J. S.
 Sutton, Richard
 Ward, W. C.

LIST OF STUDENTS WHO HAVE PASSED THE MATRICULATION
 EXAMINATION FROM SEPTEMBER, 1876, TO MARCH, 1887,
 (INCLUSIVE).

The names of those who have taken Degrees are not included in this list.

M.—March Matriculation Examination.
 D.—December Matriculation Examination.

Class.	Year & Month.	Class.	Year & Month
Acraman, Morley Alex- ander	2 1877, D.	Angel, Alfred Henry ...	3 1885, D.
Adams, Sophia Sarah ...	1 1882, M.	Anthony, John	2 1878, D.
Adamson, David Bever- idge	2 1877, D.	Ayliffe, Ethel Adelaide	3 1886, M.
Alexander, Elizabeth Jane	1 1884, M.	Bach, John Edmund ...	2 1881, D.
Allen, Eleanor Alice ...	1 1884, D.	Bagot, Sophie Rose ...	3 1885, D.
Allen, James Bernard ...	1 1886, D.	Baker, John Richard ...	1 1882, D.
Allworden von, Louis ...	2 1886, M.	Balthasar, Rudolph ...	2 1879, D.
Anderson, James	3 1884, M.	Barnes, Charles Henry ..	2 1885, D.
Anderson, Tressilian George	2 1884, D.	Basedow, Bernhard ...	2 1886, D.
Andrews, Henry Louis ...	2 1877, D.	Bayley, William Rey- nolds	2 1881, D.
Andrews, Walter Fred- erick	1 1882, D.	Beare, Charles Alston ...	2 1881, M.
		Beaumont, Charles Sault- marsh	2 1877, D.
		Belt, Francis Walter ...	1 1878, D.

	Class.	Year & Month.		Class.	Year & Month.
Benham, Loui ...	3	1885, D.	Cooper, Henry Kings-	1	1884, D.
Beninga, Carl Lantzius	1	1879, M.	bury	2	1884, D.
Bennett, Thomas Charles	2	1880, D.	Cornish, Ernest Harry...	2	1882, D.
Benny, Benjamin ...	3	1886, D.	Cotton, William Mitchell	2	1880, D.
Berry, George Augustus	2	1881, D.	Counsell, Frank Hedley	2	1880, D.
Bertouch von, Rudolph			Counsell, Walter Samuel	2	1879, D.
Paul Albrecht ...	2	1886, M.	Counter, Francis William	2	1882, D.
Bertram, Robert Matthew	1	1883, D.	Cox, Arthur Percival ...	3	1886, D.
{ Beyer, Franz Victor...	2	1884, D.	Cox, Charles Bagster ...	2	1879, M.
{ Beyer, Franz Victor...	1	1885, D.	Crase, Thomas Vivian..	2	1878, D.
Bishop, John Henry ...	2	1882, D.	Crompton, Henry Wood-		
Bloxam, Charles A'Court	3	1887, M.	house	2	1885, D.
Boase, Granville ...	3	1884, D.	Cross, Katie Isabel ...	1	1886, D.
Bollen, Frederick James	1	1876, Sept.	Cruickshank, Percival...	2	1886, D.
Bollen, Percival ...	3	1885, D.	Cruickshank, Robert ...	2	1880, M.
Bonnin, Alfred ...	3	1886, D.	Cudmore, Arthur Murray	2	1887, M.
Bonnin, William James	1	1884, D.	Currie, Thomas ...	1	1880, D.
Botten, Joseph ...	2	1880, D.			
Boucaut, Ray ...	3	1887, M.	Daniels, Marian Lucy ...	3	1885, D.
Bronner, Carl ...	3	1887, M.	Davenport, Cecil John...	1	1879, D.
Brown, Robert Home ...	2	1880, M.	Davies, Alfred Joseph...	2	1882, M.
Burgess, Alfred Pickford	2	1881, M.	Davies, Arthur Colin ...	3	1887, M.
Burnard, Richard			Denny, Mary Katherine	3	1885, D.
Thomas ...	1	1877, D.	Dickson, Walter Ferrier	3	1884, D.
Burton, Alfred ...	2	1881, D.	Doolette, Dorham Long-		
Butler, Frederick Stanley	2	1885, D.	ford	1	1886, D.
			Dougall, Jessie Brown...	3	1886, D.
Carlin, Ernest Herbert	3	1882, D.	Downer, Frank Hagger	3	1883, D.
Casely, William Arthur			Downer, Marion Lane ...	1	1883, D.
Linthorne ...	3	1883, D.	Drew, John ...	1	1886, D.
Castle, Robert Andrew			Driffield, George Carus...	1	1879, D.
Carr ...	2	1880, D.	Driffield, Vero Carus ...	2	1878, M.
{ Caterer, Herbert Auburn	2	1877, D.	Duence, Richard ...	1	1883, D.
{ Caterer, Herbert Auburn	2	1881, D.	Duncan, Andrew Wil-		
Cave, Ellen May ...	3	1886, D.	liam Bartlett ...	2	1879, D.
Cave, Lucy Grierson ...	3	1887, M.	Duncan, John ...	2	1881, M.
Cavenagh, James Gordon	3	1882, D.	Dunn, Eustace Andrew	3	1884, D.
Cavenagh, Wentworth			Durston, Sydney Bridle	3	1884, M.
Rowland ...	2	1885, D.			
Chapple, Frederick John	1	1887, M.	Edmunds, Arthur James	2	1881, M.
Charlick, Harry Walter	1	1886, D.	Ellershaw, Charlotte		
Chewings, Henry ...	1	1882, M.	Jane	3	1883, D.
Clark, Arthur Howard	1	1886, D.	Espie, James ...	2	1879, M.
Clark, Charles ...	1	1877, D.	Evan, Dudley Gwynne...	2	1880, D.
Cleave, John ...	3	1886, D.	Evan, Griffith Mostyn...	2	1880, M.
Cleland, Edward Erskine	3	1885, D.	Evan, Lawrence William	2	1881, D.
Clindening, Frederick					
Talbot Driffield ...	2	1878, M.	Fallon, James Patrick ..	2	1884, M.
Cock, Nicholas John ...	1	1881, D.	Farrow, Edmund ...	2	1881, D.
Collier, Mary ...	3	1884, D.	Field, Henry Newland...	2	1881, D.
Collison, Arthur Gore ...	2	1884, D.	Finlayson, John Harvey	2	1884, D.
Colton, Edwin Blacker	1	1876, Sept.	Finlayson, William		
Colton, Frank Septimus	1	1880, D.	Henry	1	1879, D.
Cook, Alfred Edward ...	2	1886, D.	Fletcher, Lancelot Kohry	3	1884, D.
Cook, Edith Agnes ...	1	1877, D.	Foster, Henry Edgar ...	3	1885, M.

	Class.	Year & Month
Fotheringham, George...	2	1877, D.
Fowler, Margaret Laura	1	1886, D.
Frewin, Thomas Hugh...	1	1887, M.
Fuller, Henry Ernest ...	2	1884, D.
Garrett, Viola ...	1	1883, M.
Gawler, George Douglas	2	1877, D.
{ Gething, William John	2	1878, D.
{ Gething, William John	2	1879, D.
Geyer, Ernest William...	1	1882, D.
Giles, Henry O'Halloran	3	1885, D.
Gillman, Benjamin Hill	1	1886, D.
Glover, Charles Richmond John ...	3	1886, D.
Good, Joseph Ernest ...	3	1887, M.
Goodhart, Albert Edward Deverell ...	3	1885, D.
Goodhart, William Woide ...	1	1879, D.
Graham, Lena Henrietta	3	1887, M.
Greer, George Andrew...	3	1885, M.
Gunson, John Bernard...	1	1886, D.
Gwynne, Illyd Gordon	3	1886, M.
Habich, Adolph Richard	3	1885, M.
Hamilton, Marion Walker ...	3	1886, M.
Hamilton, Mary Coulls	3	1885, D.
Hamp, John Chipp ...	2	1882, M.
Hamp, William Edward	3	1883, D.
Hargrave, Joshua Addison ...	3	1883, M.
Harwood, Alice Mary ...	1	1883, M.
Hay, Ethel Mary ...	3	1885, D.
Hay, Ida Cornish ...	1	1885, M.
Hayward, Charles Waterfield ...	1	1883, D.
Heggaton, Horace John	3	1884, D.
Heine, Augustus ...	1	1878, D.
Henning, Rudolph Harriot ...	3	1885, M.
Herbert, Charles Edward	2	1876, Sept.
Heuzenroeder, Edmund Moritz ...	2	1877, D.
Heuzenroeder, William Eberhard ...	1	1884, D.
Hill, Alfred William ...	1	1880, D.
Hill, Arthur Henry ...	2	1883, D.
Hill, Henry Richard ...	2	1882, D.
Hill, Ida ...	3	1887, M.
Hinson, Stanley ...	2	1880, M.
Hodgkinson, Horace Ernest ...	1	1883, D.
Höltje, August ...	1	1877, D.
Hopkins, Louisa Gulielma ...	3	1884, D.

	Class.	Year & Month
Hourigan, Richard ...	2	1887, M.
Howell, Horace ...	3	1886, M.
Howell, Willoughby Alexander Christmas..	3	1885, D.
Hunt, Henry William ...	2	1880, D.
Hutchinson, Orlando Bingham ...	1	1880, M.
Hutchison, William John	3	1882, D.
Hynes, Timothy Augustine ..	3	1883, D.
Iliffe, James Drinkwater	3	1885, D.
James, Johnson...	2	1876, Sept.
Jefferis, James Eddington ...	2	1876, Sept.
Jeffrey, Florence ...	2	1883, D.
Johns, Charles ...	2	1878, D.
Joyner, Frederick Allen	2	1880, D.
{ Joyce, Alfred Fleming	3	1882, D.
{ Joyce, Alfred Fleming	1	1885, M.
Joyce, Mary Amelia ...	1	1884, D.
Kay, Frederick Walter	1	1887, M.
Kelly, Florence ...	2	1884, D.
Kelly, Heber Corlett ...	2	1878, D.
Kelly, Reginald Chalmer	3	1886, D.
Knight, Mary Adela McCulloch ...	1	1882, D.
Langsford, William Alfred ...	2	1876, Sept.
Lathlean, Fletcher ...	2	1887, M.
Lathlean, Richard Hedley ...	2	1876, Sept.
Laughton, Robert Watson ...	1	1885, D.
Lawrance, David Hermann ...	3	1886, D.
Laycock, William ...	1	1880, D.
Leader, Thomas Mortlock ...	1	1879, D.
Lehmann, August ...	1	1879, M.
Leighton, John Joseph...	3	1886, D.
Leitch, William Angus...	2	1885, D.
Lindsay, Arthur Reginald Feydel ...	2	1882, M.
Linke, Friedrich Wilhelm ...	1	1882, D.
Liston, Edith Mary Hannah ...	2	1885, D.
Lloyd, Henry Sanderson	2	1877, D.
Lloyd, Joseph Dawkins	2	1878, D.
Lloyd, Martha Hessell...	1	1886, D.
Longson, George Darling	2	1883, M.

Class Year & Month.

} Longson, Henry Abraham ...	...	2	1881, D.
	Longson, Henry Abraham ...	...	1 1882, D.
Mack, Albert Hessel ...	...	2	1878, D.
McCoy, Francis Sander-son ...	...	2	1879, D.
McDougall, James Gilbert ...	...	1	1886, D.
McNeil, Andrew ...	...	2	1881, D.
Magraith, Alfred Edward	...	1	1885, D.
Manning, Arabella Aldersey ...	...	3	1886, D.
Mantell, Walter Wood-roffe ...	...	1	1878, M.
Martin, Susan Frances...	...	2	1884, M.
May, Guy Morphett ...	...	2	1880, D.
Mead, Cecil Silas ...	...	2	1881, D.
{ Mead, Gertrude Ella...	...	2	1884, D.
{ Mead, Gertrude Ella...	...	1	1885, M.
Mead, Lilian Staple ...	...	1	1884, M.
Meyrick, Morgan ...	...	1	1882, M.
Michell, George Francis	...	2	1881, M.
Millard, Annie Eliza ...	...	3	1885, D.
Milne, James ...	...	1	1877, D.
Mitchell, Samuel James	...	3	1885, D.
Mitton, Victoria Alice...	...	3	1886, D.
Monk, Aquila ...	...	1	1878, D.
Moore, William Alfred ..	...	3	1885, D.
Morcombe, Thomas Yel-land ...	...	2	1878, M.
Moule, Edward Ernest...	...	2	1884, D.
Muirhead, John Bredesholm ...	...	2	1879, D.
Neale, William Lewis ...	...	1	1877, D.
Newman, George Gough	...	2	1878, D.
Nicholls, William Percival ...	...	2	1884, D.
Niesche, Frederick William ...	...	2	1876, Sept.
Nootnagel, Albert Hermann ...	...	2	1880, D.
Norman, Arthur Edward	...	1	1878, M.
Norman, William ...	...	1	1879, M.
Oldham, Ernest William	...	2	1879, M.
Oldham, Harry Ross ...	...	2	1882, D.
Oldham, Reginald Vautin ...	...	2	1880, D.
O'Halloran, Thomas Shildham ...	...	2	1881, D.

Class. Year & Month.

Paech, Johann Friedrich Wilhelm ...	...	2	1881, D.
Paltridge, William Hodgson ...	...	2	1886, D.
Parker, Ralph Frederick	...	3	1883, D.
Parsons, Stephen ...	...	2	1877, D.
Pearce, Arthur George...	...	2	1877, D.
Piper, Arthur William...	...	1	1880, D.
Plumstead, Arthur William Henry ...	...	3	1885, M.
Poole, Elsie Allen ...	...	3	1885, D.
Powell, Henry Arthur ...	...	3	1884, D.
Praagst, Lionel Francis	...	2	1880, D.
Price, Arthur Jennings...	...	3	1886, M.
Prior, Samuel Henry ...	...	3	1883, D.
Püttmann, Franziska Helena Marie ...	...	2	1884, D.
Renner, James Davie ...	...	2	1878, D.
Rigby, Ada ...	...	3	1884, M.
Rischbieth, Henry Wills	...	3	1886, D.
Robertson, James Robert	...	3	1882, D.
{ Robin, Arthur Falconer	...	3	1884, M.
{ Robin, Arthur Falconer	...	1	1885, M.
Robin, Septimus Sydney	...	2	1884, D.
Robinson, Robert Thomson ...	...	1	1883, D.
Rogers, Oliver Herbert...	...	2	1880, D.
Rollison, Thomas Arthur	...	3	1886, M.
Rounsevell, Horace Vernon ...	...	3	1883, D.
Rowe, Arthur Brisbane Stevens ...	...	2	1879, D.
Rowett, Joseph Charles	...	2	1882, D.
Rowley, Spencer Toler...	...	3	1884, M.
Sabine, Ernest Morris ...	...	3	1884, D.
Samuel-Davis, Joseph King ...	...	3	1883, D.
Sandover, Alfred ...	...	1	1881, D.
Sanderson, Francis Villiers ...	...	2	1879, D.
Scammell, Francis George...	...	2	1882, M.
Srymgour, Bernard Vincent ...	...	2	1880, D.
Seabrook, Leonard Llewellyn ...	...	2	1883, D.
Selby, Charles ...	...	2	1877, D.
Sells, Caroline Ellen ...	...	2	1883, D.
Severn, Claud ...	...	3	1886, M.
Shanahan, Patrick Francis ...	...	3	1887, M.
Shapter, William Thomas	...	2	1883, M.

	Class, Year & Month	Class, Year & Month.
Shepherd, Arthur Edmund ...	3 1885, D.	
Shepherd, Florence Nightingale ...	3 1887, M	
Shepley, Harry ...	3 1882, D.	
Shorney, Mabel ...	2 1887, M.	
Shuttleworth, Henry Howard ...	2 1877, D.	
Sibley, Nicholls Joseph ...	2 1881, D.	
Simpson, Alfred Edward ...	1 1885, D.	
Smith, Erlistoun Barr ...	2 1887, M.	
Smyth, Robert ...	3 1882, D.	
Snell, John Henry ...	1 1882, D.	
Solomon, Susan Selina ...	2 1884, D.	
Stapleton, Frank Lawrence ...	2 1881, D.	
Stephens, Albert Edward ...	3 1886, D.	
Stewart, Arthur ...	2 1885, M.	
Stockdale, William John ...	3 1884, D.	
Stow, Ernest Alfred ...	2 1881, D.	
Stow, Reginald Marshall ...	2 1879, D.	
Stow, Francis Leslie ...	3 1885, D.	
Swan, Alfred Mildred ...	3 1885, M.	
Swan, John Gilmore ...	2 1886, D.	
Swan, William Robert ...	3 1883, D.	
Tassie, William ...	3 1887, M.	
Teichelmann, Ebenezer ...	1 1877, D.	
Tennant, John ...	2 1881, M.	
Thiele, Max Hermann ...	2 1883, M.	
Thomas, Evan Kyffin ...	2 1885, M.	
Threlfall, Arthur Creswell ...	2 1879, M.	
Tilly, Arthur Lindsey ...	3 1885, D.	
Tomkinson, Henry Palmerston ...	2 1880, D.	
Torr, William George ...	1 1877, D.	
Trehy, Annie Louise Virginia ...	2 1886, D.	
Treleaven, Nicholas John Cole ...	2 1885, D.	
Treuer, Percy Conradin ...	2 1881, D.	
Tuckwell, Charles James ...	3 1886, D.	
Turner, Sydney Morris ...	2 1877, M.	
Tuxford, Albert Joseph ...	3 1883, D.	
Uffindell, Henry Walter ...	2 1879, M.	
Valentine, Harry ...	2 1887, M.	
Valentine, Charles Franklyn ...	2 1879, D.	
{ Verco, William Alfred ...	2 1885, D.	
{ Verco, William Alfred ...	2 1886, M.	
Walker, Jeannie Miller Campbell ...	2 1885, D.	
{ Warren, Frederick William ...	3 1882, D.	
{ Warren, Frederick William ...	2 1883, D.	
Warren, John Campbell ...	2 1883, D.	
Warren, Thomas Hogarth ...	1 1884, D.	
Welbourn, Albert Edward ...	2 1878, D.	
Wells, Alfred James ...	2 1876, Sept	
West, William Arthur ...	2 1884, M.	
Wheatly, Frederick William ...	1 1887, M.	
Whitby, Percy Edward Robert ...	3 1885, M.	
White, Arthur Graham ...	3 1885, M.	
White, John ...	2 1878, D.	
Wigley, Harry Vandeleur ...	3 1884, D.	
Wilkinson, Alfred ...	2 1881, M.	
Wilkinson, Frank Merrett ...	3 1886, D.	
Williams, Frances Elizabeth ...	1 1880, D.	
Williams, Llewellyn Andrew ...	2 1877, M.	
Wilson, Algernon Theodore King ...	2 1880, D.	
Wilson, Charles Stanley ...	1 1880, M.	
Wood, Stanley Neville ...	2 1885, D.	
Woods, Julian Edmund ...	2 1880, M.	
Wooldridge, William Phillips ...	3 1884, D.	
Wright, Charles Joseph Harvey ...	2 1881, M.	
Wright, Charles Theodore ...	2 1884, D.	
Wright, George Edward Henry ...	3 1883, D.	
Wyatt, Frank Addison ...	3 1886, D.	
Young, Walter James ...	1 1886, D.	

LIST OF STUDENTS WHO HAVE PASSED THE SENIOR PUBLIC EXAMINATION FROM NOVEMBER, 1887.

Class.	Year & Month.	Class.	Year & Month.
Adams, Charles Frances	3 1889, D.	Conigrave, Berkley	
Adamson, Albert Stanley	3 1888, D.	Fairfax	3 1887, D.
Adamson, Ross Fifeshire	3 1887, D.	Corbin, Cecil	3 1888, D.
Aldersey, Elizabeth Lee	3 1889, D.	Corbin, Hugh Burton ...	3 1888, D.
Allen, Robert Harry ...	3 1889, D.	Cross, Ethel Bessie ...	1 1889, D.
Anderson, William		Cruickshank, Constance	
Munro	3 1889, D.	May	3 1888, D.
Angel, Walter	2 1887, D.	Cotton, Edward Wither-	
Austin, Matilda Bea-		age	3 1887, D.
trice	2 1888, D.	Cottrell, Isabel Roberta	3 1887, D.
Ayers, Frederick Gordon	1 1889, D.	Cottrell, Walter Pearce	2 1887, D.
Bailey, Ernest Thomas	3 1889, D.	Cox, Katherine Haydon	3 1887, D.
Bathurst, Henry Christie	3 1887, D.	Cruickshank, Lilian Alice	3 1887, D.
Beare, Edwin Arthur ...	3 1888, D.	Dempster, William Ed-	
Beck, Edward Dighton ...	2 1889, D.	ward	3 1887, D.
Bell, Florence Elsie ...	2 1889, D.	Eimer, Emmie Clara	
Benham, Constance		Georgina	2 1887, D.
Mary	3 1888, D.	Eimer, Herman	2 1888, D.
Benham, Edward War-		Evans, Arthur Ernest	
ner	3 1888, D.	Herbert	2 1888, D.
Benham, Ellen Ida ...	2 1888, D.	Fisher, Ella Constance	3 1889, D.
Birks, Elsie Ellen ...	3 1889, D.	Fox, John Henry	3 1889, M.
Birks, Raymond	3 1888, D.	Fowler, David	3 1887, D.
Blackburn, Charles		Gibbes, Alexander Ed-	
Bickerton	1 1889, D.	ward	3 1887, D.
Blackburn, Thomas		Gillman, William Hol-	
Wordsworth Gavin ...	2 1889, D.	land	2 1889, D.
Blackwell, Flora Louisa	3 1889, D.	Gunson, William Joseph	3 1889, M.
Bonnin, Francis Josiah	2 1888, D.	Goode, Arthur	3 1887, D.
Bonnin, James Atkinson	2 1889, D.	Gray, Jane Lamont ...	3 1887, D.
Bosch, Anna Josephine	2 1889, D.	Hague, Percy	3 1888, D.
Boucaut, James Penn ...	3 1889, D.	Hamer, Ethel M.	3 1889, D.
Boundy, Frank Palmer	2 1889, D.	Hamilton, Albert Edwin	3 1888, D.
Brown, James Watson	1 1889, D.	Hannam, Sarah Amelia	2 1889, D.
Burnett, Maude Eliza-		Hardy, Inez Mary	2 1889, D.
beth	2 1887, D.	Haslam Ernest Bailey ...	3 1887, D.
Butler, Wilfred Horace	2 1889, D.	Haslam, Joseph Auburn	3 1887, D.
Campbell, Richard		Hayercraft, Edith Florence	3 1887, D.
Adderley	1 1889, D.	Henderson, Arthur	
Carroll, William	3 1887, D.	George Morphett	3 1888, D.
Casey, Jeremiah William	3 1887, D.	Heuzenroeder, Louise	
Caterer, Clarence Phillips	3 1889, D.	Helène	2 1889, D.
Cavenagh, Wentworth		Heyne, Agnes Marie	
Roland	1 1887, D.	Johanna	1 1887, D.
Chapple, Edith	3 1889, D.	Reyne, Laura Olga Hed-	
Clark, Albert Edward ...	3 1887, D.	wig	2 1888, D.
Claxton, Elsie Mabel ...	1 1888, D.		
Cole, Stephen Baldwin			
Sarmon	3 1889, M.		

	Class.	Year & Month.
Hill, Herbert Edward ...	3	1888, D.
Hone, Gilbert Bertram ...	3	1887, D.
Howchin, Stella ...	1	1888, D.
Hunter, George McIntyre ...	3	1889, D.
Irwin, Henry Offley ...	3	1888, D.
Isbister, James Linklater Thomson ...	2	1887, D.
Jones, Thomas Henry ...	3	1889, D.
Joyner, Alfred Ernest ...	3	1887, D.
Joyner, Frank Reeve ...	3	1889, D.
Jude, Frederick John ...	3	1889, D.
Kelsey, Rowland Hareus	3	1888, D.
Kennedy, Francis Thomas ...	3	1889, D.
King, William Frank ...	3	1889, D.
Kirby, Mary Maude ...	3	1887, D.
Lambert, Ada Mary ...	3	1889, D.
Lang, William Alfred Westall ...	3	1888, D.
Laurie, Ebenezer Curtis	3	1888, D.
Loessel, Rhea Marie ...	3	1888, D.
Lovely, William Harvey Chapman ...	3	1889, D.
McCarthy, Walter James ...	3	1887, D.
McEwin, George ...	3	1889, D.
McKenzie, Margaret Janet ...	3	1888, D.
McLachlan, Alexander John ...	3	1889, D.
McNamara, James Henry	3	1887, D.
McNamara, Percival Laurence ...	3	1889, D.
Maley, Lily ...	3	1888, D.
Marlow, Alfred Cleveland ...	2	1888, D.
Mellor, Edward Albert Dawson ...	3	1887, D.
Miley, Reginald Horace	3	1888, D.
Miller, Florence ...	3	1887, D.
Mitton, Ernest Gladstone ...	2	1889, D.
Moroney, Joseph John ...	3	1887, D.
Muecke, Dora ...	3	1888, D.
Muller, Charlotte Mary	3	1888, D.

	Class.	Year & Month
Newman, Edgar Harrold	2	1889, D.
Newman, Olive Gertrude	3	1889, D.
Nicholls, Leslie Herbert	2	1889, D.
Oldham, Alfred Mulville	3	1887, D.
Parsons, Herbert Angas	3	1888, D.
Penny, Clifton Raymond	3	1889, D.
Penny, Evelyn Emma ...	3	1887, D.
Pike, Florence May ...	3	1889, D.
Pitt, Ada Gertrude ...	3	1889, D.
Plummer, Violet May ...	1	1889, D.
Poole, Thomas Slaney ...	1	1889, D.
Richards, Joseph Spencer	3	1887, D.
Richardson, Ethel Maude	3	1889, D.
Russell, Alfred Edward James ...	3	1889, M.
Salom, Edward Jacob ...	3	1889, D.
Sanders, William ...	3	1887, D.
Sangster, John Ikin ...	3	1888, D.
Sewell, Frank ...	3	1889, D.
Shorney, Ellen Gertrude	3	1888, D.
Smith, Julian Augustus Roman ...	1	1888, D.
Spehr, Carl Louis ...	2	1887, D.
Steele, William ...	2	1888, D.
Stockdale, Annie Rosina	2	1887, D.
Stow, Edith Mary ...	3	1887, D.
Taylor, Harry Samuel ...	3	1888, D.
Thomas, Isabel Dora ...	3	1888, D.
Townsend, Alice Annie	3	1888, D.
Trevener, Mabel Mary	3	1889, D.
Trüdingen, Anna ...	2	1889, D.
Trüdingen, Walter ...	1	1888, D.
Wadey, Walter Henry	3	1888, D.
Weinrich, Joseph Hermann ...	2	1887, D.
Weld, Mary Eleanor ...	3	1887, D.
Whittell, Anna Maria Prince ...	3	1888, D.
Williams, Eva Roubel	1	1889, D.
Wilson, Isabel Mathieson	1	1889, D.
Wilson, William Reid ...	3	1887, D.
Winnall, John Edward Hyde ...	3	1888, D.
Zowe, Agnes Adeline ...	2	1889, D.

STATUTES.

CHAPTER I.—OF THE CHANCELLOR AND VICE-CHANCELLOR.

1. The Chancellor shall hold office until the ninth day of November in the fifth year from the date of his election.
 2. The Vice-Chancellor shall hold office until the day preceding that on which he would have retired from the Council if he had not been Vice-Chancellor.
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CHAPTER II.—OF THE COUNCIL.

1. The Council shall meet for the dispatch of business at least once a month.
 2. The Chancellor or Vice-Chancellor shall have power to call a Special Meeting for the consideration and dispatch of business, which either may wish to submit to the Council.
 3. The Chancellor or Vice-Chancellor, or in their absence the Registrar shall convene a meeting of the Council upon the written requisition of four members, and such requisition shall set forth the objects for which the meeting is required to be convened. The meeting shall be held within fourteen days after the receipt of the requisition.
 4. The Council shall have power to make, amend, and repeal Standing Orders for the regulation of its proceedings.
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CHAPTER III.—OF THE SENATE.

1. The Senate shall meet at the University on the fourth Wednesday in the months of March, July, and November respectively; but if the Warden is of opinion that there is not sufficient business to bring before the Senate, he may direct notice to be issued that the meeting shall for that time lapse.
2. The Warden may at any time convene a meeting of the Senate.
3. Upon a requisition signed by twenty members of the Senate, setting forth the objects for which they desire the meeting to be convened, the Warden shall convene a Special Meeting to be held within not less

than seven nor more than fourteen days from the date of the receipt by him of such requisition.

4. The Senate shall have power from time to time to make, amend, and repeal Standing Orders for the regulation of its proceedings. Until amended or repealed the Standing Orders of the Senate adopted on the 2nd December, 1885, shall remain in force.

CHAPTER IV.—OF PROFESSORS AND LECTURERS.

1. There shall for the present be the following Professors, that is to say
 - a. The Hughes Professor of Classics and Comparative Philology and Literature.
 - b. The Hughes Professor of English Language and Literature and Mental and Moral Philosophy.
 - c. The Elder Professor of Pure and Applied Mathematics, who shall also give instruction in Physics.
 - d. The Elder Professor of Natural Science.
 - e. The Elder Professor of Anatomy, who shall also give instruction in Comparative Anatomy, shall be the Director of the Anatomical Museum, and shall prepare specimens of Anatomy, Pathology, and Microscopic Anatomy for the same.
 - f. The Angas Professor of Chemistry, who shall be the Director of the Chemical Laboratory, shall conduct classes in Practical Analysis, and shall, if required, give special instruction in the various methods employed in the detection of poisons and in the adulteration of foods and drugs. Nothing contained in these Statutes shall prevent the Angas Professor of Chemistry from accepting any public appointment, with the sanction of the Council.
 - g. The Professor of Music, whose term of office expires on the last day of December, 1889.*
2. There shall be such Lecturers as the Council shall from time to time appoint.
3. Each Professor and Lecturer shall hold office on such terms as have been or may be fixed by the Council at the time of making the appointment.
4. Whenever sickness or any other cause shall incapacitate any Professor or Lecturer from performing the duties of his office, the Council may appoint a substitute to act in his stead during such incapacity, and such substitute shall receive such proportion not exceeding one-half of the salary of the Professor or Lecturer so incapacitated as the Council shall direct.

* By a resolution of the Council, the Chair of Music has been continued.

5. The Council may at its discretion dismiss from his office or suspend for a time from performing the duties and receiving the salary thereof any Professor whose continuance in his office or in the performance of the duties thereof shall in the opinion of the Council be injurious to the progress of the students or to the interests of the University : Provided that no such dismissal shall have effect until confirmed by the Visitor.

6. No Professor shall sit in Parliament or become a member of any political association ; nor shall he (without the sanction of the Council) give private instruction or deliver lectures to persons not being students of the University.

7. The Professors and Lecturers shall take such part in the University Examinations as the Council shall direct, but no Professor or Lecturer shall be required to examine in any subject which it is not his duty to teach.

8. During Term, except on Sundays and public holidays, the whole time of the Professors shall be at the disposal of the Council for the purposes of the University.

CHAPTER V.—OF THE REGISTRAR.

1. There shall be a Registrar of the University, who shall perform such duties as the Council may from time to time appoint. The Registrar shall also be the Librarian of the University.

2. The Council may at any time appoint a deputy to act in the place of the Registrar for such period as they may think fit, and assign to him any of the duties of Registrar.

CHAPTER VI.—OF LEAVE OF ABSENCE.

1. The Council may at its discretion grant to any Professor or Lecturer, or any officer of the University, leave of absence for any time not exceeding one year, on such Professor or Lecturer or other officer providing a substitute, to be approved by the Council.

CHAPTER VII.—OF THE SEAL OF THE UNIVERSITY.

1. The Chancellor and Vice-Chancellor shall be the Custodians of the University Seal which shall be affixed to documents only at a meeting of the Council and by the direction thereof.

CHAPTER VIII.—OF TERMS.

1. The Academical Year shall be divided into three terms for all the Faculties, except Medicine.
2. The first term shall commence on the second Tuesday in March, and the third term shall terminate on the second Tuesday in December in each year.
3. The Council shall year by year fix the commencement of the second and third and the termination of the first and second terms, and there shall be two vacations of a fortnight each during the Academical Year.

CHAPTER IX.—OF MATRICULATION AND DEGREES.

1. Every person not being less than sixteen years of age who has complied with the conditions for admission to the course of study for a degree in the Faculty in which he proposes to become a student, and who in the presence of the Registrar or other duly appointed person signs his name in the University Roll Book to the following declaration shall thereby become a Matriculated Student of the University. The declaration shall be in the following form :

“I do solemnly promise that I will faithfully obey the Statutes and Regulations of the University of Adelaide so far as they may apply to me, and that I will submit respectfully to the constituted authorities of the said University, and I declare that I believe myself to have attained the full age of sixteen years.”

2. Students who shall have fulfilled all the conditions prescribed by the Statutes and Regulations for any Degree may be admitted to that Degree at a meeting of the Council and Senate, to be held at such time as the Council shall determine.

3. Any person who has been admitted to a Degree in any University recognized by the University of Adelaide, may be admitted *ad eundem gradum* in the University of Adelaide.

4. Every candidate for admission to a Degree in the University shall be presented by the Dean of his Faculty; but candidates may be admitted *in absentia* with the permission of the Council.

5. Persons who have completed the whole or part of their undergraduate course in any University or College of a University recognised by the University of Adelaide, may with the permission of the Council be admitted *ad eundem statum* in the University of Adelaide.

6. The following shall be the forms of Presentation for Admission to Degrees :

Form of Presentation for Students of the University of Adelaide.

Mr. Chancellor, Mr. Vice-Chancellor, and Members of the Council and Senate of the University of Adelaide.

I present to you _____ as a fit and proper person to be admitted to the Degree of _____. And I certify to you and to the whole University that he has fulfilled the conditions prescribed for admission to that Degree.

Form of Presentation for Graduates of other Universities.

Mr. Chancellor, Mr. Vice-Chancellor, and Members of the Council and Senate of the University of Adelaide.

I present to you _____ who has been admitted to the Degree of _____ in the University of _____ as a fit and proper person to be admitted to the rank and privileges of that degree in the University of Adelaide.

Form of Admission to any Degree.

By virtue of the authority committed to me, I admit you _____ to the rank and privileges of a _____ in the University of Adelaide.

Form of Admission to any Degree during the Absence of the Candidate.

By virtue of the authority committed to me, I admit in his absence from South Australia _____ to the rank and privileges of a _____ in the University of Adelaide.

CHAPTER X.—OF THE FACULTIES.

1. There shall be Faculties of Arts, Science, Law, and Medicine.
2. The Faculty of Law shall consist of the Chancellor and Vice-Chancellor, of all members of the Council who shall be Judges of the Supreme Court, of two other members of the Council, to be annually appointed by the Council, and of the Professors and Lecturers in Law.

Each of the other Faculties shall consist of the Chancellor and Vice-Chancellor, three other members of the Council, to be annually appointed by the Council, and of the Professors and Lecturers in the subjects of the Course of the Faculty.

3. Each Faculty shall advise the Council on all questions touching the studies, lectures, and examinations in the Course of the Faculty.

4. Each Faculty shall annually elect one of their number to be Dean of the Faculty.

5. The Dean of each Faculty shall perform such duties as shall from time to time be prescribed by the Council, and (amongst others) the following :—

a. He shall, at his own discretion, or on the written request of the Chancellor or Vice-Chancellor, or of two members of the Faculty, convene meetings of the Faculty.

b. He shall preside at all meetings of the Faculty at which he shall be present.

c. Subject to the control of the Faculty he shall exercise a general superintendence over its administrative business.

6. When the Dean is absent from a meeting, the Faculty shall elect a Chairman for that occasion.

7. The Board of Examiners in the subjects of the Course of each Faculty shall consist of the Professors and Lecturers in those subjects, together with such Examiners as may be appointed by the Council.

8. The appointment of examiners in Law in the subjects necessary for admission to the Bar shall be subject to approval by the Judges of the Supreme Court.

CHAPTER XI.—OF THE BOARD OF MUSICAL STUDIES.

1. There shall for the present be a Board of Musical Studies, consisting of the Chancellor and Vice-Chancellor; of three members of the Council, to be annually appointed by the Council, and of the Professors and Lecturers in the School of Music. The Council may also annually appoint other persons, not exceeding two, to be members of the Board.

2. The Board shall advise the Council upon all questions touching the studies, lectures, and examinations in Music.

3. The Board shall annually elect a Chairman.
4. The Chairman shall perform such duties as shall from time to time be prescribed by the Council and (amongst others) the following :—
 - He shall, at his own discretion, or upon the written request of the Chancellor or Vice-Chancellor, or of two members of the Board, convene meetings of the Board.
 - He shall preside at the meetings of the Board.
 - Subject to the control of the Board, he shall exercise a general control over its administrative business.
5. When the Chairman is absent from a meeting, the Board shall elect one of their number to preside.
6. The Council shall, when necessary, appoint a sufficient number of Examiners, who, together with the Professors and Lecturers of the School of Music, shall constitute the Board of Examiners in Music.

CHAPTER XII.—OF THE BOARD OF DISCIPLINE.

1. There shall be a Board of Discipline consisting of the Chancellor, the Vice-Chancellor, the Deans of the various Faculties, the Chairman of the Board of Musical Studies, and such Professors or Lecturers as may be appointed by the Council.
2. The Board shall annually elect a Chairman. When the Chairman is absent from a meeting, the Board shall elect a Chairman for that occasion.
3. The Chairman shall perform such duties as shall from time to time be prescribed by the Council, and (amongst others) the following :—
 - He shall at his own discretion, or upon the written request of the Chancellor or Vice-Chancellor, or of two members of the Board, convene meetings of the Board.
 - He shall preside at the meetings of the Board.
 - Subject to the control of the Board, he shall exercise a general control over the discipline of the University.
4. Subject to the approval of the Council the Board may make Rules for the conduct of students on the premises of the University.

5. It shall be the duty of the Board to enquire into any complaint against a student, and the Board shall have the power

- (a) To dismiss such complaint.
- (b) To admonish the Student complained against.
- (c) To inflict a fine on such Student not exceeding forty shillings.
- (d) To administer a reprimand either in private or in the presence of any Class attended by such Student.
- (e) To suspend such Student temporarily from attendance on any course of instruction in the University.
- (f) To exclude such Student from any place of recreation or study in the University for any time not extending beyond the current Academical Year.
- (g) To expel from the University such Student.

Every such decision of the Board shall be reported to the Council, who may reverse, vary, or confirm the same.

6. Any Professor or Lecturer may dismiss from his class any student whom he considers guilty of impropriety, but shall on the same day report his action and the ground of his complaint to the Chairman.

CHAPTER XIII.—OF THE “ANGAS ENGINEERING SCHOLARSHIP” AND THE “ANGAS ENGINEERING EXHIBITIONS.”

Of the Angas
Engineering
Scholarship.

1. The Scholarship shall be tenable for three years, and shall be of the annual value of £200.

2. Each Candidate for the Scholarship must be under twenty-eight years of age on the first day of the month in which he shall compete for it, and must have resided in South Australia for at least five years.

3. Candidates for the Scholarship must have graduated in Arts or Science at the University of Adelaide.

4. The Scholarship shall be competed for triennially, in the month of March ; but if on any competition the Examiners shall not consider any candidate worthy to receive it, the Scholarship shall for that year lapse, but shall be again competed for in the month of March next ensuing.

5. The examination shall be in the following subjects :

- (1) *Mathematics.*
- (2) *Physics.*
- (3) *Geology.*
- (4) *Chemistry.*
- (5) *Mechanical and Engineering Drawing.*

And in such other subjects as the Council shall from time to time direct.

Schedules defining the scope of the examination in the above subjects shall be drawn up by the Faculty of Science, subject to the approval of the Council, and shall be published in the University Calendar of each year.

6. Within such time after gaining the Scholarship as the Council shall in each case allow, the Scholar must proceed to the United Kingdom and there spend the whole of the time, during which the Scholarship is tenable, in articles to a Civil Engineer, or as a Student in a College or University there, or partly in articles to a Civil Engineer and partly as a Student in a College or University, such Civil Engineer, College, or University to be approved by the Council. Provided that any such Scholar may by special permission of the Council spend part of his time in study or practical training outside the United Kingdom.

7. Payment of the Scholarship, computed from the first day of April next succeeding the award thereof, shall be made quarterly, at the Office of the Agent-General in London, or at such other place or places as the Council shall from time to time direct, subject to the previous receipt of satisfactory evidence of good behaviour and continuous progress in Engineering Studies, according to the course proposed to be followed by the Scholar.

8. Whenever such evidence is not satisfactory, the Council may altogether withhold, or may suspend for such time as they may deem proper, payment of the whole or of such portion as they may think fit of any moneys due, or to accrue due, to the Scholar on account of the Scholarship, or may deprive him of his Scholarship.

9. On his returning to settle in South Australia within five years from the time of gaining the Scholarship, and in possession of such

Degree, Diploma, or Certificate as a Civil Engineer as the Council shall approve, and upon his writing to the approval of the Council a report of his proceedings and engineering work, the Scholar shall receive the further sum of £100 towards his travelling expenses.

10. Should any successful candidate not retain the Scholarship for the full period of three years, notice of the vacancy shall be published by the Council in the Adelaide daily papers; and an examination shall be held in the month of March next ensuing.

11. There shall also be three "Angas Engineering Exhibitions," of which one may be awarded in each year after 1888. Each Exhibition shall be of the annual value of £60, and tenable for three years, computed from the first day of March in the year in which it shall be awarded.

12. In March, 1888, the Honorable John Howard Angas shall be entitled to appoint one Exhibitioner, who may or may not be a student of the University.

13. In March in each year after 1888 one of the Angas Engineering Exhibitions shall be open for competition at a special examination in subjects prescribed one year previously by the Council; but the Exhibition will not be awarded unless the Examiners are satisfied that one of the candidates is worthy to receive it.

14. Each candidate must have passed the Senior Public Examination, or such other examination as the Council shall from time to time prescribe, and must have been not more than eighteen years of age on the first day of the month in which he shall compete for the Exhibition.

15. Each Exhibitioner must within one month after he has become such enrol himself as a matriculated student in Science, and must thenceforward prosecute with diligence his studies for the Degree of Bachelor of Science, and attend the lectures and pass the Examination proper to each year of the course for that Degree.

Failure by any Exhibitioner (including the appointee of the Honorable John Howard Angas, in case he shall not already be a student of the University) to enrol himself as a matriculated student in Science within one month after he has become an Exhibitioner, or to pass any one of the Examinations for the Degree of Bachelor of Science shall cause an absolute forfeiture of his Exhibition, unless such failure shall, in the opinion of the Council, have been caused by ill-health or other unavoidable cause.

16. Payment of the Exhibitions will be made quarterly out of the income (when received) of the money hereinafter mentioned; but payment need not be made to any Exhibitioner whose conduct as a student throughout the quarter has not been in every respect satisfactory to the

Council. Whenever any Exhibitioner's conduct, either in any particular quarter or during any longer period, has not been satisfactory, the Council may altogether withhold or may suspend or postpone for such time as they may deem proper payment of the whole or of such portion as they may deem fit of any moneys due or to accrue due to any Exhibitioner on account of his Exhibition, or may deprive him of his Exhibition.

17. Should any Exhibitioner not retain his Exhibition for three years the Council may, if they think proper, give notice of the vacancy, and that a special examination to fill it will be held at a specified date, and such Exhibition shall be open for competition at that examination in such subjects as the Council shall on each occasion prescribe. The Exhibition will not be awarded unless the examiners are satisfied that one of the candidates is worthy to receive it ; and, if awarded, shall (notwithstanding anything in these Statutes contained) be held only from the date of the award until the expiration of the three years during which it would have been held had the vacancy not occurred.

18. No Exhibitioner shall, save by permission of the Council, hold, concurrently with his Exhibition, any other Exhibition or any Scholarship.

19. Candidates for the Scholarship and Exhibitions shall give at least three calendar months' notice, in the prescribed form, of their intention to compete, and shall with their notices forward to the Registrar evidence satisfactory to the Council of having fulfilled the conditions stated in these Statutes, and each Candidate for the Scholarship shall with his notice forward to the Registrar an Examination Fee of £5 5s.

Notice of entry
and fee for
Scholarship
and Exhibi-
tion.

20. The Statutes contained in this Chapter shall come into operation on the receipt by the University from the Honorable John Howard Angas, his executors or administrators, of the sum of £4,000, which shall be invested in such a manner as to entitle the University to an annual grant, equal to five pounds per centum per annum thereon, under the Fifteenth Section of the Adelaide University Act. The income (including such grant) to be derived from that sum, or so much of such income as shall be sufficient, shall be applied in paying the said Exhibitions, the Angas Engineering Scholarship, and the sum of £100 mentioned in the ninth of the Statutes in this chapter, and so much of such income as in any year shall not be so applied, shall be at the disposal of the Council for the purposes of the University.

21. During the life of the said the Honorable John Howard Angas the Statutes contained in this chapter shall not be repealed or altered without his consent.

22. The Statutes touching the "Angas Engineering Scholarship" which were allowed and countersigned by the Governor on the thirteenth day of

January, 1880, and the thirteenth chapter (touching the same Scholarship) of the Statutes allowed and countersigned by the Governor on the eighteenth day of December, 1886, are hereby repealed : Provided that this repeal shall not affect :

- a. Anything which shall have been done or suffered before the Statutes contained in this chapter shall have come into operation under any of the Statutes repealed hereby ; or
- b. Any right or status acquired, duty imposed, or liability incurred by or under any Statute repealed hereby.

24. The following is the prescribed form of

NOTICE BY CANDIDATE OF INTENTION TO COMPETE FOR THE "ANGAS ENGINEERING SCHOLARSHIP."

I hereby give notice that it is my intention to present myself as a Candidate for the "Angas Engineering Scholarship" at the Special examination for it, which is to be held in the month of _____, 18____, and I send herewith the examination Fee of £5 5s., and the documentary evidence specified in the underwritten schedule.

Signature of Candidate
Address of Candidate.....

Dated this.....day of.....18____.

This is the Schedule referred to in the above-written notice :

- 1. Proof of date of my birth
- 2. Proof of residence for five years in South Australia
- 3. Proof of graduation in Arts or Science at the University of Adelaide
- 4. Proof of having passed to the satisfaction of the Council of the University the prescribed courses of special studies and practical training.....

Signature of Candidate

25. The following is the prescribed form of

NOTICE BY CANDIDATE OF INTENTION TO COMPETE FOR AN "ANGAS ENGINEERING EXHIBITION."

I hereby give notice that I intend to present myself as a Candidate for an "Angas Engineering Exhibition" at the Examination for it in the month of _____, 18____, and I send herewith the documentary evidence specified in the underwritten Schedule.

Signature of Candidate
Address of Candidate.....

Dated this.....day of.....18____.

This is the Schedule referred to in the above-written notice.

- 1. Proof of date of my birth
- Certificate that I have passed the requisite Examination.....

Signature of Candidate.....

Allowed the 18th January, 1888.

CHAPTER XIV.—OF THE JOHN HOWARD CLARK
SCHOLARSHIPS.

Whereas various persons have subscribed and have agreed to pay to the University of Adelaide a sum of money for the purpose of constituting a fund for founding the Scholarships hereinafter named : And the Council of the said University have agreed to invest that sum, when received by them, and to apply the income thereof, in the manner specified in these Statutes : And whereas it has been agreed that the word "income" shall include as well interest to accrue from investments of the said fund as grants to be received from the Government in respect thereof :

It is hereby provided that from and after the receipt by the said Council of the said sum :

1. There shall be two Scholarships, tenable for two years each, one of which shall be competed for in the month of April in each year by Matriculated Students of the University who shall, at the next preceding Ordinary or Supplementary Ordinary Examination, have completed the first year of their course for the Bachelor of Arts Degree. The Scholarships shall be called the "John Howard Clark" Scholarships.

2. Each Scholarship shall be competed for at a special examination in English Literature in subjects prescribed by the Council one year previously, but if on any competition the Examiners shall not consider any candidate worthy to receive the Scholarship it shall for that year lapse.

3. Only one Scholarship shall be awarded in any one year so long as there are only two Scholarships.

4. Each scholar shall pass the Ordinary Examinations proper to his year, and shall also pass in the month of April at the end of the first year of his Scholarship such examination in the subjects thereof as the Council shall from time to time prescribe. Those subjects shall be published by the Council twelve months before the examination.

5. Every such scholar shall be in all respects subject to the discipline and to the Statutes and Regulations for the time being of the University.

6. Each scholar shall receive one half of the annual income so long as that income does not exceed sixty pounds. Whenever the annual income shall exceed sixty pounds, each scholar shall receive thirty pounds per annum.

7. The Fund for founding the Scholarships shall be invested by the Council in such a manner as will entitle the Council to claim

from the Government an annual grant in respect thereof. Any surplus interest, and any sums accumulating from the non-awarding of the Scholarships, shall be considered part of the Fund and be invested in the like manner until there shall have accumulated a sum sufficient to found a third Scholarship, which shall be competed for and awarded at such times as the Council shall direct: Provided that no portion of the annual grant shall be so accumulated. All subsequent accumulations shall be applied at the discretion of the Council towards the carrying out of the general objects of the John Howard Clark Scholarships.

CHAPTER XV.—OF THE STOW PRIZES AND SCHOLAR.

Whereas a sum of Five Hundred Pounds has been subscribed with the intention of founding Prizes in memory of the late Randolph Isham Stow, sometime one of the Justices of Her Majesty's Supreme Court of this Province; and it has been agreed to pay that sum to the University for the purposes and considerations and upon the conditions mentioned in the following Statutes: It is hereby provided that from and after, and in consideration of, the receipt by the University of that sum:

1. There shall be annual prizes, to be called "The Stow Prizes," for which Undergraduates studying for the Degree of Bachelor of Laws, may compete at the Examinations in Laws in the third term in each academic year.

2. Each of the Stow Prizes shall consist of the sum of Fifteen Pounds, or (at the option of the prizeman) of books to be selected by him to the value of that sum.

3. The Board of Examiners in Laws shall annually report to the Council the names of the three Undergraduates in Laws who shall have been respectively the most successful at the First, Second, and Third Examinations in the third term of the year for the Degree of Bachelor of Laws; and Stow Prizes shall be awarded by the Council to such three Undergraduates, or to so many of them as the Board shall also report to be worthy to receive prizes.

4. Every Undergraduate in Laws, who at each of the First, Second, and Third Examinations passed by him shall win (whether in consecutive years or not) a Stow Prize, shall receive a gold medal, and in the certificate of his degree shall be styled the "Stow Scholar."

CHAPTER XVI.—OF THE COMMERCIAL TRAVELLERS'
ASSOCIATION SCHOLARSHIP.

Whereas a sum of One Hundred and Fifty Pounds has been paid to the University by the Commercial Travellers' Association (Incorporated) for the purpose of founding a Scholarship, it is hereby provided that

1. The said Scholarship shall be awarded by the said University to any matriculated student thereof, who being a son or daughter of a member of the said Association shall be nominated by the Committee of Management of the said Association, and such student so nominated shall hold such scholarship for one or more consecutive years, as the Committee of Management of the said Association shall from time to time declare; and it shall be lawful for the Committee of Management of the said Association from time to time, at the end of any academical year, to substitute another student for the holder of the said Scholarship for the time being, and such substitute shall thereupon have all the advantages connected with the holding of such Scholarship.

2. The holder of the said Scholarship shall have the following advantages, that is to say: he shall be exempt from payment of all University fees during such time as he shall hold the Scholarship up to and including the fees payable on taking the Degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Music; but in case any student shall cease to hold the Scholarship, such student shall not be exempt from payment of such fees after the time at which he shall cease to hold such Scholarship. And any holder of such Scholarship taking the Degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Music while holding such Scholarship shall be entitled to have the fee paid by him on matriculation or on entering for the Senior Public Examination returned to him.

3. Every such scholar shall be in all respects subject to the discipline and to the Statutes and Regulations for the time being of the said University.

4. Save by permission of the Council of the said University, no such scholar shall be entitled to exemption from University fees during more than nine consecutive Academic Terms, computed from the day next preceding the commencement of the Academic year in which, or in the vacation preceding which, he or she becomes a scholar.

CHAPTER XVII.—OF CONDUCT AT EXAMINATIONS.

1. If during any examination, any candidate use any book or notes, or give assistance to another candidate, or through culpable negligence allow any other candidate to copy from or otherwise use his papers, or accept assistance from any other candidate, or use any manuscript of any other candidate, he shall lose that examination, and shall be liable to such further punishment by exclusion from future examinations or otherwise as the Council shall determine.

2. Whenever any of the foregoing acts of misconduct shall be detected, or whenever any breach of good order or propriety shall be committed during any examination, any Examiner present may at once exclude the candidate so misbehaving from the Examination Room.

CHAPTER XVIII.—OF ACADEMIC DRESS.

1. At all lectures, examinations, and public ceremonials of the University, Graduates and Undergraduates must appear in academic dress.

2. The academic dress shall be :

For Undergraduates—A plain black stuff gown and trencher cap.

For all Graduates—A black trencher cap with black silk tassel ; and

For Bachelors and Masters of Arts, Bachelors and Doctors of Medicine, and Bachelors and Doctors of Laws—Gowns similar to those used at Oxford and Cambridge for the same Degrees ; and hoods, of the shape shown in a coloured drawing marked A, to which the Seal of the University has been affixed, and which is countersigned by the Registrar, of a black colour, and (save as to the edging and lining thereof) of such material as the wearer shall select.

The hoods for Bachelors of the several Faculties shall have on both the inner and the outer fold an edging of silk of one and a-half inches in width. The colour of the edging shall, for Bachelors of Arts, be white ; for Bachelors of Medicine, scarlet ; for Bachelors of Laws, the colour known as “ Napoleon blue ; ” and for Bachelors of Science, amber.

The hoods for Masters of Arts shall be lined throughout the inner fold with white silk, and have on the outer fold an edging of the same silk of one and a-half inches in width.

The hoods for Doctors of Medicine shall be lined throughout the inner fold with scarlet silk, and have on the outer fold an edging of the same silk of one and a-half inches in width.

The hoods for Doctors of Laws shall throughout the inner fold be lined with silk of the colour known as "Napoleon blue," and have on the outer fold an edging of the same silk of one and a-half inches in width.

3. Notwithstanding anything contained herein members of the Senate who have been admitted *ad eundem gradum* may at their option, wear the academic dress appropriate to the Degree in virtue of which they have been so admitted.

CHAPTER XIX.—SAVING CLAUSE AND REPEAL.

1. The Chancellor, Vice-Chancellor, Professors, Lecturers, Registrar, and other officers of the University at the time of the allowance, and countersignature by the Governor of these statutes shall have the same rank, precedence, and titles, and hold their offices by the same tenure, and upon, and subject to the same terms and conditions, and (save the Chancellor and Vice-Chancellor) receive the same salaries and emoluments, and be subject to dismissal from their offices and suspension for a time from performing the duties and receiving the salaries thereto as if these statutes had not been made.

2. From and after the allowance and countersignature by the Governor of these statutes there shall be repealed:—

The statutes allowed and countersigned by the Governor on each of the undermentioned days, viz:—

1. The 28th day of January, 1876.
2. The 7th day of November, 1881.
3. The 12th day of December, 1882.
4. The 16th day of September, 1885.

And the Regulations allowed and countersigned by the Governor on the 21st day of August, 1878.

Provided that—

I. This repeal shall not affect—

- a. Anything done or suffered before the allowance and countersignature by the Governor of these statutes under any statute or regulation repealed by these statutes; or
- b. Any right or status acquired, duty imposed, or liability incurred by or under any statute hereby repealed; or

c. The validity of any order or regulation made under any statute or regulation hereby repealed ; and

II. In particular, but without prejudice to the generality of the foregoing provisions, the repeal effected by these Statutes shall not alter the rank, precedence, titles, duties, conditions, restrictions, rights, salaries, or emoluments attached to the Chancellorship or Vice-Chancellorship or to any Professorship, Lectureship, Registrarship, or other office held by the present Chancellor or Vice-Chancellor, or by any existing Professor, Lecturer, Registrar, or other officer.

Allowed the 18th December, 1886.

PUBLIC EXAMINATIONS.

REGULATIONS.

- I. Junior and Senior Public Examinations will be held annually. No candidate will be admitted to either unless he shall have passed the Preliminary examination as hereafter specified, but this examination may be passed at any time.
 - II. Both male and female candidates shall be eligible for examination, and the Regulations shall be read accordingly.
 - III. One or more Boards of Examiners shall be annually appointed by the Council. Each Board shall elect its own Chairman, who shall be responsible for the management of the examination and for the correctness of the class-lists.
 - IV. All papers proposed to be set shall be approved by the Board of Examiners before being printed.
 - V. After each examination the Registrar shall be supplied by the Board with a list showing in what subjects each candidate has passed or failed, and such list shall be certified by the Chairman of the Board.
-

**PRELIMINARY EXAMINATION.
REGULATIONS.**

- I. Every candidate must satisfy the examiners in each of the following subjects :—
1. *Reading*, and Writing from dictation.
 2. *English Grammar*, including the analysis of sentences.
 3. *English Composition*.
 4. *Arithmetic*, the elements of, including vulgar and decimal fractions.
- II. The examination will begin on the second day of the third term.
- III. A fee of 10s. 6d. shall be paid by each candidate at the time of giving notice to attend. In no case will the fee be returned ; but if, not less than seven days before the examination, a candidate shall notify to the Registrar his intention to withdraw, the fee shall stand to his credit for a future examination.
- IV. On or before the 25th of August candidates must give notice of their intention to present themselves, and such notice shall be in the following form :—
- To the Registrar of the
University of Adelaide.
- I hereby give notice that I intend to present myself at the next Preliminary Examination.
- Name of Candidate in full.....
- Address
- Date of Birth
- Last Place of Education
- Signature of Candidate
- Date.....
- * V. The Council may in the month of December of any year direct that a Preliminary Examination shall be held in the following March. Candidates must on or before the 1st of February give notice in the prescribed form of their intention to present themselves, and must at the same time pay the prescribed fee.
- VI. A list of successful candidates arranged in alphabetical order, will be posted at the University.
- Allowed the 18th January, 1888.
- Allowed the 12th December, 1888.

DETAILS OF THE SUBJECTS FOR THE PRELIMINARY EXAMINATIONS TO BE HELD ON THE 11TH OF MARCH AND 9TH OF SEPTEMBER, 1890.

Every Candidate must satisfy the Examiners in each of the following subjects :—

1. **READING**, and **WRITING FROM DICTATION**.
2. **ENGLISH GRAMMAR**, including the Analysis of Sentences.
3. **ENGLISH COMPOSITION**.
4. **ARITHMETIC**, the Elements of, including Vulgar and Decimal Fractions.

JUNIOR PUBLIC EXAMINATION.

REGULATIONS.

- I. Candidates who have passed the Preliminary Examination will be admitted without limit of age ; but only such successful candidates as are under 16 years of age on the 1st day of November in the year in which the examination is held will be placed in the classified list.
- II. Every candidate shall be required to satisfy the examiners in three of the following subjects, but no candidate shall be examined in more than five :—
1. *English*—(a) Outlines of the History of England.
(b) Some standard work in English Literature.
(c) Outlines of Geography, including the elements of Physical Geography.

Candidates who satisfy the examiners in two of the above will *pass* in English ; but to obtain a *credit* they must satisfy the examiners in all three.

2. *Latin*.
3. *Greek*.
4. *French*.
5. *German*.

Only such candidates as satisfy the examiners in grammar and in easy composition can obtain a credit in any of the above four languages. In French and German it will also be necessary to satisfy the examiners in the translation into English of easy passages from some books not specified.

6. *Mathematics*.

The standard for a pass will be—the substance of Euclid, Books I. and II., with Exercises, and Algebra to Simple Equations. Questions will also be set in the substance of Euclid, Books III. and IV., with Exercises, and Algebra to Quadratic Equations (including Surds).

7. *Physical and Natural Science*—

- (a) Elementary Physics.
- (b) Elementary Chemistry.
- (c) Elementary Botany and Elementary Physiology.

Candidates must satisfy the examiners in one of these divisions, and no candidate shall be examined in more than two.

- III. Schedules fixing the special subjects of examination and defining as far as may be necessary the range of questions to be set shall be published not less than fifteen calendar months before the date of the examination to which they are intended to apply.
- IV. The examination shall begin on or about the last Monday in November.
- V. A fee of £1 ls. shall be paid by each candidate at the time of giving notice to attend. In no case will the fee be returned, but if the candidate shall have failed to pass the Preliminary examination, or if, having previously passed it, he shall notify to the Registrar, not less than seven days before the Junior Public Examination, his intention to withdraw, the fee shall stand to his credit for a future examination.
- VI. On or before the 31st of October, candidates must give notice of their intention to present themselves, and such notice shall be in the following form, and shall be accompanied by a certificate of birth, or, if this cannot be obtained, by other satisfactory evidence :—

To the Registrar of the
University of Adelaide.

I hereby give notice of my intention to present myself
at the next Junior Public Examination.

*I passed the Preliminary Examination held in.....

I intend to present myself in the following subjects :—

* * *

Name of Candidate in full.....

Address

Date of Birth

Last Place of Education

Signature of Candidate

Date.....

- VII. 1. Lists of successful candidates will be posted at the University.
2. The general list of successful candidates shall be arranged in three classes, in alphabetical order. The list shall state the last place of education from which each candidate comes, and shall also indicate in which subjects he has passed.
3. (a). Candidates who satisfy the examiners in four subjects and obtain credit in not less than two of the four, or who satisfy the examiners in three subjects and obtain credit in all of them, shall be placed in the First Class.

* Candidates who have not passed the Preliminary Examination will strike this out.

(b). Candidates who satisfy the examiners in four subjects and obtain credit in one of them, *or* who satisfy the examiners in three subjects and obtain credit in not less than two of them, shall be placed in the Second Class.

(c). All other candidates who are entitled to a position in the classified list shall be placed in the Third Class.

4. Special lists will also be issued for each subject : in these lists the names will be arranged in two divisions—the first in order of merit, and the second in alphabetical order.

VIII. Each successful candidate shall be entitled to a certificate signed by the Chairman of the Board of Examiners and countersigned by the Registrar, showing in what subjects the candidate passed and in what class he was placed on the result of the whole examination and in the separate subjects.

IX. On application to the Registrar, unsuccessful candidates shall be informed in what subjects they have failed.

Allowed the 17th November, 1886.

DETAILS OF THE SUBJECTS FOR THE JUNIOR PUBLIC EXAMINATION TO BE HELD IN NOVEMBER, 1890.

1. ENGLISH.

(a) Outlines of the History of England.

(b) English Literature.

Charles Lamb's Tales from Shakespeare, viz., The Tempest, Midsummer Night's Dream, As you like it, Merchant of Venice, King Lear, Macbeth, Twelfth Night, Romeo and Juliet, Hamlet, Othello.

(c) Outlines of Geography, especially the Geography of Australasia, including the elements of Physical Geography.

The following synopsis includes the various branches of the subject required :—

(a) Relation of continents and islands. Grouping of islands. Influence of the form of a coast line. Characteristic features of the various great masses of land.

(b) Details of the great mountain systems of the world. Nature and position of high plains. Low plains, their relations to geological structure, their position, distribution and characteristics. Different kinds of valleys.

(c) Ocean—Divisions, depth, density, temperature, and colour. Form and nature of the ocean floor. Movements of the ocean. Waves and currents.

(d) River systems of the world. Deltas. Extent and peculiarities of lakes.

Text Book for Physical Geography—Geikie's Elementary Lessons.

2. LATIN.*

Cicero—Pro Archiâ.

3. GREEK.*

Xenophon—Hiero (Macmillan).

4. FRENCH.*

A. Daudet—La belle Nivernaise (Whittaker).

5. GERMAN.*

German ballads from Uhland, Schiller, and Goethe, edited by Bielefeld (Whittaker).

6. MATHEMATICS.

Geometry—The substance of Euclid Books I. and II., with Exercises.*Algebra*—To Simple Equations.

† Questions will also be set in the substance of Euclid Books III. and IV., with Exercises, and in Algebra to Quadratic Equations (including Surds).

7. PHYSICAL AND NATURAL SCIENCE.

(a) *Elementary Physics*—

The Elementary Laws of Mechanics, Hydrostatics, Light, Heat, Sound, Electricity, and Magnetism.

Text Book—Everett's Elementary Text Book of Physics.

(b) *Elementary Chemistry*—

The elementary Chemistry of the acid-forming elements, based upon Remsen's elements of Chemistry (a text book for beginners), pages 1-154.

(c) *Elementary Botany and Physiology*—*Botany.* The questions will be confined to the general structure of the flowering plant, with especial reference to the following illustrative plants:—*Wall-flower, Castor-oil Tree, Pea, Gumtree, Sow-thistle, Snapdragon, Lily, and Wild-oat.*

Candidates will be required to describe in technical language the organs of fresh plants, and to fill up "Schedules." (See Oliver's Lessons in Elementary Botany, the text book recommended.)

Elementary Physiology.

Text Book—Foster's Primer of Physiology.

Candidates are recommended also to consult Huxley's Elementary Lessons on Physiology, and will be required to show a practical acquaintance with the position, appearance, and general structure of the principal organs of the body.

* In preparing for composition in Latin, Greek, French, and German candidates are recommended to pay special attention to the vocabulary and idioms of the prose work set for translation.

† Candidates for a pass need not attempt these.

SENIOR PUBLIC EXAMINATION.**REGULATIONS.**

- I. There shall be no limit of age for candidates at this examination, but they must have passed the Preliminary examination.
- II. Every candidate shall be required to satisfy the Examiners in at least three of the following subjects, of which one must be No. I. of Division A, and of the remaining two one must be selected from the other subjects of Division A, and one from the subjects of Division B.

DIVISION A.**1. English History and Literature.**

(a) History; a period will be prescribed to be studied in detail.

(b) Some standard work or works in English Literature.

2. Latin**3. Greek****4. French****5. German****6. Italian**

} Including, in each case, brief outlines of History.

No candidate shall receive credit in any of the subjects in Division A. unless he shall have satisfied the Examiners in Composition, nor in French or German unless he is able to translate into English at sight any ordinary piece of prose or poetry.

DIVISION B.**7. Pure Mathematics.**

The standard for a pass will be : Arithmetic, including the theory of the various processes ; the elements of Mensuration ; Algebra to Quadratic Equations, including Surds ; Euclid, the substance of Books I. to IV., with Exercises.

Questions will also be set in Algebra to the Binomial Theorem, for a positive integral exponent ; Euclid, the substance of Books I. to IV., VI., and propositions 1 to 21 of Book XI., with exercises ; Plane Trigonometry to Solution of Triangles, including Logarithms.

8. Applied Mathematics.

Elementary Statics, Dynamics, and Hydrostatics.

9. Chemistry, with the cognate portions of Experimental Physics.

- 10. *Experimental Physics.*
- 11. *Botany and Physiology.*
- 12. *Physical Geography and the Principles of Geology.*

- III. Persons who have passed the Preliminary Examination may be examined for certificates in any one or more of the subjects of the Senior Public Examination, without being required to take the Examination as a whole.
- IV. Schedules fixing the special subjects of examination, and defining as far as may be necessary the range of questions to be set, shall be published not less than fifteen calendar months before the date of the examination to which they are intended to apply.
- V. The examination shall begin on or about the last Monday in November.

A special examination will be held in March, at which only those candidates shall be allowed to present themselves who shall give satisfactory evidence of their intention to become Students in Law or Medicine.

The fee for this examination shall be £7 7s., and candidates must give two months' notice of their intention to present themselves.

- VI. A fee of £2 2s. for the entire examination in November, or 15s. for each separate subject, shall be paid by each candidate at the time of giving notice to attend. In no case will the fee be returned, but if the candidate shall have failed to pass the Preliminary Examination, or if, having previously passed the Preliminary Examination, he shall notify to the Registrar, not less than seven days before the Senior Public Examination, his intention to withdraw, the fee shall stand to his credit for a future examination.
- VII. On or before the 31st of October candidates must give notice of their intention to present themselves, and such notice shall be in the following form :—

To the Registrar of the University of Adelaide.

I hereby give notice of my intention to present myself at the Senior Public Examination. *I passed the Preliminary Examination held in.....

I intend to present myself in the following subjects :—

* * *

Name of Candidate in full.....

Address.....

Date of birth.....

Last place of Education.....

Signature of Candidate.....

Date.....

* Candidates who have not passed the Preliminary Examination will strike this out.

- VIII. 1. Lists of successful candidates will be posted at the University.
2. The general list of successful candidates shall be arranged in three classes in alphabetical order. The list shall state the last place of education from which each candidate comes, and shall also indicate in which subjects he has passed.
3. (a) Candidates who (1) satisfy the examiners in two subjects of Division A, in addition to English History and Literature, and also in Pure Mathematics and one other subject of Division B, and (2) obtain credit in at least two subjects, exclusive of English History and Literature, shall be placed in the First Class.
- (b) Candidates who (1) satisfy the examiners in three subjects in addition to English History and Literature, and (2) obtain credit in at least one of these three subjects, shall be placed in the Second Class.
- (c) All other candidates who pass the examination shall be placed in the Third Class.
4. Special lists will also be issued for each subject ; in these lists the names will be arranged in two divisions, the first in order of merit, and the second in alphabetical order.
- IX. Each successful candidate shall be entitled to a certificate signed by the Chairman of the Board of Examiners and countersigned by the Registrar, showing in what subjects the candidate passed, and in what class he was placed on the result of the whole examination and in the separate subjects.
- X. On application to the Registrar, unsuccessful candidates shall be informed in what subjects they have failed.

LOCAL EXAMINATIONS.

- I. The Junior and Senior Public Examinations, as well as the Preliminary Examination, may be held in other places than the City of Adelaide.
- II. Such local examinations shall be held only under the supervision of persons appointed by the Council.
- III. No such examination shall be held unless a sum sufficient to meet all expenses, including the Statutory Fees, be lodged with the Registrar on or before the 31st day of October.

DETAILS OF SUBJECTS FOR THE SENIOR PUBLIC EXAMINATION
TO BE HELD IN NOVEMBER, 1890, AND FOR THE SPECIAL
EXAMINATION IN MARCH, 1891.

DIVISION A.

1. ENGLISH HISTORY AND LITERATURE.

(a) *History of England*—The reign of George the Third.

Text Books—

Green's Short History of the English People, and
Payne's History of European Colonies, pages 146 to 214 in-
clusive.

(b) *English Literature*—Macaulay's Essays on Clive and Warren
Hastings.

2. LATIN.*

Horace—Odes, Books III. and IV.

Roman History—Macmillan's Primer.

3. GREEK.*

Demosthenes—The Olynthiacs, II. and III.

Greek History—Macmillan's Primer.

4. FRENCH.*

Lamartine—Jeanne d'Arc, Barrère (Whittaker).

La Fontaine—Select fables, edited by F. Gasc (Whittaker).

French History—Macmillan's Primer.

5. GERMAN.*

Schiller—Der Neffe als Onkel.

Schiller—Das Lied von der Glocke.

German History—Simes', from page 172 to the end (Macmillan).

6. ITALIAN.*

D'Azeglio—Ettore Fieramosca.

Italian History—W. Hunt (Macmillan).

DIVISION B.

7. PURE MATHEMATICS.

Arithmetic, including the theory of the various processes; the elements
of mensuration.

Algebra—To Quadratic Equations, including Surds.

† Questions will also be set in Algebra to the Binomial Theorem
for a positive integral exponent.

Geometry—The substance of Euclid, Books I., II., III., IV., with
Exercises.

† Questions will also be set in the substance of Euclid, Book
VI., and Propositions 1 to 21 of Book XI.; and in Plane Trigo-
nometry to Solution of Triangles, including Logarithms.

8. APPLIED MATHEMATICS.

Elementary Statics, Dynamics, and Hydrostatics.

* In preparing for Composition in Latin, Greek, French, German, and Italian candidates
are recommended to pay special attention to the vocabulary and idioms of the prose work set
for translation.

† Candidates for a pass need not attempt these.

. CHEMISTRY, WITH THE COGNATE PORTION OF EXPERIMENTAL PHYSICS.

Laws of Gases. Specific gravity and the modes of determining it.
Barometer. Thermometer.

Specific Heat. Latent Heat.

The elementary Chemistry of the more commonly occurring elements and their compounds, based upon Remsen's Elements of Chemistry (a text book for beginners).

N.B. An intelligent knowledge of the Chemical principles will be required as far as they are explained in the above named text book.

10. EXPERIMENTAL PHYSICS.

Including elements of Light, Heat, Sound, Electricity, and Magnetism
Text Book—Balfour Stewart's Lessons in Elementary Physics,
Lessons XIII. to XLVII., inclusive.

11. BOTANY AND PHYSIOLOGY.

Botany.—Questions will be confined to the general structure of the flowering plant, with especial reference to the following illustrative plants:—*Buttercup, wallflower, pea, wattle, gum-tree, aster, sow-thistle, snapdragon, castor-oil tree, orchid, lily, and wild-oat.*

The general character of the classes and sub-classes into which flowering plants are divided.

Candidates will be required to describe in technical language the organs of fresh plants.

Candidates will be required to fill up "schedules." (See Oliver's Lessons in Elementary Botany and Mueller's Botanic Teachings—the text-books recommended).

Physiology.

Text-book—Huxley's Elementary Lessons on Physiology.

Candidates will be required to show a practical acquaintance with the position, appearance, and structure of the most important tissues and organs, and may be called upon to perform some easy exercise in dissection.

12. PHYSICAL GEOGRAPHY AND THE PRINCIPLES OF GEOLOGY.

Physical Geography.

The following synopsis includes the various branches of the subject required:—

- (a) Relation of continents and islands. Grouping of islands
Influence of the form of a coast line. Characteristic features of the various great masses of land.
- (b) Details of the great mountain systems of the world. Nature and position of high plains. Low plains, their relations to geological structure, their position, distribution, and characteristics. Different kinds of valleys.
- (c) Ocean—Divisions, depth, density, temperature, and colour. Form and nature of the ocean floor. Movements of the ocean. Waves and currents.
- (d) Distribution of rain. Subterranean circulation of water. Springs, their origin, temperature, and mineral contents.

- (e) River systems of the world. Deltas. Extent and peculiarities of lakes
- (f) Snow line. Glaciers. Icebergs.
- (g) Distribution of winds in both hemispheres. Special local winds and their causes.
- (h) Phenomena of and causes that produce or modify climate.
- (i) Volcanic and earthquake phenomena.
- (j) The simple facts of the vertical and horizontal distribution of plants and animals on the land and in the sea; the influence of physical and climatic circumstances on the distribution of terrestrial life.

Text-book—Geikie's Elementary Lessons in Physical Geography.

Geology.

Questions will be confined to the undermentioned topics in the elements of physical geology :

Proofs of the origin of stratified rocks resulting from the degradation of the land produced by the action of rain, rivers, frosts, glaciers, icebergs, accumulations of organic debris, &c.

The transport of matter by rivers, the formation of the deltas, &c., and the general accumulations of great deposits of marine and freshwater strata.

The theory of the origin of salt lakes.

Proofs that large areas of the earth's surface are now being slowly elevated above or depressed beneath the sea. The relations of coral reefs and of earthquake and volcanic phenomena to this branch of the subject.

Explanation of common geological terms—as clay, sand, gravel, horizontal and inclined strata, anticlines and synclines, unconformability, dip, joint, fault.

The candidates will also be required to make sketches, and name unlabelled specimens of the commoner rocks of this country.

Text-book recommended—Tate's Students' Class Book of Physical Geology.

JUNIOR PUBLIC EXAMINATION.

FIXED TIME TABLE.

Commencing last Monday of November in each Year.

Hour.	Monday, Nov. 24.	Tuesday, Nov. 25.	Wednesday, Nov. 26.	Thursday, Nov. 27.	Friday, Nov. 28.
9-11	English Literature.	Geometry.	Physiology.	Physics.	Greek.
10-1			Botany.	Algebra.	
11.30-1.30	English History.				
2.30-4.30	Outlines of Geography.	Latin.	Chemistry.	French.	German.

SENIOR PUBLIC EXAMINATION.

FIXED TIME TABLE.

Commencing last Monday of November in each Year.

Hour.	Monday, Nov. 24.	Tuesday, Nov. 25.	Wednesday, Nov. 26.	Thursday, Nov. 27.	Friday, Nov. 28.	Monday, Dec. 1.
9-11	English Literature.	Pure Ma- thematics.	Physiology.		Pure Mathematics	Greek.
10-1			Botany.	Physics.		
11.30 } 1.30 }	English History.					
2-5	Physical Geography and Geology.	Latin.	Chemistry.	French.	German.	Applied Mathe- matics.

HIGHER PUBLIC EXAMINATION.

REGULATIONS.

- I. A Higher Public Examination will be held annually.
- II. Candidates must have attained the full age of eighteen years on the day on which the examination begins.
- III. Candidates may be examined in any one or more of the following subjects:
 1. *Latin.* Part I.
" Part II.
 2. *Greek.* Part I.
" Part II.
 3. *French.*
 4. *German.*
 5. *English Language and Literature.*
 6. *Pure Mathematics.* Part I.
" Part II.
 7. *Physics.* Part I.
" Part II.
 8. *Applied Mathematics.*
 9. *Logic.*
 10. *Inorganic Chemistry.*
 11. *Organic and Practical Chemistry.*
 12. *Elementary Biology and Physiology.*
 13. *Physiology.*
 14. *Botany.*
 15. *Geology.*
 16. *Theory and History of Education.*
- IV. Schedules defining the range of study shall be published in the month of January in each year. The date of the examination shall be fixed by the Council.
- V. Certificates shall be given showing the subjects in which the candidate has passed.
- VI. Candidates who produce certificates of having passed at this examination in the subjects required to complete the First and Second years of the course for the degree of Bachelor of Arts or Bachelor of Science respectively, shall be entitled to proceed to the Third Year's Course, and on completing the Third Year to receive the Degree.

VII. A fee of one guinea shall be paid for each subject in which a candidate presents himself for examination.

VIII. The following Form of Notice must be sent to the Registrar not less than twenty-one days before the date of the examination.

I, _____ hereby give notice of my intention to present myself at the next Higher Public Examination in the following subjects:

I declare that I was born on _____
I enclose herewith the prescribed fee of £ _____
(Signed)....., 189 .

Dated this _____ day of _____,
To the Registrar,
University of Adelaide.

Allowed: 18th of December, 1886.

SCHEDULES DRAWN UP UNDER No. IV. OF THE FOREGOING REGULATIONS.

1. LATIN. Part I. The same subjects as for the 1st Year B.A.
" Part II. " " 2nd Year B.A.
2. GREEK. Part I. " " 1st Year B.A.
" Part II. " " 2nd Year B.A.
3. FRENCH. The same subjects as prescribed for a pass (omitting History) for 3rd Year B.A.
4. GERMAN. The same subjects as prescribed for a pass (omitting History) for 3rd Year B.A.
5. ENGLISH LANGUAGE AND LITERATURE. The same subjects as for the 1st Year B.A.
6. PURE MATHEMATICS. Part I. The same subjects as for 1st Year B.A. and B.Sc.
PURE MATHEMATICS. Part II. The same subjects as for 2nd Year B.Sc.
7. PHYSICS. Part I. The same subjects as for 1st Year B.A. and B.Sc.
" Part II. " " 2nd Year B.Sc.
8. APPLIED MATHEMATICS. The same subjects as for 2nd Year B.A. (Elementary), and 2nd Year B.Sc.
9. LOGIC. The same subjects as for 2nd Year B.A.
10. INORGANIC CHEMISTRY. The same subjects as for 1st Year B.Sc.
11. ORGANIC AND PRACTICAL CHEMISTRY. The same subjects as for the 2nd Year B.Sc.
12. ELEMENTARY BIOLOGY AND PHYSIOLOGY. The same subjects as for 1st Year B.Sc.
13. PHYSIOLOGY. The same subjects as for 2nd Year B.Sc.
14. BOTANY. The same subjects as for 2nd Year B.Sc.
15. GEOLOGY. The same subjects as for 2nd Year B.Sc.
16. THEORY AND HISTORY OF EDUCATION.

The following will be the subjects of examination :—

1. The Elements of Logic and Psychology.
2. Locke : On Education (Pitt Press Edition).
Herbert Spencer : Education, Intellectual, Moral, and Physical.

3. Fitch : Lectures on Teaching.

4. The lives of Comenius, Pestalozzi, and Froebel.

Text-books recommended :

Jevons : Primer of Logic (Macmillan).

Sully : Teacher's Handbook of Psychology (Longman).

Comenius : by S. S. Laurie (Pitt Press).

Autobiography of Friderich Froebel (Sonnenschein).

Leitch : Practical Educationists (Maclehose).

Compayre's History of Pedagogy (Sonnenschein).

Students are recommended to consult the articles on Comenius, Pestalozzi, and Froebel in the Encyclopædia Britannica. If they read French they will find the Histoire de Pestalozzi, by R. de Guimps (Lausanne, Bridel) very useful.

OF THE DEGREE OF BACHELOR OF ARTS.

REGULATIONS.

- I. Students who in the Senior Public Examination pass in Latin, Greek, and Mathematics may be enrolled as Matriculated Students in Arts.
- II. Students who have not complied with the above conditions may, nevertheless, be enrolled as Matriculated Students on satisfying the Professors in the Faculty of Arts that they have sufficient knowledge to enable them to enter upon the First Year's Course.
- III. To obtain the Degree of Bachelor of Arts every candidate must, after matriculation, complete three academical years of study, and pass the Examination proper to each year as hereinafter specified.
- IV. At the First Examination every candidate shall be required to ^{First Year} satisfy the Examiners in each of the following subjects :—
1. *Latin.*
 2. *Greek.*
 3. *Elementary Pure Mathematics.*
 4. *Elementary Physics.*
 5. *English Language and Literature.*
- * Students who have passed the First Year's Examination in Arts, and who wish to enter for the First Year's Examination in Science will not be required to be re-examined in such subjects as are common to the two Examinations.
- V. At the Second Examination every candidate shall be required to ^{Second Year} satisfy the Examiners in each of the following subjects :—
1. *Latin.*
 2. *Greek.*
 3. *Elementary Applied Mathematics.*
 4. *Logic.*
- VI. At the Third Examination every candidate shall be required to ^{Third Year} satisfy the Examiners in three of the following subjects, or in two, one being in honours :—
1. *Classics and Ancient History.*
 2. *Mathematics.*
 3. *Mental and Moral Science.*
 4. *Modern Languages, Literature, and History.*
- VII. In any year candidates may be examined for honours in any one ^{Honours} or more subjects. Candidates for honours who do not attain the required standard may nevertheless be allowed a pass if in the opinion of the Examiner they shall have shown sufficient proficiency.

* Allowed 18th December, 1889.

VIII. Schedules defining the range of study shall be drawn up by the Faculty of Arts, subject to the approval of the Council, and shall be published in the month of January in each year. The dates of the Examinations shall be fixed by the Council.

IX. Any Professor may permit a student to substitute for any course of lectures properly belonging to his year an advanced course of lectures in the same subject.

X. Unless the Council shall have granted an exemption, candidates for examination in any subject on which lectures are given must present a certificate from the Professor or Lecturer giving such lectures of regular attendance thereat during the year.

Class Lists

XI. The names of candidates who pass with honours shall be arranged in three classes, in order of merit. The names of other successful candidates shall be arranged in three classes, in alphabetical order.

Fees

XII. The following Fees shall be paid in advance :—

	£	s.	d.
Fee for graduating students for each term's instruction ...	5	5	0
Fee for Degree of Bachelor of Arts	3	3	0
Fees for non graduating students in each term—			
First and Second Years, each sub' t	1	10	0
Third Year, each subject	2	2	0

XIII. The following form of Notice is prescribed :

Form of Notice to be sent to the Registrar by Undergraduates of their intention to present themselves for Examination.

I, _____ an Undergraduate of this University, hereby give notice that, for the purpose of completing the year of the course for the Degree of Bachelor of Arts, I intend to present myself at the Examination in the _____ Term of 189 , for examination in the undermentioned subjects, viz. :

1. _____ 4.
2. _____ 5.
3. _____

I send herewith the prescribed certificates of attendance at lectures.

Dated this _____ day of _____ (Signed)..... , 189 .
The Registrar,
University of Adelaide.

ADDENDUM.

The regulations concerning the Degree of Bachelor of Arts allowed on the 4th January, 1882, are hereby repealed, but students who shall have completed either the first or second year of their course on the 31st of March, 1887, shall have the option of continuing their course under such regulations.

Allowed : 18th December, 1886.

SCHEDULES DRAWN UP UNDER No. VIII. OF THE FOREGOING REGULATIONS.

DETAILS OF SUBJECTS FOR THE ORDINARY EXAMINATIONS FOR THE DEGREE OF B.A. IN NOVEMBER, 1890.

FIRST YEAR'S COURSE.

LATIN.

Pass.

Pliny—Letters, Book III.
Virgil—Æneid, Books I. and II.

Additional for Honours.

Cicero—Pro Sestio.
Ovid—Metamorphoses. Books XIII. and XIV.

Prose Composition for both Pass and Honours.

GREEK.

Pass.

Plato—Laches.
Homer—Odyssey. Book IX.

Additional for Honours.

Thucydides. Book IV.
Euripides. Medea.

Prose Composition for both Pass and Honours.

ELEMENTARY PURE MATHEMATICS.

Pass.

The Geometry of the straight line and circle; the Theory of Proportion and of similar Rectilinear Figures.
Elementary Solid Geometry.
The Elements of Algebra as far as the Binomial Theorem (inclusive).
The Elements of Trigonometry as far as the Solution of Triangles (inclusive).

Honours.

Algebra, Trigonometry, Elements of Statics, Dynamics, and Hydrostatics.

ELEMENTARY PHYSICS.

The first principles of Mechanics, Hydrostatics, Heat, Light, Sound, Electricity and Magnetism.

ENGLISH LANGUAGE AND LITERATURE.

Pass.

Morris—English accidence to end of Chapter XVIII.
Chaucer—The Knight's Tale.
Shakespeare—The Merchant of Venice.
Coleridge, S. T.—Poems.

Additional for Honours.

Sweet's Anglo-Saxon Primer.
Morris and Skeats' Specimens of Early English, Vol. II.
Macaulay's Essays, the Essays on Milton, Byron, Johnson, Leigh Hunt, Madame D'Arblay, and Addison.
Browning, Selections from Browning's Poems, 1st Series (Smith, Elder, and Co.)

SECOND YEAR'S COURSE.

LATIN.

Pass.

Cicero—Pro Sestio.
Ovid—Metamorphoses. Books XIII. and XIV.

Additional for Honours.

Cicero—Pro Roscio.
Horace—Epodes and Satires.

Prose Composition for both Pass and Honours.

GREEK.

Pass.

Thucydides—Book IV.
Euripides—Medea.

Additional for Honours.

Homer—Odyssey. Books XXII., XXIII., and XXIV.
Plato—Republic. Books I. and II.

Prose Composition for both Pass and Honours.

ELEMENTARY APPLIED MATHEMATICS.

Pass.

Elements of Statics, Dynamics, and Hydrostatics.

Honours.

Elementary Analytical Conics, Elementary Differential and Integral Calculus.
Elementary Spherical Trigonometry and Astronomy.

Text books recommended :

Smith's Conic Sections.
Todhunter's Differential Calculus.
Todhunter's Integral Calculus.
McLelland and Preston's Spherical Trigonometry, vol. I.
Godfray's Astronomy.

NOTE—No regular course of instruction will be given in Spherical Trigonometry and Astronomy, but a few lectures will be given in the Third Term on the more difficult problems in these subjects.

LOGIC.

Pass.

Fowler, Deductive Logic.
Fowler, Inductive Logic (Clarendon Press).
Thomson. Laws of Thought. Introduction and Parts I., II., and III.

Additional for Honours.

Baine—Deductive Logic.
Baine—Inductive Logic.
Bacon—Advancement of Learning.

THIRD YEAR'S COURSE.

CLASSICS AND ANCIENT HISTORY.

Latin.

Pass.

Cicero—Pro Roscio.
Horace—Epodes and Satires.

Additional for Honours.

Horace—Epistles and Ars Poetica.

Virgil—Æneid. Book VI.

Terence—Phormio.

Prose Composition for both Pass and Honours.

Greek.

Pass.

Homer—Odyssey. Books XXII., XXIII., and XXIV.

Plato—Republic. Books I. and II.

Additional for Honours.

Plato—Republic. Books III., IV. and V.

Æschylus—Agamemnon.

Lectures will be delivered on as much of this course as time permits.

Prose Composition for both Pass and Honours.

Ancient History.

Candidates will be expected to have a general acquaintance with the history of Greece and Rome.

MATHEMATICS.

Pass.

Elementary Analytical Conics, Elementary Differential and Integral Calculus.

Honours.

Analytical Statics, Dynamics of a Particle, Hydromechanics, and Solid Geometry.

MENTAL AND MORAL SCIENCE.

Pass.

Schwegler's History of Philosophy (from Descartes to Hegel)

Hamilton. Lectures on Metaphysics. Vol. I.

Dugald Stewart's Outlines of Moral Philosophy.

Butler's Sermons and Essay on Virtue.

Additional for Honours.

Watson. Selections from Kant, pages 1 to 218 (Maclehose).

Sidgwick's History of Ethics.

Aristotle's Nicomachean Ethics. Book. V.

Mill's Utilitarianism.

MODERN LANGUAGES, LITERATURE, AND HISTORY.

Candidates must satisfy the Examiners in two of the three following branches:—

1. English Language, Literature, and History.

2. French Language, Literature, and History.

3. German Language, Literature, and History.

English Language and Literature.

Pass.

Johnson's Lives of Milton, Pope, and Addison.

Milton's Paradise Lost, Books I. and II.

Pope's Rape of the Lock.

Addison's Essays on Milton in the *Spectator*.

Earle's Philology of the English Tongue. Chaps. I. to VI. (inclusive).

Additional for Honours.

Hallam's Literary History (the parts relating to English Literature Elizabethan Period).
Sydney's Apologie for Poetrie (Arber's Edition).
Shakespeare's King Lear, and As you Like It.
Shelley's Prometheus Unbound.
Tennyson's Idylls of the King.
Earle's Philology of the English Tongue.

English History.

Pass.

Bright's History of England (Rivington's), Period II., 1485-1688.
Macaulay's History of England, Chaps. I-VI. (inclusive.)

Additional for Honours.

Bacon's Life of Henry VII. (Bohn.)
Green's History of England (the reign of Elizabeth.)
Memoirs of Col. Hutchinson (Bohn)
Hallam's Constitutional History, Chaps. I-V. (inclusive.)

French Language and Literature.

Pass.

Fasnacht's Synthetic French Grammar (Macmillan).
Beaumarchais—Le Barbier de Séville (Macmillan).
Victor Hugo—Les Ballades, in the volume entitled Odes et Ballades (Paris: Hachette).
Gosset's French Prosody.
Translation of easy passages from authors not specified.
French Composition.

Additional for Honours.

Brachet's Historical Grammar (Clarendon Press). The Introduction and Book I.; Book II., Parts 1 and 2.
Boileau—L'Art Poétique (Paris: Didot Frères).
Molière—Le Misanthrope (Macmillan).
Victor Hugo—Notre Dame de Paris (Hachette).
Saintsbury's Short History of French Literature, Books III. and IV.
Translation of passages from authors not specified.
French Composition.

French History.

Pass.

The Student's France (Murray), from the accession of Henry IV. to the establishment of the First Empire.

Additional for Honours.

Barran: Histoire de la Révolution Française.
Burke's Reflections on the Revolution in France.

German Language and Literature.

Pass.

Whitney's German Grammar (Macmillan), omitting the portions in small type.
Goethe—Götz von Berlichingen (Macmillan).
Schiller—Selections from Lyrical Poems (Macmillan).
Translation of easy passages from authors not specified.
German Composition.

Additional for Honours.

Whitney's German Grammar.

Goethe—Faust. Part I.

Schiller—History of the Thirty Years' War. First Part. First Book.

Heine—Buch der Lieder. Die Heimkehr only.

Scherer—A History of German Literature (Clarendon Press Edition).

Translation of passages from authors not specified.

German Composition.

German History.

Pass.

Simes' History of Germany (Macmillan).

Hallam's Middle Ages (the parts relating to Germany).

Additional for Honours.

Gibbons' Decline and Fall. Chapters IX., XIX., XXX., in so far as they relate to Germany; and Chapter XLIX., in so far as it relates to Charlemagne and his successors.

Gardiner's Thirty Years' War.

Schiller's History of the Thirty Years' War.

OF THE DEGREE OF MASTER OF ARTS.
REGULATIONS.

- I. The examination for the Degree of Master of Arts shall take place once in each year in the month of December.
- II. No candidate shall be admitted to the Degree of Master of Arts until after the expiration of two academical years from the time at which he obtained the Degree of Bachelor of Arts in this or in some other University recognized by this University.
- III. Every candidate shall be required to show a competent acquaintance with one at least of the following branches of knowledge :
 - 1. *Classics and Comparative Philology.*
 - 2. *Metaphysics, Logic, and Political Economy.*
 - 3. *Mathematics.*
- IV. Schedules fixing the special authors and works to be studied in Latin and Greek, and defining as far as may be necessary the range of questions to be set in the other subjects, shall be drawn up by the Faculty of Arts, subject to the approval of the Council, and shall be published not later than the month of January in the year preceding that in which the examination is held.
- V. A notice in the subjoined form shall be sent by each candidate to the Registrar not less than three months before the date of examination.

Form of Notice to be sent to the Registrar by Graduates of their Intention to present themselves for Examination.

I, _____ a Bachelor of Arts of the University of _____, hereby give notice that I intend to present myself at the Examination for the Degree of Master of Arts in the third term of 18____, for examination in the following branch, and send herewith the prescribed fee of £5 5s.

Dated this _____ day _____ 18____. (Signed).....
The Registrar,
University of Adelaide.

The Regulations concerning the Degree of Master of Arts allowed on the 4th January, 1882, are hereby repealed.

Allowed, 18th December, 1886.

Regulation V., allowed the 18th December, 1886, has been repealed and the above Regulation V., allowed 18th December, 1889, substituted.

SCHEDULES DRAWN UP UNDER NO. IV. OF THE FOREGOING REGULATIONS.

BRANCH I.

CLASSICS AND COMPARATIVE PHILOLOGY.

The Examiners will limit their selection of passages to the following authors, and in each year four will be prescribed for special study.

GREEK.

Homer—Odyssey, Books I. to VI.
Æschylus—Septem contra Thebas.
Sophocles—Ajax. Antigone.
Euripides—Medea and Hecuba.
Aristophanes—Knights.
Herodotus—Books III. and IV.
Thucydides—Books VI. and VII.
Plato—Apologia and Phædo.
Demosthenes—De Coronâ.

LATIN.

Virgil—Georgics.
Horace—Odes and De Arte Poeticâ.
Plautus—Menæchmi and Miles Gloriosus.
Juvenal—Satires IV. and X.
Lucretius—Book I.
Cicero—The Verrine Orations.
Livy—Books XXI., XXII., XXIII.
Tacitus—The Histories, Books I., II.

Composition—Greek and Latin prose.

The papers set at the Examination will also contain questions in Geography, and in Grammar.

Candidates will be expected to have a general acquaintance with the History of Greece and Rome, and one or more papers will be set in Comparative Philology.

The subjects for special study in December, 1890, are

GREEK.

Æschylus—Septem contra Thebas.
Plato—Apologia and Phædo.

LATIN.

Virgil—Georgics.
Livy—Books XXI., XXII., XXIII.

The subjects for special study in December, 1891, are

GREEK.

Homer—Odyssey, Books I. to VI.
Herodotus—Books III. and IV.

LATIN.

Plautus—Menæchmi and Miles Gloriosus.
Tacitus—Histories, Books I. and II.

BRANCH II.

MATHEMATICS.

Candidates may present themselves for examination either in Pure Mathematics or in Applied Mathematics; but will in either case be expected to show

a competent knowledge of the following preliminary portions of Mathematics, that is to say of :

Algebra, the simpler properties of Equations and Determinants.

Plane Trigonometry.

Elementary Analytical Geometry of Two and Three Dimensions.

The Elements of the Differential and Integral Calculus, with their simpler applications to Geometry.

The solution of such ordinary Differential Equations as occur in Dynamics.

The Statics of Solids and Fluids.

The Kinetics of a particle.

Candidates who present themselves in Pure Mathematics will further be examined in

The Theory of Equations, the higher parts of Analytical Geometry of Two and Three Dimensions, and of the Differential Calculus, and in Differential Equations.

Candidates who present themselves in Applied Mathematics will be examined in

The Dynamics of Rigid Bodies, and of Material Systems in general.

Hydrodynamics.

The Theories of Sound and Light.

The Theory of Attractions.

BRANCH III.

METAPHYSICS, LOGIC, AND POLITICAL ECONOMY.

Philosophy.—The History and Criticism of Philosophical Systems.

Moral Philosophy.—The History and Criticism of Ethical Systems.

Logic.—History of Logic. Inductive and Deductive Logic.

Political Economy.

Candidates who present themselves for Examination in this branch will be required to possess such a knowledge of Greek, Latin, French and German, as will enable them to exhibit a thorough acquaintance with the prescribed subjects.

The Examiners shall not be precluded from setting passages in philosophical books in the original languages.

OF THE DEGREE OF BACHELOR OF SCIENCE.

REGULATIONS.

- I. Students who, in the Senior Public Examinations, pass in either Latin, Greek, French, or German, and in Pure Mathematics and Physics, may be enrolled as Matriculated Students in Science.
- II. Students who have not complied with the above conditions may, nevertheless, be enrolled as Matriculated Students on satisfying the Professors in the Faculty of Science that they have sufficient knowledge to enable them to enter upon the First Year's Course.
- III. To obtain the Degree of Bachelor of Science every candidate must, after matriculation, complete three academical years of study, and pass the Examination proper to each year as hereinafter specified, and, in addition, must at some time before completing the course satisfy the Examiners in two of the following languages:—Latin, Greek, French, and German; but candidates who have passed in one or more of the above languages at the Senior Public Examination shall not be required to present themselves for further examination in such language or languages.
- IV. At the First Examination every candidate shall be required to First Year. satisfy the Examiners in each of the following subjects :—
 1. *Elementary Pure Mathematics.*
 2. *Elementary Physics.*
 3. *Elementary Biology and Physiology.*
 4. *Elementary Inorganic Chemistry.*

* Students who have passed the First Year's Examination in Science, and who wish to enter for the First Year's Examination in Arts will not be required to be re-examined in such subjects as are common to the two Examinations.

The examination in any subject of the B.Sc. course may be partly practical.
- V. At the Second Examination every candidate shall be required to Second Year. satisfy the Examiners in three of the following subjects, of which one must be either Pure Mathematics, Applied Mathematics, or Physics :—
 1. *Pure Mathematics.*
 2. *Applied Mathematics.*
 3. *Physics.*

4. *Elementary Organic and Practical Chemistry.*
5. *Botany.*
6. *Physiology.*
7. *Geology.*

Third Year.

VI. At the Third Examination every candidate shall be required to satisfy the Examiners in three of the following subjects, or in two, one being in honours.

1. *Mathematics.*
2. *Physics, including Practical Physics.*
3. *Advanced Organic, Inorganic, and Practical Chemistry.*
4. *Animal Physiology, including Histology, Physiological Chemistry, and the Elements of Development.*
5. *Systematic Botany, with Vegetable Morphology, Histology, and Physiology.*
6. *Geology, Mineralogy, and Palæontology.*

VII. In any year candidates may be examined for honours in any one or more subjects. Candidates for honours who do not attain the required standard may nevertheless be allowed a pass if in the opinion of the Examiner they shall have shown sufficient proficiency.

VIII. Schedules defining the range of study shall be drawn up by the Faculty of Science, subject to the approval of the Council, and shall be published in the month of January in each year. The dates of the Examinations shall be fixed by the Council.

IX. Any Professor may permit a student to substitute for any course of lectures properly belonging to his year an advanced course of lectures in the same subject.

X. Unless the Council shall have granted an exemption, candidates for Examination in any subject on which lectures are given must present a certificate from the Professor or Lecturer giving such lectures of regular attendance thereat during the year.

XI. The names of candidates who pass with honours shall be arranged in three classes in order of merit. The names of other successful candidates shall be arranged in three classes in alphabetical order.

Fees

XII. The following Fees shall be paid in advance :—

	£	s.	d.
Fee for Graduating Students for each term's instruction	5	5	0
Fee for the Degree of Bachelor of Science... ..	3	3	0
Fees for non-graduating Students in each Term :			
First Year—each subject except Practical Chemistry	1	10	0
Second and Third Years—each subject except Practical Chemistry	2	2	0
Third Year—Practical Chemistry	3	3	0

XIII. The following form of notice is prescribed :

Form of notice to be sent to the Registrar by Undergraduates of their intention to present themselves for Examination.

I, _____ an Undergraduate of this University, hereby give notice that, for the purpose of completing the year of the course for the Degree of Bachelor of Science, I intend to present myself at the Examination in the _____ Term of 189 , for examination in the undermentioned subjects, viz :

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

I send herewith the prescribed Certificates of Attendance at Lectures.

Dated this _____ day of _____ (Signed)....., 189 .

The Registrar,
University of Adelaide.

ADDENDUM.

The Regulations concerning the Degree of Bachelor of Science allowed on the 4th January, 1882, are hereby repealed ; but students who shall have completed either the First or Second Year of their course on the 31st of March, 1887, shall have the option of continuing their course under such Regulations.

Allowed 18th December, 1886.

SCHEDULES DRAWN UP UNDER No. VIII. OF THE FOREGOING REGULATIONS.

DETAILS OF SUBJECTS FOR THE ORDINARY EXAMINATION FOR THE DEGREE OF B.Sc. IN NOVEMBER, 1890.

LANGUAGES.

- | | |
|--------|--|
| LATIN | } The Course prescribed for the First Year of the B.A. |
| GREEK | |
| FRENCH | } The Course prescribed for the Third Year of the B.A. |
| GERMAN | |

FIRST YEAR'S COURSE.

ELEMENTARY PURE MATHEMATICS.

Pass.

The Geometry of the straight line and circle: the theory of Proportion and of Similar Rectilineal Figures.

Elementary Solid Geometry.

The Elements of Algebra as far as the Binomial Theorem (inclusive).

The Elements of Trigonometry, as far as the Solution of Triangles (inclusive).

Honours.

Algebra, Trigonometry ; Elements of Statics, Dynamics, and Hydrostatics.

ELEMENTARY PHYSICS.

Pass.

The first principles of Mechanics, Hydrostatics, Heat, Light, Sound, Electricity and Magnetism.

Honours.

Same as for Pass in Second Year of B.Sc. Course.

ELEMENTARY BIOLOGY AND PHYSIOLOGY.

The instruction in these subjects will include :—

- (i.) A course of elementary lectures on human physiology, and
- (ii.) A course of demonstrations in practical biology.

1. Elementary Physiology.

Pass.

1. The General Structure, Composition, and Functions of the Tissues of the Human Body.
2. The Nutrition of the Body, including Circulation, Respiration, Alimentation, Nutrition of the Tissues, Excretion, together with the general structure and functions of the organs concerned.
3. Animal Heat.

Text books recommended :—

Handbook of Physiology : Kirkes ; or
Manual of Physiology : Yeo.

2. Practical Biology and Physiology.

Pass

1. The fundamental facts and laws of the morphology, histology, physiology and life-history of plants, as illustrated by the following types :—
Yeast Plant, Bacteria, Protococcus, Mucor, Penicillium, Spirogyra, Nitella, the Bracken Fern, and the Bean plant.
2. The fundamental facts of animal morphology and physiology as illustrated by the following types :—
Amœba, Vorticella, Hydra, Freshwater-mussel, Crayfish, Frog.
3. The histological characters of the blood, epidermal and connective tissues, cartilage, bone, muscle and nerve, in Vertebrata.

Text books recommended :—

Practical Biology : Huxley and Martin.
The Frog, an Introduction to Anatomy and Histology : Milnes Marshall.
Elements of Histology : Klein.

Honours.

A more thorough knowledge of the above subjects in i. and ii.

ELEMENTARY INORGANIC CHEMISTRY.

Pass.

The non-metallic elements and their more commonly known compounds.

The following metals and their more commonly known compounds :—

Potassium, Sodium, Silver.
Calcium, Strontium, Barium
Aluminium.
Magnesium. Zinc. Cadmium.
Lead.
Manganese. Iron. Cobalt. Nickel. Chromium.

Bismuth. Copper. Mercury. Gold. Tin.
Platinum.

Spectrum analysis, the elements of chemical theory, the atomic theory and cognate subjects, and the laws of electrolysis.

Text books recommended :—

Introduction to the Study of Chemistry : Remsen, or
Elementary Chemistry : Wilson.

Honours.

A more thorough knowledge of the above subjects.

SECOND YEAR'S COURSE.

PURE MATHEMATICS.

Pass.

Algebra. Trigonometry.

APPLIED MATHEMATICS.

Pass.

Elements of Statics, Dynamics, and Hydrostatics.

Honours.

Elementary Analytical Conics. Elementary Differential and Integral
Calculus. Elementary Spherical Trigonometry and Astronomy.

Text-books recommended :

Smith's Conic Sections.

Todhunter's Differential Calculus.

Todhunter's Integral Calculus.

McClelland & Preston's Spherical Trigonometry, Vol. I.

Godfray's Astronomy.

NOTE.—No regular course of instruction will be given in Spherical Trigonometry and Astronomy, but a few lectures will be given in the third term on the more difficult problems in these subjects.

PHYSICS.

Pass.

Sound: The general theory of Waves and Vibrations. Lissajous' and other optical methods of studying Vibrations. Waves in Solids, Longitudinal Vibrations of Rods and of Columns of Air. Vibrations of Strings, Resonance. Analysis of Sounds, Theory of Quality. Interference of Sound, Beats.

Geometrical Optics.

Text-book recommended —

Heath's Elementary Geometrical Optics.

Heat.

Text-book recommended :—

Tait's Heat.

Electricity and Magnetism.

Text-book recommended :—

Sylvanus Thomson—Electricity and Magnetism.

Honours.

Same as for *Pass* in Third Year.

ELEMENTARY ORGANIC, AND PRACTICAL CHEMISTRY.

Pass.

- Principles of Ultimate Analysis of Organic Compounds. Calculation of Empirical Formulæ from Percentage Composition. Principles upon which Molecular and Constitutional Formulæ are determined. Isomerism. Homologous Series. Classification of Carbon Compounds. General knowledge of C_nH_{2n+2} Hydrocarbons, with special knowledge of Methane and Ethane and their principal derivatives. General knowledge of the Alcohols, with special knowledge of Methyl, Ethyl, and Propyl and Isopropyl Alcohols and their related Ethers, Aldehydes, Acids, and Ketones. Ethylene and Acetylene, and their chief derivatives and related Alcohols, Aldehydes, and Acids. The more commonly occurring Organic Acids, their methods of formation and relations to one another. Glycerine and Allyl Alcohol, and their chief derivatives. Constitution of Fats and Oils. Saponification. Erythrite, Mannite, Dulcete, Isodulcete. Dextrose and Laevulose Cane-sugar, Milk-sugar, Cellulose, Starch, Glycogen, Dextrine. A general knowledge of the principal Compound Ammonias and Organometallic bodies. Cyanogen and its compounds. Cyanic and Cyanuric Acids. Urea and its allies. Uric Acid. Guanidine. Glycoeyamine. Glycoeyanidine. Sarkine. Creatine. Creatinine. Theobromine. Caffeine. A general knowledge of the simpler and more commonly occurring Hydrocarbons, Alcohols, Aldehydes, Acids, Ketones, and derivatives of the Aromatic Series, especially those which are important from a medical or technical point of view. Glucosides. Amygdalin. Salicin. Alkaloids. Conine. Nicotine. Morphine. Strychnine. Quinine. Cinchonine. Some of the more important Animal Substances, such as Taurine, Lecithin, Choline, Albumen, Fibrin, Casein. Fermentation, Decay.

Practical Chemistry.

Analysis of mixtures of Inorganic Compounds, and of simple mixtures containing Organic Substances.

Text-books :

- Organic Chemistry : Remsen.
Organic Chemistry : Fownes, revised by Watts.
Qualitative Analysis : Valentin.

Honours.

A more thorough knowledge of the above subjects.

BOTANY.

Pass.

The General Structure and Physiology of a flowering plant; *Elementary Tissues*, their constituents, contents, and mode of development; *General Characters and Functions* of the root, stem, leaves, and floral organs; *Reproduction*, fertilization, fruit, seed, and germination.

Botanical Characters of the following Natural Orders :

Ranunculaceæ, Cruciferæ, Caryophyllaceæ, Malvaceæ, Rutaceæ

Leguminosæ, Myrtaceæ, Rosaceæ, Umbelliferae, Compositæ, Goodeniviæ, Campanulaceæ, Epacrideæ, Boragineæ, Scrophulariaceæ, Labiateæ, Solanaceæ, Amarantaceæ, Chenopodiaceæ, Proteaceæ, Coniferae, Orchidaceæ, Amaryllidaceæ, Liliaceæ, Cyperaceæ, Gramineæ, and Filices.

Practical Botany.

Candidates must be prepared to describe in technical language such plant or parts of plants as may be placed before them and to classify specimens illustrative of any of the Natural Orders above enumerated.

Text-books recommended :

Balfour's Class Book, or Balfour's Manual of Botany.
Mueller's Botanic Teaching.

Honours.

A more thorough knowledge of the above subjects.

PHYSIOLOGY.

Pass.

This Course includes the subjects prescribed for the First Year. and in addition—

4. The special physiology of the Contractile Tissues, the structure and physiology of the Sense Organs, and of the Nervous System.
5. Voice and Speech.
6. The histology of the Tissues and Organs of the Body.
7. Outlines of Reproduction and Development.

Text-books same as for first year. Foster's Text-book of Physiology should also be consulted.

Practical Examination.

Each candidate must be prepared (1) to examine and describe microscopical specimens of animal tissues and organs. (2) To make microscopical preparations of animal tissues and organs. (3) To prove his practical acquaintance with the Chemistry of Albumen and its allies, milk, the digestive juices and their actions, blood, urine, glycogen.

Also to show his practical acquaintance with the most important apparatus used in studying the Physiology of muscle, nerve, the circulatory and respiratory system, and the organs of special sense.

Text-books recommended :

Elements of Histology : Klein.
Elements of Physiological Physics ; McGregor Robertson.
A course of Practical Physiology : Foster and Langley.

Honours.

A more thorough knowledge of the above subjects.

GEOLOGY.

Pass.

1. The principles of geological dynamics, and physiography. Effects of rain ; sources of water supply. Geological action of rivers. Marine denudation. Geological action of snow and ice. Formation of modern strata. Central heat. External phenomena of volcanoes. Movements of the earth's crust. Agency of organic beings in modifying the earth's surface.

- II. The composition and formation of the principal rocks. Disintegration of rocks. Classification and characters; metamorphism. Cleavage.
- III. The structure of rock masses. Stratification. Calculation of thickness of strata. Disturbance and contortion of strata, &c., &c. Construction of geological sections and maps.
- IV. The laws and generalizations of Palæontology.
- V. Classification of the Geologic Systems of Europe; their Australian equivalents.

Text-book: Geikie, Manual of Geology.

Honours.

A more thorough knowledge of the above subjects.

THIRD YEAR'S COURSE,

MATHEMATICS.

Pass.

Elementary Analytical Conics. Elementary, Differential, and Integral Calculus.

Honours.

Analytical Statics, Dynamics of a Particle, Hydromechanics, and Solid Geometry.

PHYSICS, INCLUDING PRACTICAL PHYSICS.

Pass.

The subject of the Second Examination for the Degree of B.Sc., treated more fully with the following additions—

Mechanics: Moment of Inertia, Centre of Oscillation, Kater's Pendulum, Measurement of Intensity of Gravity. The motion of Liquids and Gases, Toricelli's Theorem.

Properties of Matter: Elasticity, Viscosity, Capillarity, Diffusion.

Sound: Vibrations of Bars and Plates. Theory of Consonance and Dissonance. Combination Tones.

Optics: Methods of measuring the Velocity of Light. Spherical Aberration, Caustics. Focal Lines. Study of Spectra. Fluorescence. Theory of Colour. The elements of Physical Optics; viz., the laws of Reflection and Refraction, the simpler phenomena of Interference and Diffraction, Polarization, and Double Refraction, with their explanations.

Heat.

Text-book recommended:—

Maxwell's Theory of Heat.

Electricity and Magnetism.

Text-books recommended:—

Cumming's Theory of Electricity.

Maxwell's Elementary Treatise on Electricity and Magnetism.

Stewart & Gee's Practical Physics, Part II.

Honours.

A more thorough knowledge of the same subjects.

ADVANCED ORGANIC, INORGANIC, AND PRACTICAL CHEMISTRY.

Pass.

More advanced organic, inorganic, and practical chemistry. Students may be required to perform simple quantitative analyses.

Honours.

A more thorough knowledge of the above subjects, and especially of more recent discoveries, and simple quantitative analysis in addition.

*ANIMAL PHYSIOLOGY, INCLUDING HISTOLOGY, PHYSIOLOGICAL CHEMISTRY, AND THE ELEMENTS OF DEVELOPMENT.

Pass.

Chemical composition of food. The quantities and kinds of food required to balance the losses of economy.

The several processes to which food is subjected in Digestion.

Absorption in general, chyloferous and lymphatic absorption.

The Blood, its organic and chemical constitution, phenomena and mechanism of Circulation.

Respiration, its mechanical and chemical actions, effects of its suppression.

Temperature of the body; production and regulation of Animal Heat.

Secretion and Excretion; construction and operation of secreting apparatus. Chemical composition and amount of the Urinary, Cutaneous, and Pulmonary excretions.

Muscular and Contractile substance; phenomena presented by acting Contractile substance.

Nutrition, Growth, and Reparation.

The Mechanism of Locomotion, Voice, and Speech.

Constitution and Functions of Nervous System. Distinction of Motor and sensory Nerves or Nerve-fibres. Phenomena presented by nerves in action. Influence on Contractile Tissue.

Functions of Brain, Spinal Cord, and Ganglia. Sensation, Voluntary motion, Reflex action, Inhibitory action. Influence of Nervous System on Heart and Blood Vessels, and on Secreting Organs.

Organs of the Senses and their functions.

Reproductive Organs and their functions.

Changes produced in the Ovum by impregnation. Outlines of the Development of the Embryo and its envelopes. Nutrition of the Fœtus. Changes which occur at Birth in the Fœtus and in the parent. Lactation.

Changes which take place with age in the proportions of the Body, in the Skeleton, in the Dentition, and in the Reproductive apparatus.

Differences between Man and Woman other than in the Reproductive Organs.

Senile decay.

Somatic and Molecular Death.

* The special attention of Students is drawn to the fact that it will not be possible for them to follow the course of instruction in Animal Physiology and Systematic Botany of the Third Year of the B.Sc. Course without some knowledge of Organic and Practical Chemistry. Similarly a knowledge of Practical Chemistry is necessary to the Student of Mineralogy.

Text-books recommended :

Text-book of Physiology: M. Foster.

Text-book of Human Physiology—Landois and Stirling.

Practical Examination.

The same as for the Second Year's Course, but with more extended work.

Honours.

A more thorough knowledge of the above subjects.

*SYSTEMATIC BOTANY, WITH VEGETABLE MORPHOLOGY, HISTOLOGY, AND PHYSIOLOGY.

Pass.

The chemical and physical properties of plant tissues. The materials of plant food. Movements of water and gases in plants. The general nature of the changes by which the food materials are converted into the materials of the tissues; their distribution throughout the plant. Respiration. The influence of light and temperature upon plants. Growth. Heliotropism; Geotropism. Irritability. General phenomena of sexual reproduction; Parthenogenesis; Hybridization; Dichogamy. Causes of Variation; Origin of Species.

The points of structure and development which essentially characterize the chief orders of Australian Flowering Plants, and the following groups—Lycopodiaceæ, Filices, Hepaticæ, Musci, Characeæ, Fucaceæ, and Fungi.

Candidates must be prepared to dissect, and to examine with the simple or compound microscope, or with both, any plants or parts of plants placed before them, and to write descriptions of them. They will also be expected to prove an acquaintance with the commoner species of the local flora.

Honours.

A more thorough knowledge of the above subjects.

GEOLOGY, MINERALOGY, AND PALÆONTOLOGY.

Geology and Palæontology.

Pass.

A fuller treatment of the principal subjects comprised in the Second Year's Course.

The features in detail of the Geological systems of the Australian sedimentary rocks.

The nature and processes by which the remains of animals and plants are preserved and fossilized. Distribution of land plants and animals; botanical and zoological provinces: distinctive characteristics of flora and fauna of different regions; provinces of marine life; distribution of life in depth; distribution of life in time.

Candidates will be required to identify and describe rocks and fossils characteristic of the Australian formations. They will also be expected to draw geological maps and sections.

Honours.

A more thorough knowledge of the above subjects.

* The special attention of Students is drawn to the fact that it will not be possible for them to follow the course of instruction in Animal Physiology and Systematic Botany of the Third Year of the B.Sc. Course without some knowledge of Organic and Practical Chemistry. Similarly a knowledge of Practical Chemistry is necessary to the Student of Mineralogy.

**Mineralogy.*

Pass.

1. The *physical properties* of minerals viewed principally as aiding in the practical discrimination of the various kinds. Fracture. Hardness. Tenacity. Specific Gravity. Lustre. Transparency. Refraction. Optic Axes.
2. *Crystallography* —Classification of the crystalline forms and their chief combinations. Isometric drawing. Principles of goniometers. Cleavage, Pseudomorphism. Fossilization.
3. The use of the blowpipe, and of such chemical tests as are calculated to be serviceable when in the field. Dimorphism. Isomorphism.
4. The systematic description of the more important species, with particular reference to the mode and places of occurrence, both of those substances which bear a commercial value, and of those which derive their chief interest from geological and physical consideration.

Candidates for examination will be required to prove a practical acquaintance with crystal forms, and with minerals, and the physical and chemical methods of discriminating them.

Honours.

A more thorough knowledge of the above subjects

The following text-books may be used :

- Bauermann's Mineralogy.
- Dana—Manual of Mineralogy.
- Mitchell's Crystallography.

* The special attention of Students is drawn to the fact that it will not be possible for them to follow the course of instruction in Animal Physiology and Systematic Botany of the Third Year of the B.Sc. Course without some knowledge of Organic and Practical Chemistry. Similarly a knowledge of Practical Chemistry is necessary to the Student of Mineralogy.

OF THE PHYSICAL LABORATORY.

REGULATIONS.

- I. The Physical Laboratory shall be open during Term Time for three afternoons in the week ; the hours and days to be fixed by the Professor of Natural Philosophy, subject to approval by the Council.
- II. Instruction will be given in Practical Physics ; but no student will be admitted to Laboratory Work unless he shall have shown to the satisfaction of the Professor of Natural Philosophy that he possesses sufficient theoretical knowledge to enable him to carry on his work intelligently.
- III. Apparatus will be supplied by the University for the general use of Students on the condition that breakages and damages be made good.
- IV. The Professor of Natural Philosophy may exclude from the Physical Laboratory any student for any cause satisfactory to the Professor ; every such exclusion and the grounds for it to be reported by the Professor to the Council at its next meeting, and in case of any student being so excluded the fees paid by him will not be refunded.

FEES.

V. The fees for students not attending ordinary courses of instruction in Practical Physics are as follow :—

For 3 days in the week	...	...	£4	4	0	per term.
“ 2 “ “ “	...	...	3	3	0	“ “
“ 1 “ “ “	...	...	2	2	0	“ “

Allowed, 18th December, 1886.

OF THE CHEMICAL LABORATORY.

REGULATIONS.

- I. The Chemical Laboratory shall be open daily during Term Time (Saturdays excepted) from 10 a.m. to 5 p.m.
- II. Instruction will be given in Qualitative and Quantitative Analysis : but no student will be admitted to Laboratory Work unless he shall have shown to the satisfaction of the Professor of Chemistry that he possesses sufficient theoretical knowledge to enable him to carry on his work intelligently.
- III. Each student will be provided with a set of re-agents and a separate working bench, fitted with drawers, shelves, and cupboards, to which gas and water are laid down.
- IV. Each student will be required to provide himself with a set of apparatus necessary for a course of Experimental Chemistry and Qualitative Analysis, which will be supplied by the University at cost price.
- V. Students engaged in Quantitative Analysis will be required to provide themselves with such additional apparatus as may be necessary, and in every case with a platinum crucible and capsule, and a set of gramme weights.
- VI. Students engaged in private investigations will be required to provide themselves with any materials they may require which are not included amongst the ordinary re-agents ; also with the common chemicals, when they are employed in large quantities.
- VII. The larger and more expensive pieces of apparatus will be supplied for the general use of students by the University on the condition that all breakages be made good.
- VIII. All preparations made from materials belonging to the Laboratory shall become the property of the University.
- IX. No experiments of a *dangerous nature* may be performed without the express sanction of the Professor of Chemistry.
- X. The Professor of Chemistry may exclude from the Chemical Laboratory any student guilty of a breach of the Rules, and in case of any student being so excluded the fees paid by him will not be refunded.

FEES.

XI. The fees for students not attending the ordinary course of instruction are as follow:—

For 5 days in the week,		£4 10 0 per month or	£10 10 0 per term.
“ 4	“ “	4 0 0	“ 9 0 0 “
“ 3	“ “	3 0 0	“ 7 0 0 “
“ 2	“ “	2 0 0	“ 5 0 0 “
“ 1	“ “	1 0 0	“ 2 0 0 “

Allowed, 18th December, 1886.

REGULATIONS

OF THE DEGREE OF BACHELOR OF LAWS, AND OF LECTURES AND EXAMINATIONS IN LAWS FOR STUDENTS NOT STUDYING FOR THE DEGREE.

- I. To obtain the Degree of Bachelor of Laws, any student must after Matriculation complete three academical years of study, and pass the Examination proper to each year. A certificate that he has passed a Matriculation Examination of the University shall, if he has passed in Latin, be granted to each successful candidate at the Senior Public Examination, who wishes to become an articulated clerk.
- II. The Examinations shall be held in the first and third terms of First Year. each academical year.
- III. At the First Examination for the Degree of Bachelor of Laws, every student proceeding to that Degree shall be required to satisfy the examiners in each of the following subjects :
 1. *Roman Law.*
 2. *The Law of Property.*

The papers to be set in Roman Law shall contain passages in Latin, which the students shall be required to translate. No student will be allowed to pass in Roman Law who does not show a competent knowledge of Latin.
- IV. At the Second Examination for the Degree of Bachelor of Laws, Second Year. every student proceeding to that Degree shall be required to satisfy the Examiners in each of the following subjects :
 1. *Jurisprudence.*
 2. *Constitutional Law.*
 3. *The Law of Contracts.*
- V. At the Third Examination for the Degree of Bachelor of Laws, Third Year. every student proceeding to that Degree shall be required to satisfy the Examiners in each of the following subjects :
 1. *International Law.*
 2. *The Law of Wrongs (civil and eriminal).*
 3. *The Law of Procedure.*
- VI. Students who in accordance with the Regulations pass the Examinations in the Law of Property, Constitutional Law, the Law of Contracts, the Law of Wrongs (civil and criminal), and the Law of Procedure, and fulfil all other conditions prescribed by Certificates.

the Statutes and Regulations shall be entitled to receive a final certificate that they have passed in those subjects.

VII. A student who shall pass in any subject shall be entitled to a certificate to that effect.

VIII. Schedules fixing books and detailed subjects of study and examination shall be drawn up by the Faculty, subject to the approval of the Council, and shall be published not later than the month of January in each year.

IX. Any student may present himself for Examination in any subject in which he has gained credit for one academical year's attendance at Lectures, but no student shall so present himself in any subject in which he has failed to gain credit for attendance at the University Lectures during so many terms as shall constitute one academical year unless,

His attendance on lectures shall have been dispensed with by special order of the Council; or unless he is articulated to a practitioner of the Supreme Court whose office is more than ten miles distant from the University.

The Examination need not be passed in the same academical year in which the Lectures have been attended, nor need the Terms constituting an academical year be all kept in one and the same year.

X. No student shall in any term be credited with attendance at the University lectures in any subject unless he shall have attended during that term three-fourths of the lectures given in that subject, except in cases of illness or other sufficient cause to be allowed by the Council.

XI. The names of the students passing each Examination for the Degree of Bachelor of Laws shall be arranged in three classes, in alphabetical order in each.

The names of all other students passing in any subject shall be arranged in alphabetical order in lists, which shall indicate the subjects in which each student has passed.

The Council shall transmit a copy of the above-mentioned lists to the Chief Justice or (if the Chief Justice be absent from Adelaide, or if there be no Chief Justice) to the Senior Judge of the Supreme Court.

XII. Notwithstanding anything contained in the forgoing regulations, any matriculated student who shall, before the 31st day of December, 1885, have passed the intermediate or final examination prescribed by the Rules of the Supreme Court shall be

entitled to obtain the Degree of Bachelor of Laws on completing the second and third years of the course for that Degree, and on passing the examination proper to each of those years. Provided that at the examination in such second year he shall pass in Roman Law, which he may substitute for Jurisprudence.

XIII. Notices by students of their intention to present themselves for examination must reach the Registrar not more than six weeks and not less than one calendar month before the commencement of the Examination. Notices of entry for Examination.

XIV. The undermentioned fees shall be payable in advance : Fees.

Entrance fee for students not intending to graduate in Laws but intending to attend lectures or present themselves for examination in Laws	£1 1 0
Fees payable in each term by every student attending Lectures on any subject included in the course for the Degree of Bachelor of Laws :	
For each subject	1 1 0
Examination fee for each subject	0 15 0
Fee for certificate of having passed in one or more subjects of any examination in the course for the Degree of Bachelor of Laws	0 5 0
Fee for final certificate showing all the subjects in which a Student has passed at the three Examinations in Laws	1 1 0
Fee for the Degree of Bachelor of Laws	3 3 0

XV. The following Forms of Notice are prescribed : Forms of notice for Examination.

Form of Notice to be sent to the Registrar by any student proceeding to the Degree of Bachelor of Laws, and of his intention to present himself for examination.

THE UNIVERSITY OF ADELAIDE.

I, _____, a student of this University, hereby give notice that for the purpose of completing the _____ year of the course for the Degree of Bachelor of Laws, I intend to present myself at the Examination in the _____ Term of 18 _____ for examination in the undermentioned subjects, viz. :

[Here state the subjects.]

I send herewith the prescribed fee of £ _____ being for each of the above-mentioned subjects.

(If the student is an articled clerk, add):

I am articled to Mr. _____, a solicitor of the Supreme Court, whose office is situated in _____

Dated this _____ day of _____ 18 _____

(Signature of Student).....
(Address).....

To the Registrar,
University of Adelaide.

Form of notice to be sent to the Registrar by any student not proceeding to the Degree of Bachelor of Laws of his intention to present himself for examination.

THE UNIVERSITY OF ADELAIDE.

I, _____, a student of this University, hereby give notice that I intend to present myself at the Examination in Laws, in the term of 18 _____ for examination in the undermentioned subjects, viz.: [Here state the subjects.]

I send herewith the prescribed fee of £ _____ being the entrance fee (if not previously paid), and £ _____ for each of the above-mentioned subjects.

(If the student is an articled clerk, add):

I am articled to Mr. _____ a solicitor of the Supreme Court, whose office is situated in _____

Dated this _____ day of _____ 18 _____
(Signature of Student).....
(Address).....

To the Registrar,
University of Adelaide.

The Regulations concerning the Degree of Bachelor of Laws allowed on the 12th day of December, 1882, are hereby repealed.

Allowed the 18th day of December, 1886.

SCHEDULES DRAWN UP UNDER No. VIII. OF THE FOREGOING REGULATIONS.

* DETAILS OF SUBJECTS FOR THE ORDINARY EXAMINATION IN NOVEMBER, 1890, AND MARCH, 1891.

FIRST YEAR'S COURSE.

ROMAN LAW.

Text-books recommended :

- Sandars' Institutes of Justinian.
- Poste's Institutes of Gaius.

† Book of reference recommended :

- Hunter's Introduction to Roman Law.

The papers to be set in Roman Law shall contain passages in Latin which the students shall be required to translate. No student will be allowed to pass in Roman Law, who does not show a competent knowledge of Latin.

THE LAW OF PROPERTY.

- The Elementary Principles of the Law of Real and Personal Property.
- The Real Property Acts.

The Intestate Real Estates Distribution Act, 1867, and subsequent amendments.

* For details of subjects for the Ordinary LL.B. Examination in March, 1890, see University Calendar for 1889.

† Students are not expected to purchase books of reference.

Text-books recommended :

- Stephen's Commentaries, Vol. I; and Vol. II, as far as relates to Personal Property.
Williams' Real Property.
Williams' Personal Property.

SECOND YEAR'S COURSE

JURISPRUDENCE.

Text-books recommended :

- Campbell's Students' Austin.
Maine's Ancient Law.

† Books of reference recommended :

- Dr. Hearn's Legal Rights and Duties.
Holland's Jurisprudence.

CONSTITUTIONAL LAW.

- (a) The History of Responsible Government in Great Britain.
(b) The relation of the Crown and British Parliament to the colonies.

Text-books recommended :

- Taswell Langmead's Constitutional History.
Forsyth's Cases and Opinions on Constitutional Law, Chapters I., III., V., XI., XVI.
Tarring's Laws relating to the Colonies.
The Colonial Laws Validity Act (28 and 29 Vict. c. 63).
The Acts in force in South Australia relating to the Constitution.

† Books of reference recommended :

- Hallam's Constitutional History.
Stubbs' Constitutional History.
May's Constitutional History.
Dicey on the English Constitution.
Anson's Law and Custom of the Constitution.

THE LAW OF CONTRACTS.

Text-books recommended :

- Anson on Contracts.
Snell on Equity.
Smith's Leading Cases [the cases referring to the Law of Contract].

† Books of reference recommended :

- Leake on Contracts.
Pollock on Contracts (latest edition).

THIRD YEAR'S COURSE.

INTERNATIONAL LAW.

- (a) The general character of the systems called Public and Private International Law.
(b) Public International Law : such questions as arise between Sovereign Powers in time of peace.
(c) Private International Law so far as it deals with Status, Capacity, Marriage, Domicile, Contract, and Torts.

† Students are not expected to purchase books of reference.

Text-books recommended :

Kent's International Law (Abdy's edition).
Westlake's Private International Law.

† Books of reference :

Phillimore's International Law.
Wheaton's International Law.
Dicey on Domicile.
Davis' International Law.

THE LAW OF WRONGS.

(Civil and Criminal):

Text-books :

Pollock's Law of Torts.
Sir F. Stephen's Digest of Criminal Law.

† Books of reference recommended :

Addison's Law of Torts.
Russell on Crimes.
Sir F. Stephen's History of the Criminal Law.

LAW OF PROCEDURE.

(a) Law of Evidence.

Text-books recommended :

Sir F. Stephen's Digest of the Law of Evidence.
Best's Law of Evidence.

† Book of reference recommended :

Taylor on Evidence.

(b) The Supreme Court Act and Rules of Court.

† Books of reference recommended :

Archbold's Chitty's Practice.
Wilson's Judicature Acts and Rules.

(c) Insolvency Acts, Local Court Acts.

OF THE DEGREE OF DOCTOR OF LAWS.

REGULATIONS.

- I. Every candidate for the Degree of Doctor of Laws must pass the prescribed examination and comply with the other requirements of the Regulations.
- II. An examination for the Degree will, if required, be held in the third term of each academical year.
- III. No candidate shall be admitted to the examination unless he is a Bachelor of Laws of at least four years standing.
- IV. Every candidate must show a competent knowledge of each subject taken up by him ; and any candidate, who shall pass in some subjects and fail in others, shall not be allowed, at any future examination, credit for subjects, in which he shall have previously passed.
- V. Every candidate must present to the examiners an original Essay of sufficient merit on some subject to be approved by the Faculty of Law. Such Essay need not be composed during the examination ; but each candidate must satisfy the examiners, by such proof as they shall require, that the Essay is of his own composition. An Essay, presented by a candidate who fails to pass, will not be accepted at a future examination.
- VI. The subjects of examination shall for the present be :
 1. *Roman Law.*
 2. *Constitutional Law and History.*
 3. *International Law.*or (at the option of the candidate),
Jurisprudence and Principles of Legislation.

The Council may vary the subjects from time to time, but at least one academical year's notice of any change shall be given.
- VII. The names of candidates who pass the examination shall be arranged in a single class in order of merit.

VIII. A notice in the subjoined form shall be sent by each candidate to the Registrar not less than six months before the date of Examination.

I, _____ a Bachelor of Laws, having obtained that Degree on the _____ day of _____ in the year 18 _____, intend to present myself at the next examination for the Degree of Doctor of Laws in the following subjects.

The subject of my Essay will be _____
I send herewith the prescribed fee of £10.

Dated this _____ day of _____ 18 _____
Signature of Candidate.....
Postal Address.....

To the Registrar
University of Adelaide.

IX. The undermentioned fees shall be paid in advance :

Examination Fee	...	...	...	...	£10	0	0
Fee for the Degree of Doctor of Laws			...	...	£10	0	0

The Regulations concerning the degree of Doctor of Laws allowed on the 16th day of September, 1885, are hereby repealed.
Allowed on the 18th December, 1886.

The following are the subjects for the "Essay" required from Candidates for the degree of LL.D. in 1890 :—

1. The Influence of Roman Law on English Equity ; or,
2. Recent Developments in Public International Law ; or,
3. Bentham's Influence on English Legislation.

Candidates will be required to make a full acknowledgement of all authorities to whom they are directly indebted in the composition of their Essays.

RULES OF THE SUPREME COURT.

The rules of the Supreme Court, of which copy is annexed, were published in the *Government Gazette*, February 1st, 1883, and are published in the *Calendar for convenience of reference* :—

In the Supreme Court of South Australia.—General Rules and Orders made by the Judges of the Supreme Court in pursuance of an Act, No. 31 of 1855-6, intituled “An Act to consolidate the several Ordinances relating to the Establishment of the Supreme Court of the Province of South Australia.” Whereas, by an Act of the Parliament of South Australia, No. 31 of 1855-6, intituled “An Act to consolidate the several Ordinances relating to the Establishment of the Supreme Court of the Province of South Australia,” it is enacted that it shall be lawful for the Judges of the Supreme Court to make and practise such general rules and orders touching and concerning the admission of attorneys, solicitors, and barristers as the circumstances of the province may require : It is therefore ordered that the rules enumerated in the schedule hereto shall be of no force as regards gentlemen who, after the coming into operation of these rules, shall become articled to practitioners.

And it is further ordered that :

- I. Every such articled clerk, before he applies for admission to practise in the court, must, after examination, have taken or be entitled to take the Degree of Bachelor of Laws at the University, or must, at the proper examinations of the University, pass in the Law of Property, Constitutional Law, the Law of Obligations, the Law of Wrongs (Civil and Criminal), and the Law of Procedure ; and must furnish to the Board the University's final certificate that he has passed in them.
- II. Notwithstanding the provisions of any rules of the court, each clerk heretofore articled to a practitioner, who shall, after examination, take or be entitled to take the Degree of Bachelor of Laws at the University, or who shall furnish the board with the said final certificate, shall thereupon be exempted from the operation of the 6th and 17th of the rules of the court of the third day of October, 1876.
- III. In addition to being furnished with such final certificate, the board may require every such clerk as is mentioned in the foregoing rules to answer, verbally or in writing under his hand, such questions touching his conduct and service during his clerkship as the board shall think fit to propose. Every such clerk (and each practitioner with whom he may have served any part of his clerkship) shall, if required by the Board, and if not pre-

vented by sufficient cause from complying with such requirement, attend the board, and give such explanations as the board may require touching the said conduct and service.

- IV. With respect to each such clerk as aforesaid, the board shall substitute for the report now required by the rules of the court a report in the subjoined form, or to the like effect :

REPORT.

To their Honors the Judges of the Supreme Court.

We, the examiners of the Supreme Court, hereby report :

1. That [*name of applicant*] has complied with all the conditions and passed all the examinations required of him by the Rules of this Honorable Court.
 2. That we believe him to be a fit and proper person to be admitted as a practitioner of this Honorable Court [*or as the case may be*].
- V. Each such clerk as aforesaid shall substitute for the affidavit, now required by the rules of the court, affidavit in the subjoined form, or in such other like form as may in each instance satisfy the board :

FORM OF AFFIDAVIT.

*In the Supreme Court
of South Australia.*

In the matter of A. B., gentleman.

I, A. B., of _____, in the province of South Australia, gentleman, make oath and say :

1. That I have furnished to the Board of Examiners of the Supreme Court all the certificates required of me by the rules of Court.
2. That I am the person named therein.
3. That I have caused to be duly posted and published the notices required of me by the rules of this Honorable Court, and have otherwise complied in all respects with the said rules so far as they regard me.

Sworn at _____ this _____ day of _____, in the year 18 _____, before me _____, a Commissioner for taking affidavits in the Supreme Court of South Australia.

- VI. No person shall be admitted to practise in the court until he shall have attained the age of twenty-one years.
- VII. In the foregoing rules the undermentioned phrases shall respectively bear the meanings hereinafter ascribed to them, namely, "the University" means the University of Adelaide; "the court" means the Supreme Court of the province of South Australia; "the board" means the Board of Examiners of the Supreme Court of the province of South Australia, or a quorum thereof. Any three of the members of the said board shall constitute a quorum thereof. "Practitioner" means practitioner of the Supreme Court of the province of South Australia.

VIII. These rules shall be forthwith published in the *Government Gazette*, and shall commence and take effect from and after the fifteenth day of March, in the year one thousand eight hundred and eighty-three.

Schedule referred to in the foregoing Rules and Orders :

The rules of the third day of October, 1876, numbered respectively—6, 7, 8, 9, 10, 11, 17, 18, and 22.*

Given under our hands and the Seal of the Supreme Court, at the Supreme Court House, at Adelaide, this twenty-fourth day of January, in the year of our Lord one thousand eight hundred and eighty-three.

(L.S.)

S. J. WAY, C. J.
JAS. P. BOUCAUT, J.
R. B. ANDREWS, J.

The following are two of the Supreme Court Rules of the 3rd October, 1876 (vide *Gazette* of the 5th October, 1876), No. 4, Part 1, "Articled Clerks" :—

4. Every person must before he enter into articles in the province of South Australia produce to the Board of Examiners a certificate of his having passed a Matriculation Examination in the University of Adelaide, or in some university recognized by the University of Adelaide, or of his having passed the preliminary or any intermediate examination which clerks articulated in England, Ireland, or Scotland, may for the time being be required to pass, and must lodge with the said Board a copy of the certificate of his having so passed.

No. 12, Subsection 2, Part 2, "Practitioners" :—

2. Persons having been articulated to some practitioner of the Supreme Court in South Australia for the full term of five years, and having served the full term of their clerkship: Provided that in the case of any person who shall before or during his service under articles have taken the Degree of Bachelor of Laws or of Arts in the University of Adelaide, or in some University recognized by the University of Adelaide, service under articles, for the full term of three years, shall be sufficient.

* Rules 6, 7, 8, 9, 10, 11, 17, and 18 refer to the Examinations and details connected therewith formerly required by the Supreme Court. Rule 22 refers to steps formerly required to be taken before being admitted to practice in the Supreme Court. For these Rules see "Law List" under the heading of "General Rules and Orders of the Supreme Court."

OF THE DEGREES OF BACHELOR OF MEDICINE
AND BACHELOR OF SURGERY.

REGULATIONS.

- I. No student shall be permitted to commence the Medical Course until he shall have completed his sixteenth year.
- II. Students before entering the Medical Course are required to pass the Senior Public Examination in all subjects specified by the General Medical Council of the United Kingdom*; but students who have already passed in the same subjects at the Junior Public Examination and have obtained credit in not less than two of them shall not be required to pass the Senior Public Examination. Students after passing either Examination are required to send their names to the Registrar of the University for registration as medical students by the General Medical Council of the United Kingdom.
- III. To obtain the degrees of Bachelor of Medicine and Bachelor of Surgery every candidate must complete five academical years of medical study, and pass the examination proper to each year.
- IV. The academical year in Medicine shall comprise two Sessions, the First Session commencing about the second week in March and ending about the third week in August, and the Second Session commencing about the second week in September and ending about the second week in December. During the First Session there shall be a vacation, beginning on the last day of the First Term and ending on the first day of the Second Term.
- V. The Examinations shall be held in the Second Session of each academical year except as specified in Regulation xxi.
- VI. No student shall in any academical year be credited with attendance at the University lectures on any subject unless he

* The following are the present requirements for the Preliminary Examination of Medical Students :—

1. English Language, including Grammar and Composition.
2. Latin, including Grammar, Translation from specified authors, and Translation of easy passages not taken from such authors.
3. Elements of Mathematics, comprising (a) Arithmetic, including Vulgar and Decimal Fractions; (b) Algebra, including Simple Equations; (c) Geometry, including the First Book of Euclid, with easy questions on the subject matter of the same.
4. Elementary Mechanics of Solids and Fluids, comprising the elements of Statics, Dynamics, and Hydrostatics.
5. One of the following optional subjects :—(a) Greek; (b) French; (c) German; (d) Italian; (e) any other Modern Language; (f) Logic; (g) Botany; (h) Zoology; (i) Elementary Chemistry.

shall have attended in each session of that year three-fourths of the lectures given in that subject, except in cases of illness or other sufficient cause to be allowed by the Council.

VII. During the First Academical Year students shall be required First Year

- (a) To attend a course of lectures on Anatomy.
- (b) To dissect during six months to the satisfaction of the Professor of Anatomy.
- (c) To attend a course of lectures on Physiology.
- (d) To perform practical biological and physiological work during such Academical Year to the satisfaction of the Lecturer on Physiology.
- (e) To attend a course of lectures on Chemistry.
- (f) To perform practical work in Inorganic Chemistry during three months to the satisfaction of the Professor of Chemistry.
- (g) To attend a course of lectures on Botany.
- (h) To attend lectures on the Elements of Heat, Electricity, Magnetism, Light, and Acoustics, unless he shall have already passed in these subjects at either the Junior or Senior Public Examination.

Every student at the time of forwarding to the Registrar the notice of his intention to attend the First Examination shall produce certificates of his having completed the above course of study.

VIII. At the First Examination every student shall satisfy the Examiners in each of the following subjects :—

1. *Elementary Anatomy and Dissections.*
2. *Elementary Biology and Physiology*, theoretical and practical.
3. *Inorganic Chemistry*, theoretical and practical.
4. *Botany.*
5. *Elements of Heat, Electricity, Magnetism, Light, and Acoustics*, unless he shall have already passed in these subjects at either the Junior or Senior Public Examination; provided that the marks for these subjects shall not be counted in arranging the class lists.

IX. During the Second Academical Year students shall be required Second Year.

- (a) To attend a course of lectures on Anatomy.
- (b) To dissect during six months to the satisfaction of the Professor of Anatomy.

- (c) To attend a course of lectures on Physiology.
- (d) To perform practical physiological work during such Academical Year to the satisfaction of the Lecturer on Physiology.
- (e) To attend a course of lectures on Organic Chemistry.
- (f) To perform practical work in Organic Chemistry and Toxicology during three months to the satisfaction of the Professor of Chemistry.
- (g) To attend a course of lectures on Comparative Anatomy.

Every student at the time of forwarding to the Registrar the notice of his intention to attend the Second Examination shall produce certificates of his having completed the above course of study, and these certificates shall be in addition to the certificates required for the First Examination.

X. At the Second Examination every student shall be required to satisfy the Examiners in each of the following subjects :—

1. *Anatomy*—General and descriptive, with Dissections.
2. *Physiology*—Including Practical Physiology, Histology, and Physiological Chemistry.
3. *Chemistry*—Organic Chemistry, theoretical and practical, with special reference to Physiology and Medicine. The chemistry of poisons, organic and inorganic, with special reference to their detection.
4. *Comparative Anatomy*.

Third Year.

XI. During the Third Academical Year students shall be required—

- (a) To attend a course of lectures on the Principles and Practice of Medicine and Therapeutics.
- (b) To attend a course of lectures on the Principles and Practice of Surgery.
- (c) To attend during the whole of the Academical Year a course of lectures on Clinical Surgery.
- (d) To attend a course of demonstrations on Surgical Anatomy.
- (e) To attend a course of demonstrations on Practical Surgery.
- (f) To attend a course of lectures on Pathology.
- (g) To attend a course of lectures on Materia Medica.

- (h) To receive instruction in Dentistry from some person approved by the Council.
- (i) To attend diligently *Post Mortem* Examinations at the Adelaide Hospital during six months.
- (j) To attend diligently during nine months the Medical and Surgical Practice of the Adelaide Hospital, both in the wards and out-patients' department.
- (k) To receive instruction in Practical Pharmacy during a period of three months from some person approved by the Council.

Every student at the time of forwarding to the Registrar the notice of his intention to attend the Third Examination shall produce certificates of his having completed the above course of study.

XII. At the Third Examination every student shall be required to satisfy the Examiners in each of the following subjects :—

1. *Principles and Practice of Medicine*, including *Therapeutics*.
2. *Principles and Practice of Surgery*.
3. *Surgical Anatomy*.
4. *Pathology*.
5. *Materia Medica*.

XIII. During the Fourth Academical Year students shall be required— Fourth Year.

- (a) To attend a course of lectures on the Principles and Practice of Medicine and Therapeutics.
- (b) To attend a course of lectures on the Principles and Practice of Surgery.
- (c) To attend during the whole of the Academical Year a course of lectures on Clinical Medicine.
- (d) To attend a course of lectures on Obstetrics.
- (e) To attend a course of lectures on Forensic Medicine.
- (f) To perform a course of Operative Surgery.
- (g) To attend diligently *Post Mortem* Examinations at the Adelaide Hospital for six months, during three of which he shall perform them himself.
- (h) To hold the office of Dresser and Surgical Clerk at the Adelaide Hospital during six months. Provided that the whole or any part of such six months may be served during the Third Year.

- (i) To attend diligently the medical and surgical practice of the Adelaide Hospital both in the wards and in the out-patients' department during nine months.

Every student at the time of forwarding to the Registrar the notice of his intention to attend the Fourth Examination shall produce certificates of his having completed the above course of study and practice, and these certificates shall be in addition to the certificates required for the Third Examination.

XIV. At the Fourth Examination every student shall be required to satisfy the Examiners in each of the following subjects:—

1. *Principles and Practice of Medicine*, including *Clinical Medicine* and *Therapeutics*.
2. *Principles and Practice of Surgery*, including *Clinical Surgery* and *Operative Surgery*.
3. *Forensic Medicine*.

Fifth Year

XV. During the Fifth Academical Year students shall be required

- (a) To attend, during two sessions, a course of lectures on Clinical Medicine.
- (b) To attend during the whole of the academical year a course of lectures on Clinical Surgery.
- (c) To attend a course of lectures on the Diseases peculiar to Women.
- (d) To attend a course of lectures on Ophthalmic Surgery.
- (e) To attend a course of lectures on Aural Surgery.
- (f) To attend a course of lectures on Lunacy, and to attend the practice of the Hospitals for the Insane during three months.
- (g) To attend diligently the Medical and Surgical Practice of the Adelaide Hospital, both in the wards and in the out-patients' department during nine months.
- * (h) To attend twenty cases of Midwifery. Provided that the whole or any part of such number may be attended during the last six months of the Fourth Year.
- (i) To hold the office of Medical Clerk at the Adelaide Hospital during six months. Provided that the whole or any part of such six months may be served during the Fourth Year.

* Vide Regulation XXV. infra.

- (j) To receive instruction in Vaccination from some legally qualified practitioner approved by the Council.

Every student at the time of forwarding to the Registrar the notice of his intention to attend the Fifth Examination shall produce certificates of his having completed the above course of study and practice, and these certificates shall be in addition to the certificates required for the Fourth Examination.

- XVI. At the Fifth Examination every student shall be required to satisfy the Examiners in each of the following subjects :—
1. *Medicine*, all branches.
 2. *Surgery*, all branches, including *Surgical Anatomy* and *Operative Surgery*.
 3. *Obstetrics* and *Diseases peculiar to Women*.
 4. *Elements of Hygiene*.
- XVII. In all cases in which certificates from the Adelaide Hospital are required by these Regulations, certificates from any other Hospital recognized by the Royal College of Surgeons of England will be accepted in lieu thereof.
- XVIII. The Course of Practical Anatomy shall only be open to students approved by the Council.
- XIX. Schedules defining the range of study shall be drawn up by the Faculty of Medicine, subject to the approval of the Council, and shall be published in the month of January in each year. The dates of the Examinations shall be fixed by the Council.
- XX. The names of the successful candidates at each examination in the Second Session shall be arranged in three classes, the first class in order of merit, and the second and third classes in alphabetical order.
- XXI. Candidates, who have been unsuccessful at the examination in the Second Session of any year, or who have been prevented by illness or other sufficient cause allowed by the Council from attending such examination, may present themselves at a Supplementary Examination to be held at the beginning of the next academical year.

At such Supplementary Examination candidates, who at the examination immediately preceding passed with credit in at least one-half of the required subjects, may, by permission of the examiners, present themselves in the subjects in which they have failed, and, upon passing in them, shall be held to have completed the preceding academical year.

XXII. Any student, who shall have passed in any subject of an examination, shall be entitled to a certificate showing in what subject he has passed.

Lectures and
Demonstration
Fees.

XXIII. The following shall be the Fees for each Course payable in advance :—

	£	s.	d.
Anatomy	6	6	0
Dissections	3	3	0
Physiology	6	6	0
Practical Biology and Physiology ...	3	3	0
Chemistry	3	3	0
Practical Chemistry	3	3	0
Botany	3	3	0
Comparative Anatomy	3	3	0
Materia Medica	3	3	0
Heat, Electricity, Magnetism, Light, and Acoustics ...	4	4	0
Principles and Practice of Medicine, including Therapeutics ...	5	5	0
Clinical Medicine	3	3	0
Principles and Practice of Surgery ...	5	5	0
Clinical Surgery	3	3	0
Surgical Anatomy	2	2	0
Practical Surgery	3	3	0
Operative Surgery	2	2	0
Pathology	4	4	0
Obstetrics	3	3	0
Diseases peculiar to Women	3	3	0
Forensic Medicine	3	3	0
Ophthalmic Surgery	3	3	0
Aural Surgery	1	1	0
Lunacy	1	1	0
Fee for each Ordinary Examination ...	5	5	0
Fee for each Supplementary Examination ...	7	10	0
Fee for a single subject	2	2	0
Fee for Certificate of having passed in one or more subjects of any examination in the course for the Degree of Bachelor of Medicine or Bachelor of Surgery ...	0	5	0
Fee for the Degree of Bachelor of Medicine ...	3	3	0
Fee for the Degrees of Bachelor of Medicine and Bachelor of Surgery	5	5	0

Examination
Certificate and
Degree Fees.

XXIV. The following Forms of Notice are prescribed :—

Form of Notice to be sent to the Registrar by Undergraduates of their intention to present themselves for Examination.

I, _____ an Undergraduate of this University
hereby give notice that, for the purpose of completing the _____ year of
the course for the degrees of Bachelor of Medicine and Bachelor of Surgery,
I intend to present myself at the Examination in the month of _____
18____, for examination in the undermentioned subjects, viz. :

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

I send herewith the prescribed fee of £ _____, and I enclose the certificates required by the Registrar.

(Signed).....

Dated this _____ day of 18 _____.

The Registrar,
University of Adelaide.

Form of Notice to be sent to the Registrar by Students not studying for Degrees of their intention to present themselves for Examination.

I, _____ a Student of this University, hereby give notice that I intend to present myself at the Examination in the month of 18 _____, for examination in the following subjects, viz.—

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

I send herewith the prescribed fee of £ _____, being _____ for each of the above subjects.

(Signed).....

Dated this _____ day of 18 _____.

The Registrar,
University of Adelaide.

XXV. Notwithstanding anything contained in the Regulations of the Degree of Bachelor of Medicine and Bachelor of Surgery it shall be lawful for the Council to admit to the Fifth Examination for the degree during the years 1889, 1890, and 1891, students who have attended not fewer than ten cases of midwifery.

The Regulations concerning the Degree of Bachelor of Medicine, allowed on the 17th day of November, 1886, are hereby repealed.

Allowed : 18th December, 1889.

SCHEDULES DRAWN UP UNDER No. XIX. OF THE FOREGOING REGULATIONS.

DETAILS OF SUBJECTS FOR THE ORDINARY M.B. AND Ch.B. EXAMINATION IN NOVEMBER 1890.

FIRST YEAR'S COURSE.

ELEMENTARY ANATOMY.

I. Descriptive Anatomy.

Bones, Joints, and Muscles, illustrated by osteological specimens and recent dissections.

Text-books :—

Anatomy, Descriptive and Surgical : Gray ; or

Elements of Anatomy : Quain.

Human Osteology : Holden, may also be consulted.

11. Practical Anatomy.

Daily attendance in the Dissecting Room from 9 to 5, excepting at lecture hours and on Saturday afternoons.

Text-books :—

Demonstrations of Anatomy: Ellis; or
Practical Anatomy: Heath.

ELEMENTARY BIOLOGY AND PHYSIOLOGY.

The instruction in these subjects will include :—

- (i.) A course of elementary lectures on human physiology, and
- (ii.) A course of demonstrations in practical biology.

I. Elementary Physiology.

1. The General Structure, Composition, and Functions of the Tissues of the Human Body.
2. The Nutrition of the Body, including Circulation, Respiration, Alimentation, Nutrition of the Tissues, Excretion, together with the general structure and functions of the organs concerned.
3. Animal Heat.

Text-books recommended :—

Handbook of Physiology: Kirkes; or
Manual of Physiology: Yeo.

II. Practical Biology and Physiology.

1. The fundamental facts and laws of the morphology, histology, physiology, and life-history of plants, as illustrated by the following types :—
Yeast Plant, Bacteria, Protococcus, Mucor, Penicillium, Spirogyra, Nitella, the Bracken Fern, and the Bean plant.
2. The fundamental facts of animal morphology and physiology as illustrated by the following types :—
Amoeba, Vorticella, Hydra, Freshwater-mussel, Crayfish, Frog.
3. The histological characters of the blood, epidermal and connective tissues, cartilage, bone, muscle and nerve, in Vertebrata.

Text-books recommended :—

Practical Biology: Huxley and Martin.
The Frog, an Introduction to Anatomy and Histology: Milnes Marshall.
Elements of Histology: Klein.

ELEMENTARY INORGANIC CHEMISTRY.**I. Inorganic Chemistry.**

The non-metallic elements and their more commonly known compounds.

The following metals and their more commonly known compounds :—

Potassium, Sodium, Silver.
Calcium, Strontium, Barium.
Aluminium.
Magnesium. Zinc. Cadmium.
Lead.
Manganese. Iron. Cobalt. Nickel. Chromium.
Bismuth. Copper. Mercury. Gold. Tin.
Platinum.

Spectrum analysis, the elements of chemical theory, the atomic theory and cognate subjects, and the laws of electrolysis.

II. *Practical Chemistry.*

Simple Inorganic Qualitative Analysis.

Text-books recommended :—

Introduction to the Study of Chemistry : Remsen ; or
Elementary Chemistry : Wilson.

BOTANY.

The general structure and physiology of a flowering plant :—

Elementary Tissues, their Constituents, Contents, and mode of
Development.

General characters and functions of the Root, Stem, Leaves, and
Floral Organs.

Reproduction, Fertilization, Fruit, Seed, and Germination.

Botanical Characters of the Natural Orders :

Ranunculaceæ, Cruciferae, Caryophyllaceæ, Malvaceæ, Rutaceæ,
Leguminosæ, Myrtaceæ, Rosaceæ, Umbelliferae, Compositæ, Gooden-
oviae, Campanulaceæ, Epacridæ, Boraginæ, Scrophulariaceæ,
Labiatæ, Solanaceæ, Amarantaceæ, Chenopodiaceæ, Proteaceæ,
Coniferae, Orchidaceæ, Amaryllidaceæ, Liliaceæ, Cyperaceæ, Graminæ,
and Filices.

Practical Examination.

Candidates must be prepared to describe in technical language such plants
or parts of plants as may be placed before them, and to classify specimens
illustrative of any of the Natural Orders above enumerated.

Text-books recommended :—

Class Book : Balfour ; or

Manual of Botany : Balfour.

Handbook of South Australian Plants : Tate.

ELEMENTARY PHYSICS.

The first principles of Mechanics, Hydrostatics, Heat, Light, Sound,
Electricity and Magnetism.

SECOND YEAR'S COURSE.

ANATOMY.

1. *Anatomy.*

This Course includes the subjects prescribed for the First Year, and in
addition—

Description of the Vascular and Nervous Systems, Organs of special sense and
other viscera.

Text-books the same as for the first year.

2. *Practical Anatomy.*

Attendance and Text-books as in first year.

PHYSIOLOGY.

This Course includes the subjects prescribed for the First Year ;
and in addition—

4. The special physiology of the Contractile Tissues, the structure and
physiology of Sense Organs, and of the Nervous System.

5. Voice and Speech.
6. The histology of the Tissues and Organs of the Body.
7. Outlines of Reproduction and Development.

Text-books the same as for the first year. Foster's Text-book of Physiology should also be consulted.

Practical Examination.

Each candidate must be prepared (1) to examine and describe microscopical specimens of animal tissues and organs. (2) To make microscopical preparations of animal tissues and organs. (3) To prove his practical acquaintance with the chemistry of albumen and its allies, milk, the digestive juices and their actions, blood, urine, glycogen.

Also to show his practical acquaintance with the most important apparatus used in studying the Physiology of muscle, nerve, the circulatory and respiratory system, and the organs of special sense.

Text-books recommended :

Elements of Histology : Klein.

Elements of Physiological Physics : McGregor Robertson.

A course of Practical Physiology : Foster and Langley.

CHEMISTRY.

Organic Chemistry.

Law of Substitution. Compound Radicals.

Homologous Series. Principles of Ultimate Analysis.

Chemical History of the Cyanogen Group. Cyanogen. Hydrocyanic Acid.

Cyanic Acid and Urea. Sulphocyanic Acid. Uric Acid.

Amylaceous and Saccharine substances.

Fermentation. Alcohol, Wine, Beer, &c.

Homologues of Alcohol. Ethers, simple and mixed. Oxidation of Alcohol. Aldehyde and Acetic Acid and their homologues.

Glycol and Oxalic Acid and their homologues.

Glycerine. Fatty and oily bodies. Saponification.

Principle vegetable acids.

Ammonia and its derivatives. Ammonium and ammoniacal salts.

Chief natural organic bases.

Chief constituents of the vegetable and animal organisms. Blood, Milk, Bile, Urine, &c. Decay. Putrefaction. Destructive distillation. Benzene, and some of its chief derivatives, especially Phenol, Salicylic Acid, Nitrobenzenes, Aniline, and allied substances.

Practical Chemistry.

Qualitative analysis of mixtures containing not more than two acids and two bases, and not more than one organic acid and one organic base, the organic substances to be selected from the following list :—

Oxalates, Acetates, Benzoates, Succinates, Tartrates, Urates. Meconates, Gallates, Tannates, Cyanides, Double Cyanides, Alcohol, Starch, Cane-sugar, Grape-sugar, Urea, Morphia, Quinine, Strychnine.

Students may also be required to determine sugar or urea in urine.

Text-books recommended :—

Organic Chemistry : Remsen.

Organic Chemistry : Fownes, revised by Watts.

COMPARATIVE ANATOMY.

Comparative Anatomy of Vertebrates with Demonstrations on dead animals.

Text-book:—

Comparative Anatomy of Vertebrates: Mivart.

MATERIA MEDICA.

The substances mentioned in the British Pharmacopœia will be considered as regards their names and synonyms; their history, and source whence obtained; their characteristics, chemical and physical; their adulterations and the detection of the same; their active principles, with the poisonous doses (if any); their general physiological and antagonistic action; their officinal preparations, with the proportionate amount of active ingredient in each; and the use and application of the volumetric solutions.

Text-book recommended:

Materia Medica and Therapeutics: Garrod (11th edit. 1885).

THIRD YEAR'S COURSE.

PRINCIPLES AND PRACTICE OF MEDICINE AND THERAPEUTICS.

Elementary General Pathology.

Elementary General Therapeutics.

Relation of Bacteria to Disease.

Specific Febrile Diseases.

Diseases of the Organs of Respiration.

Diseases of the Organs of Circulation.

Diseases of the Urinary Organs.

Diseases of the Alimentary Canal.

Diseases of the Liver and the Pancreas.

Diseases of the Peritoneum and Mesenteric Glands.

Diseases of the Thyroid; Supra-renal Bodies; Spleen; Lymphatics; Blood.

Diseases of the Organs of Locomotion

Diseases of the Nervous System.

Text-books recommended:

The Theory and Practice of Medicine: Bristowe.

The Theory and Practice of Medicine: Roberts.

Manual of Pathology: Coats, or

Manual of Pathological Anatomy, by Jones and Sieveking—latest edition edited by Payne.

PRINCIPLES AND PRACTICE OF SURGERY.

General Principles of Surgical Diagnosis.

Inflammation, Erysipelas, Septicæmia, Pyæmia.

Fractures, Dislocations.

Antiseptic Treatment of Wounds.

Injuries and Diseases of Joints.

Veneral Diseases.

Injuries and Diseases of Bladder, Urethra, and Prostate.

Text-books:

Practice of Surgery: Bryant.

Science and Art of Surgery: Erichsen.

Surgery, its principles and practice: Holmes.

The instruction in Practical Surgery will include—
The Application of Splints, Bandages, &c.

Text-books :

Manual of Minor Surgery and Bandaging : Heath.
Surgical Handicraft : Pye.
The Essentials of Bandaging : Berkeley Hill.

SURGICAL ANATOMY.

- 1) Regional Anatomy as applied to Surgery, and (2) surface Anatomy as applied to the Fine Arts.

Text-book :

Manual of Surgical Applied Anatomy : Treves.

PATHOLOGICAL ANATOMY.

1. Attendance in the dead house and *post mortem* examinations.

Text-book :

Post Mortem Examinations : Virchow.

2. Microscopical demonstrations of pathological specimens.

Text-books :

Manual of Practical Pathology : Woodhead.
Elements of Surgical Pathology : Pepper.

MATERIA MEDICA.

The substances mentioned in the British Pharmacopœia will be considered as regards their names and synonyms ; their history, and source when obtained ; their characteristics, chemical and physical ; their adulterations and the detection of the same ; their active principles, with the poisonous doses (if any) ; their general physiological and antagonistic action ; their officinal preparations, with the proportionate amount of active ingredient in each ; and the use and application of the volumetric solutions.

Text-book recommended :

Materia-Medica and Therapeutics : Garrod (11th edit. 1885).

FOURTH YEAR'S COURSE.

PRINCIPLES AND PRACTICE OF MEDICINE.

For synopsis see Third Year's Course.

PRINCIPLES AND PRACTICE OF SURGERY.

The subjects of the Third Year and in addition—

Tumours.
Shock, Coma, and Traumatic Delirium.
Hernia.
Aneurism.
Injuries and Diseases of Special Regions.
Plastic and Orthopædic Surgery.

Text-books the same as for the Third Year.

OPERATIVE SURGERY.

Operations on the dead body.

Text-book:

Manual of Operative Surgery : Stimson.

FORENSIC MEDICINE.

1. Medical Evidence in general, and as bearing upon cases that may form the subject of a criminal trial, civil action, or coroner's inquest.

Note.—In addition to the written paper there will be a practical examination, which will not however include the practical physiology or the practical chemistry incidental to this Course.

Text-book :

Forensic Medicine (last edition) : Guy & Ferrier.

OBSTETRICS.

Anatomy and Physiology of the Female Organs of Generation.

Physiology and Pathology of Pregnancy.

Natural and Difficult Labour.

Pathology and Management of the Puerperal State.

Text-books :

A Manual of Midwifery : Galabin, or
Science and Practice of Midwifery : Playfair.

FIFTH YEAR'S COURSE.

DISEASES PECULIAR TO WOMEN.

Diseases of the female organs of generation.

Text-books :

The Student's Guide to the Diseases of Women : Galabin, or
The Principles and Practice of Gynæcology : Emmet.

OPHTHALMIC SURGERY.

Injuries of the Eye and its appendages.

Diseases of the Eyelids, Conjunctiva, and Lachrymal apparatus.

Diseases of the Eyeball including Glaucoma, Amblyopia, and functional Disorders of Vision.

Refraction.

Affections of the Ocular Muscles.

Colour Vision and its defects.

Text-book :

The Student's Guide to Diseases of the Eye (last edition) : Nettleship.

AURAL SURGERY.

Anatomy and Physiology of the Ear shortly considered.

Injuries and diseases of the auricle.

Diseases of External Auditory Canal, including foreign bodies in the Ear.

Diseases of the Membrana Tympani and Tympanum and their consequences.

Diseases of Naso-Pharynx and Eustachian Tube.

Diseases of the Inner Ear.

Text-book :

A guide to the Study of Ear-Disease : P. McBride (W. & A. K. Johnston, Edinburgh).

The following works may also be consulted :

Text-book of Diseases of the Ear : Politzer.

Treatise on Diseases of the Ear : De Roosa.

Treatise on the Ear : Burnett.

LUNACY.

The Physiology of Mind and its relations to Mental Disease.
Insanity, its diagnosis, varieties, causes, treatment, pathology, and the procedure for placing persons of unsound mind under care and treatment.

Text-book :

Clinical Lectures on Mental diseases : Clouston.

ELEMENTS OF HYGIENE.

Habitations.—Drainage of houses, removal of excreta. *Food.*—General principles of diet ; quality, choice, and quantity of food. *Water.*—Quantity and supply. Examination of for hygienic purposes, contaminations, purification of. *Air.*—Examination of—impurities of—Ventilation. *Soil.*—Examination of conditions affecting health. Prevention of specific diseases, disinfection and deodorization, vital statistics, climate.

The Health, Quarantine, and Vaccination Acts in force in South Australia.

Text-books recommended :

Hygiene as applied to Public Health : Willoughby, or
Handbook of Hygiene and Sanitary Science : Wilson.
Manual of Practical Hygiene : Parkes, may also be consulted.

RULES FOR THE ADMISSION OF MEDICAL STUDENTS TO THE PRACTICE OF THE ADELAIDE HOSPITAL.

The rules for the admission of students to the practice of the Adelaide Hospital, of which copy is annexed, are published in the Calendar for convenience of reference :—

- A—I. That medical students of the University of Adelaide be admitted as pupils to the practice of the Hospital under the conditions hereinafter mentioned.
- II. Pupils may attend, according to the subject for which they have entered, the practice of the Hospital between the hours of 8.30 a.m. and 4 p.m. (including attendance on the morning visits of the Resident Medical Officer) ; at no other time will the pupils be allowed in the Wards except by special permission of some Physician or Surgeon.
- III. No medical or surgical pupil shall publish the report of any case without the written permission of the Physician or the Surgeon under whose care the patient has been.
- IV. No pupil may introduce visitors into the Hospital without permission from some member of the Honorary Staff or from one of the Resident Medical Officers.
- V. Pupils entering for dispensary practice shall be under the immediate control of the Dispenser, and, in his absence, of the Assistant Dispenser, who shall be answerable to the Board for their good conduct.
- VI. Every pupil shall conduct himself with propriety, and discharge with zeal and assiduity the duties assigned to him, and pay for or replace any article and make good any loss sustained by his negligence.
- VII. If any pupil infringe any rule of the Hospital, or otherwise misconduct himself, he shall be subject to dismissal by the Board, and shall, on dismissal, forfeit all payments which he may have made, and all rights accruing therefrom.
- VIII. The members of the Honorary Staff of Physicians and Surgeons will give clinical instruction on the following terms, viz.—
 - For the medical practice of the Hospital, for each pupil, £5 5s. per annum.
 - For the surgical practice of the Hospital, for each pupil, £5 5s. per annum.

(These fees to include the appointment of Clinical Clerk and Dresser).

For each six months' instruction in the Post Mortem Room, £2 2s.

For three months' instruction by the Dispenser in Practical Pharmacy, £2 2s.

A fee of £1 1s. shall be paid for the use of the Medical Library, and no books shall be removed from the Hospital without special permission of the Board.

Each student commencing attendance on the clinical practice of the Hospital shall be required to pay an entrance fee of £5 5s. All fees to be paid to the Secretary of the Hospital.

- IX. Every Physician shall have one or more Clinical Clerks, and every Surgeon shall have one or more Dressers, and all such Clerks and Dressers shall be appointed by the Board on the recommendation of the Honorary Staff of the Hospital.
- X. Subject to these rules, every Clinical Clerk and every Dresser shall hold office for six months, but shall, in the absence of another candidate, be eligible for re-appointment.
- XI. Every Clinical Clerk and every Dresser shall always accompany in his visits to the Wards the Physician or the Surgeon to whom he is attached.
- XII. The Clinical Clerk and Dresser of the receiving Physician or Surgeon shall, except when he is required to attend lectures at the University, be in attendance each day during the receiving week of such Physician and Surgeon.
- XIII. Every Clinical Clerk and every Dresser shall attend daily to assist the Resident Medical Officers in their duties.
- XIV. The following shall be the duties of Clinical Clerks and of Dressers :—They shall, under the supervision of the Resident Medical Staff, take a correct history of each case on the day of admission or as soon after as possible, and enter the same in the Case Book ; they shall keep a correct report of each case and of the treatment thereof and of its results until the patient's discharge or death, and enter it from day to day in their Case Book.
- XV. No student shall visit any patient in the Ovariectomy Cottage, or any case that has undergone a major operation, or any case of acute illness, without permission of the Physician or Surgeon.

- XVI. No student shall attend the practice of the Surgical Wards during the period that he is himself performing post mortem examinations.
- XVII. No Clinical Clerk or Dresser shall be excused for absenting himself at the appointed hour of attendance in the morning, unless he receive permission to do so from the Physician or Surgeon to whom he is attached.
- XVIII. Certificates to Clinical Clerks and Dressers shall be signed by their respective Physicians and Surgeons, and afterwards by the Chairman of the Board.
- B—I. The foregoing rules shall apply to all students unconnected with the University of Adelaide who may wish to be admitted as pupils to the practice of the Adelaide Hospital.
- II. That all pupils be subject to such other rules and regulations as may be adopted from time to time by the Board of Management.

April 15th, 1887.

OF THE DEGREE OF DOCTOR OF MEDICINE.
REGULATIONS.

- I. The Examination for the Degree of Doctor of Medicine shall be held once in each year, during the month of November.
- II. No candidate shall be admitted to this Examination, unless he shall have produced certificates to the following effect :—
 1. Of having been admitted to the Degrees of Bachelor of Medicine and Bachelor of Surgery in this University ; or of having been admitted to the Degree of Bachelor of Medicine *ad eundem gradum*.
 2. Of having, subsequently to admission to the Degree of Bachelor of Medicine in this University or in any other University whose degrees are recognised by the University of Adelaide,
 - (a) Attended to Clinical or Practical Medicine, during two years, in a hospital or medical institution recognised by this University ;
 - (b) Or, attended to Clinical or Practical Medicine, during one year, in a hospital or medical institution recognised by this University, and of having been engaged, during three years, in the practice of his profession.
 - (c) Or, of having been engaged, during five years, in the practice of his profession.

Candidates who shall have passed in the First Class at the Examination for the Degree of Bachelor of Medicine and Bachelor of Surgery shall be exempted from one year's attendance on Clinical or Practical Medicine in a recognised institution, or from two years' practice of their profession. At least one-half of the time specified for Clinical or Practical Medicine must be devoted to Medicine as distinguished from Surgery.

- III.—These certificates must be forwarded to the Registrar at least one month before the commencement of the Examination.
- IV.—The Examination shall be conducted by means of printed papers, *vivâ voce* interrogation, practical demonstrations, and reports of cases in a hospital.
- V.—Candidates shall be required to satisfy the Examiners in the following subjects :—

1. *Theory and Practice of Medicine*, including—
 - (a) *Pathology*,

(b) *Therapeutics*, and

(c) *Hygiene*.

2. *Mental Physiology and Lunacy*.

3. *Obstetrics and Diseases of Women*.

4. *The History of Medicine*.

It shall be optional for Candidates to substitute for the examination in the History of Medicine a written Thesis relating to some one of the subjects included in the medical curriculum. The subject of such Thesis shall be first approved by the Faculty of Medicine and the Thesis shall be forwarded to the Registrar of the University at least two weeks before the examination for the Degree of Doctor of Medicine.

VI.—The names of successful candidates shall be arranged in order of merit, and in one class.

VII. A notice in the subjoined form shall be sent by each candidate to the Registrar, not less than one month before the date of the Examination :—

I, _____ a Bachelor of Medicine of the University of Adelaide, having obtained that Degree on the day of _____, in the year 18____, intend to present myself at the next Examination for the Degree of Doctor of Medicine.

I send herewith the prescribed fee of £10.

Signature of Candidate.....
Postal Address.....

To the Registrar,
University of Adelaide.

VIII. The undermentioned fees shall be paid in advance :—

Examination fee	...	...	...	£10	0	0
For the Degree of Doctor of Medicine				10	0	0

Allowed the 18th December, 1889.

OF THE DEGREE OF MASTER OF SURGERY.
REGULATIONS.

I.—The Examination for the Degree of Master of Surgery shall be held once in each year, during the month of November.

II.—No Candidate shall be admitted to the Examination unless he shall have produced Certificates to the following effect :—

1. Of having been admitted to the Degrees of Bachelor of Medicine and Bachelor of Surgery in this University, or of having been admitted to the Degree of Bachelor of Medicine *ad eundem gradum*.
2. Of having, subsequently to admission to the Degree of Bachelor of Medicine in this University, or in any other University whose degrees are recognised by the University of Adelaide,
 - (a) Attended to Clinical or Practical Surgery, during two years, in a hospital or medical institution recognised by this University;
 - (b) Or, attended to Clinical or Practical Surgery, during one year, in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice of his profession;
 - (c) Or, of having been engaged, during five years in the practice of his profession.

Candidates who shall have passed in the First Class at the Examination for the Degree of Bachelor of Medicine and Bachelor of Surgery shall be exempted from one year's attendance on Clinical or Practical Surgery in a recognised institution, or from two years' practice of their profession. At least one-half of the time specified for Clinical or Practical Surgery must be devoted to Surgery as distinguished from Medicine.

III.—These Certificates must be forwarded to the Registrar at least one month before the commencement of the Examination.

IV.—The Examination shall be conducted by means of printed papers, *vivâ voce* interrogation, practical demonstrations, and reports of cases in a hospital.

V.—Candidates shall be required to satisfy the Examiners in the following subjects :—

*Surgery, all branches, including Surgical Anatomy
Surgical Pathology, and Operative Surgery.*

Candidates will also be required—

- (1) *To write commentaries on surgical cases.*
- (2) *To write a short extempore essay on some surgical topic.*
- (3) *To examine and report on cases of surgical patients in the wards of a hospital.*

VI.—The names of the successful candidates shall be arranged in order of merit, and in one Class.

VII. A notice in the subjoined form shall be sent by each candidate to the Registrar, not less than one month before the date of the Examination :—

I, _____ a Bachelor of Medicine of the University of Adelaide, having obtained that Degree on the day of _____, in the year 18____, intend to present myself at the next Examination for the Degree of Master of Surgery.

I send herewith the prescribed fee of £10.

Signature of Candidate.....
 Postal Address.....

To the Registrar,
University of Adelaide.

VIII. The undermentioned fees shall be paid in advance :—

Examination fee	£10	0	0
Fee for the Degree of Master of Surgery	5	0	0

Allowed the 18th December, 1889.

OF THE DEGREE OF BACHELOR OF MUSIC.*
REGULATIONS.

- I. Students who satisfy the Professors and Lecturers of the School of Music that they have sufficient knowledge to enable them to enter upon the First Year's Course may be enrolled as Matriculated Students in Music ; but all Students in Music before they can take the Degree of Bachelor of Music must either have passed the Senior Public Examination, or must produce certificates of having passed in the following subjects of the Senior Public Examination.
 1. *In English.*
 2. *In one other Language.*
 3. *In one subject of Division B.*
- II. To obtain the Degree of Bachelor of Music each candidate must complete three academical years of study, and pass the Examination proper to each year ; and must also compose an Exercise, to be approved by the Examiners.
- III. To complete an academical year of study a Candidate must attend the courses of Lectures delivered on each of the subjects specified for the Examination in that year, but the separate courses of Lectures need not all be attended in one and the same year, nor need the Examination be passed in the same academical year in which the Lectures have been attended.
- IV. No Student shall in any term be credited with attendance at the University Lectures and the completion of any academic term of study in any subject, unless he shall have attended during that term three-fourths of the Lectures given in that subject, except in case of illness or other sufficient cause to be allowed by the Council.
- V. At the first examination for the Degree of Bachelor of Music every Candidate shall be required to satisfy the Examiners in each of the following subjects—
 1. { *The Elements of Music.*
Harmony.
 2. *Counterpoint.*

* As the Chair of Music is not supported by endowment, the University does not guarantee the continuance of Courses of Lectures in Music.

VI. At the second Examination for the Degree of Bachelor of Music every candidate shall be required to satisfy the Examiners in each of the following subjects—

1. *Acoustics.*
2. *Harmony.*
3. { *Counterpoint.*
Double Counterpoint, Canon, and Fugue.

VII. At the Third Examination for the Degree of Bachelor of Music every Candidate shall be required to satisfy the Examiners in each of the following subjects—

1. *Harmony.*
2. *Counterpoint, Canon, and Fugue.*
3. *Instrumentation ; Form in Composition.*
4. *Playing from a figured bass, and from vocal and orchestral scores.*

VIII. The Examinations in all the above subjects will be partly by printed questions and partly *vivâ voce.*

IX. After passing the Third Examination, and before receiving his Degree, each candidate must send to the Registrar a Musical Exercise composed by himself for the occasion, of such length as to occupy not less than twenty minutes in performance, and fulfilling the following conditions—

- (a.) It must be a Vocal Composition to any words the writer may select.
- (b.) It must contain real five-part vocal Counterpoint, with specimens of imitation, Canon and Fugue.
- (c.) It must have accompaniments for a quintett String band, with or without an Organ part.

The Candidate will be required to make a written declaration that the Exercise is entirely his own unaided Composition. Such Exercise must reach the Registrar before the 30th of June in the year in which the candidate proposes to take his degree. No Exercise which has been rejected shall be used either in whole or part for the Exercise on any subsequent occasion, except by special consent of the Examiners in Music. After the Exercise has been approved by the Examiners the Candidate must deposit a fair and complete copy of such Exercise in the University Library.

X. Schedules defining, as far as may be necessary, the scope of the Examinations in the above-mentioned subjects shall be drawn

up by the Board of Musical Studies, subject to the approval of the Council, and shall be published not later than the month of January in each year.

- XI. The names of the successful Candidates at each Examination shall be arranged in three classes in alphabetical order in each.
- XII. The names of all other Students passing in any of the above-mentioned subjects shall be arranged in alphabetical order in lists, which shall indicate the subjects, in which each Student has passed.
- XIII. A Student who shall pass in any subject shall be entitled to a Certificate to that effect.
- XIV. The following fees shall be payable in advance :—

Entrance fee for Students not intending to graduate in Music, but intending to attend Lectures or present themselves for Examination in Music ...	£0 10 6
Fees payable in each term by every Student in Music	£2 2 0

Examination fees—

Fee for each subject specified in each candidate's notice for the Ordinary Examination in Music...	£0 15 0
Fee for Certificate of having passed in one or more subjects of any Examination in the course for the Degree of Bachelor of Music ...	£0 5 0
Fee payable by each Student to accompany his Exercise under Section IX.	£5 5 0
Fee on taking the Degree of Bachelor of Music ...	£3 3 0

The following Forms of Notice are prescribed :—

Form of Notice to be sent to the Registrar by Undergraduates of their intention to present themselves for Examination.

I, _____ an Undergraduate of the University, hereby give notice that, for the purpose of completing the _____ year of the course for the Degree of Bachelor of Music, I intend to present myself at the Ordinary Examination in the _____ term of 18____, for examination in the undermentioned subjects, viz. :

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

I send herewith the prescribed fee of £

(Signed).....

Dated this _____ day of _____
The Registrar,
University of Adelaide.

18 .

Form of Notice to be sent to the Registrar by Students not studying for Degrees, of their intention to present themselves for Examination.

I, _____ a Student of this University, hereby give notice that I intend to present myself at the Ordinary Examination in the term of 18 _____, for examination in the following subjects, viz. :

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

I send herewith the prescribed fee of £ _____

(Signed)
18 _____

Dated this _____ day of _____
The Registrar,
University of Adelaide.

The Regulations concerning the Degree of Bachelor of Music allowed on the 17th November, 1886, are hereby repealed.

Allowed the 18th of December, 1886.

SCHEDULES DRAWN UP UNDER No. X. OF THE FOREGOING REGULATIONS.

DETAIL OF SUBJECTS FOR THE ORDINARY EXAMINATION IN NOVEMBER, 1890.

FIRST YEAR'S COURSE.

ELEMENTS OF MUSIC.

Notes, Rests, Clefs, Intervals, Scales, Time, Abbreviations, and other signs.

Text-books suggested—

Davenport's "Elements of Music," and Banister's "Music."

HARMONY.

Common Chords, Chords of the Dominant 7th, Dominant 9th, Dominant 11th, and 13th, Suspensions, Chords of the Augmented 6th, Cadences, Passing Notes, Sequences, Modulation, Harmonizing Melodies.

Text-books—

Stainer's Harmony Primer; Banister's "Music."

COUNTERPOINT.

Single Counterpoint; all species in two and three parts.

Text-books—

Banister's "Music."

SECOND YEAR'S COURSE.

ACOUSTICS.

Sensation and external cause of Sound. Mode of its transmission. Nature of wave-motion in general. Application of the wave-theory to

Sound. Elements of a musical sound. Loudness and extent of vibration. Pitch and rapidity of vibration. Measures of absolute and of relative pitch. Resonance. Analysis of compound sounds. Helmholtz's theory of musical quality. Motion of sounding strings. The pianoforte and other stringed instruments. Motion of sounding air-columns. Flute and reed stops of the organ. Orchestral wind instruments. The human voice. Interference. Beats. Helmholtz's theory of consonance and dissonance. Combination-tones. Consonant chords. Construction of the musical scale. Exact and tempered intonation. Equal temperament.

Text-book—

Tyndall's "Sound."

HARMONY, up to four parts, as contained in Professor Macfarren's "Rudiments of Harmony."

COUNTERPOINT, in four parts, as contained in the same author's "Counterpoint."

DOUBLE COUNTERPOINT, CANON, AND FUGUE in two parts.

Text-books—

Higgs' Primer on "Fugue" and Banister's "Music."

Works of reference recommended—

"Six Lectures on Harmony," Macfarren; Ellis's translation of Helmholtz's "Die Lehre von den Tonempfindungen."

THIRD YEAR'S COURSE.

HARMONY AND COUNTERPOINT, each in not more than five parts.

CANON AND FUGUE, in not more than four parts.

FORM.

The various forms employed in classical composition.

INSTRUMENTATION.

A knowledge of the compass, capabilities, and quality of tone of the different instruments employed in a modern orchestra.

Note.—Candidates will also be examined in some Classical composition with regard to Harmony, Form, and Instrumentation.

Text-book—

Prout's "Instrumentation."

Books of reference—

Berlioz's "Instrumentation."

Ouseley's "Form."

Richter's "Fugue."

OF PUBLIC EXAMINATIONS IN MUSIC.

REGULATIONS.

- I. Public Examinations in the Theory and Practice of Music shall be held annually.
- II. Both male and female candidates shall be eligible for examination and the Regulations shall be read accordingly.
- III. Schedules defining as far as may be necessary the range of the Examinations shall be published in the month of January in, each year.

THEORY OF MUSIC.

- IV. Junior and Senior Examinations in the Theory of Music shall be held annually.
- V. Candidates shall be admitted to either Examination without restriction as to age.
- VI. At the Junior Examination every candidate shall be required to satisfy the Examiners in
 - Notes, Staves, Clefs, Keys, Intervals, Time, Transposition, Common Chords, and the knowledge of the technical terms used in Music.*
- VII. At the Senior Examination every candidate shall be required to satisfy the Examiners in
 1. *Harmony.*
 2. *Counterpoint.*
 3. *History of Music.*
- VIII. The Examination shall be held on or about the first Friday in the month of November in each year.
- IX. The following fees shall be paid at the time of giving notice to attend :

Junior Examination	...	...	...	...	£1	1	0
Senior Examination	...	...	...	...	1	11	6

In no case will the fee be returned ; but if, not less than seven days before the examination, a candidate shall notify to the Registrar his intention to withdraw, the fee shall stand to his credit for a future examination.
- X. Candidates must give notice of their intention to present themselves for examination on or before the first day of October.

- XI. The names of successful candidates shall be arranged in two classes, in alphabetical order in each.
- XII. The list of successful candidates shall be posted at the University and shall state the last place of education from which each candidate comes.
- XIII. Certificates shall be given to the successful candidates stating in which class they have been placed.

PRACTICE OF MUSIC.

- XIV. Junior and Senior Examinations in the Practice of Music shall be held annually.
- XV. Candidates shall be admitted to either examination without restriction as to age.
- XVI. Candidates shall be required to satisfy the Examiners in one or more of the following subjects :—
1. *Pianoforte Playing.*
 2. *Organ Playing.*
 3. *Solo Singing.*
 4. *Playing on any Orchestral Instrument.*
- XVII. The Examinations shall be held during the month of November.
- XVIII. The following fees shall be paid at the time of giving notice to attend :—

For candidates presenting themselves for examination at Adelaide or elsewhere, for each subject—

Junior Examination	...	...	...	£1	1	0
Senior Examination	...	...	...	2	2	0

And in no case will the fee be returned.

- XIX. Candidates must give notice of their intention to present themselves for examination at least one calendar month prior to the date fixed for the examination.
- XX. The names of successful candidates shall be arranged in alphabetical order in two classes in each of the above subjects.
- XXI. The list of successful Candidates shall be posted at the University, and shall state the subjects in which each Candidate has passed, and also the last place of education from which he comes.

XXII. Certificates shall be given to the successful Candidates stating the subjects in which they have passed and the class in which they have been placed.

LOCAL EXAMINATIONS.

XXIII. The Junior and Senior Public Examinations in the Theory and Practice of Music may be held in other places than the City of Adelaide.

XXIV. Such Local Examinations shall be held only under the supervision of persons appointed by the Council.

XXV. No such Examination shall be held unless a sum sufficient to meet all expenses, including the Statutory Fees, be lodged with the Registrar at least one calendar month prior to the date fixed for the Examination.

Allowed 18th December, 1886.

SCHEDULES DRAWN UP UNDER NO. III. OF THE FOREGOING REGULATIONS.

LOCAL EXAMINATIONS IN THE THEORY OF MUSIC.
JUNIOR.

The papers set in the Junior Division will be designed to test the Candidates knowledge of:—

Staves, clefs, intervals, scales, key-signatures, time, accent, embellishments, technical terms used in music, transposition, formation of uninverted common chords.

Text books suggested—

Davenport's "Elements of Music," and Stainer's Harmony Primer, Chaps. I. to IV. inclusive.

SENIOR.

Senior candidates will be expected to show knowledge of the following subjects:—

HARMONY.

Harmony in not more than four parts, including the harmonizing of melodies.

COUNTERPOINT.

All species of single Counterpoint in two parts.

HISTORY OF MUSIC.

A general knowledge of Musical History within the period 1500 to 1860.

Text books recommended—

Stainer's Harmony Primer ; Banister's "Music" ; Bonavia Hunt's History of Music.

LOCAL EXAMINATIONS IN THE PRACTICE OF MUSIC.

I. PIANOFORTE PLAYING.

Candidates will be required to :—

- (a.) Perform a solo or solos selected from a list of pieces which may be obtained from the Registrar of the University.
- (b.) Play a short piece of music at first sight.
- (c.) Play any scale or arpeggio that may be called for by the Examiners
- (d.) Answer questions on the Elements of Music.

II. ORGAN PLAYING.

Candidates will be asked to :—

- (a.) Perform a solo or solos selected from a list obtainable from the Registrar of the University.
- (b.) Play a short piece of music at first sight.
- (c.) Play on manual or pedal any scale that may be called for.
- (d.) Answer questions on the Elements of Music, on the pitch and quality of organ stops and on the combination of the various stops.

III. SOLO SINGING.

Candidates will be expected to :—

- (a.) Sing one song or aria.

Junior candidates may themselves select any song by the following or other classical writers :—Beethoven, W. S. Bennett, Gounod, Handel, Haydn, Mackenzie, Mendelssohn, Mozart, Rossini, Schubert, Schumann.

Senior Candidates may select any Recitative and Aria from the oratorios or operas of classical writers. The selected piece may be sung in English, French, or Italian, but if in French or Italian the candidate must be prepared to answer questions on pronunciation. The title of the piece chosen must be sent to the Registrar of the University for approval at least one month before the examination.

- (b.) Sing a short piece of music at sight.
- (c.) Undergo tests of the voice as to compass, quality, and power.
- (d.) Answer questions on the Elements of Music.

* * Candidates may bring their own accompanists.

IV. PLAYING UPON ORCHESTRAL INSTRUMENTS.

Candidates may themselves select a solo from the works of classical writers, but must send the title to the Registrar of the University for approval at least one month before the examination. The other tests will be the same as (a), (b), and (c) of Subject I.

* * Candidates may bring their own accompanists.

SUBJECT 1.—PIANOFORTE PLAYING.

Students desiring to pass for a first-class certificate in pianoforte playing must be prepared to play one piece from List A. or two pieces from List B.

For a second-class certificate, one piece selected from either List will suffice.

JUNIOR.

LIST A.

- BACH, J. S.—Any *two* of the 15 two-part Inventions; any *two* of the 15 three-part Inventions.
- BEETHOVEN, L. VON—Sonata, Op. 49, No. 1; Sonata, Op. 49, No. 2; Sonata, Op. 79; Rondo, Op. 51, No. 1; Rondo, Op. 51, No. 2; Variations in G; (the Rondos and Variations are contained in Section III. of Hallé's Pract. Pinf School.)
- CLEMENTI—Any one of the following Sonatas:—Op. 20 in E flat; Op. 21 in D; Op. 24 in B flat; Op. 33, No. 1 in F; Op. 26, No. 3 in D; Op. 25, No. 2 in G; Op. 12, No. 4, in E flat; Op. 36, No. 1 in A; Op. 26, No. 2 in F sharp m.; Op. 2, No. 1 in C; Op. 47, No. 2 in B flat; Op. 37, in E flat.
- CRAMER, J. B.—Sonatas, Op. 43, Op. 47, and Op. 48.
- DUSSEK—Sonata in B flat, Op. 34; Sonata in G, No. 2, Op. 47; 'La Consolation'; Sonata in D, Op. 47, No. 1; Sonata in B flat, Op. 24.
- ESCHMANN, J. C.—Sonata, Op. 33, in C; Sonata, Op. 23, No. 1 in C.
- GOETZ, H.—Sonatines, Op. 8, No. 1 in F; No. 2 in E flat.
- HANDEL, G. F.—Any *one* of his Suites for Pianoforte. Hornpipe and Aria.
- HAYDN, J.—Any *one* of the Piano forte Sonatas; Fantasia in C, 3-time; 12 variations in E flat (on a Menuet from his Quartets).
- HELLER, ST.—Sonatine, Op. 147.
- HUMMEL, J. N.—Rondo, Op. 11, in E flat, Sonata, in C; (No. 1. Litolf).

LIST B.

- BACH—Echo (Partita in B minor); Fugue in G (Fifth French Suite); Sarabande and Allemande in E (Sixth French Suite); Bouree in A minor (Suites Anglaises).
- BEETHOVEN, L. VON—Bagatelles, Op. 33, Nos. 1, 2, 3, 4, 6.
- BENNETT, SIR W. S.—Rondeau, Op. 34; Capriccio in A minor, Op. 28, No. 3; Introduction and Pastorale, Op. 28, No. 1; Rondeau in E, Op. 28, No. 2; The Lake, Op. 10, No. 1; Serenata, Op. 13.
- Bruce, M.—Op. 12, six Pianoforte pieces.
- GADE, N. W.—Sylphides; Aquarelles, Op. 19; Scandinavian Songs.
- HELLER, ST.—Op. 75, No. 1; La dame de pique; Op. 73; Cradle Song; Serenade; Preludes, Op. 119; Op. 92, 3 eclogues; Tarentella in A flat.
- HILLER, F.—Op. 81, Bk. 1, No. 4, Gigue; Bk. 2, No. 7, Menuet; Ghaselen, Op. 54.
- HUMMEL, J. N.—Indian Rondo (in E minor); Trois Amusements, No. 3, Op. 105; La Contemplazione; Rondo Brillant in B flat, Op. 107; Variations in E (Les deux Journées); Op. 42, six pieces facies; Rondoletto Op. 52.
- HENSELT, A.—Chant sans Paroles, Op. 33.
- HANDEL—Fantasia in C.
- HARTMANN, J. P. E.—Novellettes, Op. 55.
- JENSEN, A.—Wanderbilder, Op. 17, No. 3.

LIST A.

- KUHLAU, F.—Sonatine, Op. 20, No. 3; do., Op. 26, Nos. 1, 2, and 3; do., Op. 52, Nos. 1, 2, and 3; Rondos, Op. 84, in F. and A.
- MOZART, W. A.—Any *one* of the Pianoforte Sonatas (except No. 16, Novello).
- PARADIES—Sonata in D (No. 10); Sonata in E; Sonata in F; Sonata in A; Sonata in E minor.
- REINECKE, C.—Sonatines, Op. 47, Nos. 2 and 3.
- SCHUMANN, R.—Op. 118, 3 Kinder-sonten.
- WOELFE—Sonata in C, Op. 53

LIST B.

- KALKBRENNER—Rondo in C.
- KIRCHNER, TH.—Op. 35, Spielsachen
- KULLAK, TH.—Pastorales, Op. 75, No. 1; Sang und Klang, Op. 100, No. 2.
- MENDELSSOHN, F.—Andante and Allegro, Op. 16, No. 1; any of the Songs without Words.
- MERKEL, G.—Bagatelles, Op. 81; Tonblüthen, Op. 82; Aquarellen, Op. 61.
- MOSCHELLES, J.—Rondos, Op. 54, 66, 71, 82.
- MOSZKOWSKI, M.—Scherzo Op. 1.
- RAFF, J.—Op. 75, Suite de morceaux
- REINECKE, C.—Kleine Fantasies-tücke, Op. 17; Märchengestalten, Op. 147.
- RHEINBERGER, J.—Three Studies, Op. 6; five pieces, Op. 9.
- RUBINSTEIN, A.—Soirées de Petersburg, Op. 44; two Melodies, Op. 3; Miniatures, Op. 93.
- SCHARWENKA, PH.—Mazurkas, Op. 29.
- SCHLESINGER—Rondino in B flat.
- STERKEL—Andante in E flat; Rondo in A.
- SCHUMANN, R.—Any *two* of the more difficult numbers from Album, Op. 68.

** Junior Candidates may also select any piece from the lists given for Senior Candidates.

PIANOFORTE PLAYING.

SENIOR DIVISION.

LIST A.

- BACH, J. S.—Any *one* of the 48 Preludes and Fugues; (Wohltemperirter Clavier). Any *one* of the seven Partitas. Any *one* of the six French, or six English Suites.

LIST B.

- BARGIEL, W.—Op. 32, 8 Pianoforte pieces; Characterstücke, Op. 1; 3 Pianoforte pieces, Op. 8.
- BEETHOVEN, L. V.—Bagatelles, Op. 119 and 126.
- BENNETT, W. S.—Three Sketches,

LIST A.

- BEETHOVEN, L. VON—Any *one* of the Pianoforte Sonatas (except those given in Junior List A); Rondo capriccioso, Op. 129; Rondo favori in F; Fantasia, Op. 77, in G m.; any of the more difficult sets of Variations.
- BRAHMS, J.—Sonatas, Op. 1, 2, and 5; Variations on a Theme by Schumann, Op. 9; Variations on a Theme by Handel, Op. 24; Ballades, Op. 10.
- CHOPIN, F.—Sonata in B flat m., Op. 35; Ballades in A flat, Op. 47; do. Op. 23, in G m.; Scherzo, in B flat m., Op. 31; do., in B m., Op. 20; Fantasia, Op. 49.
- GADE, N. W.—Sonata, in E m., Op. 28.
- HANDEL—Fugue in F sharp; Fugue in F; Fugue in F minor.
- HAYDN, J.—Sonata in E flat; (No. 9 Litolf) Variations on a Theme in F m.
- HELLER, ST.—Sonata, Op. 9, in D m.; Sonata, Op. 65, in B m.
- HILLER, F.—Sonata, Op. 47.
- HUMMEL, J. N.—Any *one* of the Pianoforte Sonatas (except No. 1, Litolf); Fantasia in E flat, Op. 18; La bella Capricciosa, Op. 55.
- JENSEN, A.—Sonata in F sharp m., Op. 25
- KESSLER, J. C.—Sonata in E flat, Op. 47.
- KIEL, F.—Variations and Fugue, Op. 17.
- KLENGEL, A.—Any *one* of the 24 Canons et Fugues.
- LISZT, F.—Sonata in B m.
- MENDELSSOHN, F.—Any *one* of the Preludes and Fugues, Op. 35;

LIST B.

- Op. 10, No. 2 and 3; Allegro Grazioso, Op. 18; Rondo à la Polonoise, Op. 37; Toccata in C minor, Op. 38; Scherzo, Op. 27.
- BRUCE, M.—Op. 14, two Pianoforte pieces.
- CHOPIN—Berceuse in D flat, Op. 57; Fantaisie Impromptu, Op. 66; Ballade in A flat, Op. 47; Scherzo in B minor, Op. 20; Tarantelle in A flat, Op. 43; Bolero, Op. 19; Polonoise in A, Op. 40, No. 1. Any of the Nocturnes; any of the Valses; 2 Polonoise, Op. 26; Rondo in E flat, Op. 16; Andante and Polonoise in E flat, Op. 21; Polonoise, Op. 53; Impromptus, Op. 66 and 29; any of the Preludes and Mazurkas.
- EHLERT, L.—Rhapsodies, Op. 15; Lyrische Skizzen, Op. 12; Lieder und Studien, Op. 20.
- ESCHMANN, J. C.—Studies, Op. 16; three pieces caractéristiques, Op. 30; Album Leaves, Op. 47; Romance and Allegro, Op. 24; Esquisses, Op. 28; Trifolium, Op. 64.
- GADE, N. W.—Aquarellen, Op. 19; Idyllen, Op. 34; Fantasiestücke, Op. 41; Volkstæiue, Op. 31.
- GERNSHEIM, F.—Preludes, Op. 2; Variations, Op. 18.
- HELLER, ST.—Two Tarantelles, Op. 85; Ländler und Walzer, Op. 97; two Valses, Op. 93; Saltarella, Op. 77; Transcriptions, Op. 72; The Trout, Op. 33; Scherzo in G m., Op. 108; Nocturnes, Op. 91; Impromptu, Op. 129; Jägerlied, Op. 73; Freischützstudien, Op. 127; La Chasse, Op. 29.
- HENSELT, A.—Rhapsodies, Op. 4; Romances, Op. 22; Pensée fugitive, Op. 8; Nocturnes, Op. 6; Poème d'amour, Op. 3, Transcriptions, Op. 19.
- HILLER, F.—Modern Suite, Op. 144; Six pieces, Op. 130; Reveries, Op. 17, 21, and 33.

LIST A.

- Sonata in E, Op. 6; Capriccioso in F sharp m., Op. 5; Trois Caprices, Op. 33; Rondo capric., Op. 14; Andante and Variations in E flat, Op. 82; Andante cantabile and *Preslo agitato* in B minor; Variations sérieuses, Op. 54; Fugue in D, No. 3, Op. 7; Fugue in A, No. 5, Op. 7.
- MOSCHELES, J.—Sonata in E, Op. 41; Sonata mélancolique in F sharp, Op. 46.
- MOZART, W. A.—Sonata in D (Novello, No. 6); Sonata in F (Novello, No. 15); Sonata in D (Novello, No. 19); Fantasia and Sonata in C; Fantasia in C m.; do. in D m.; do., in C (with Fugue); Rondo in A m.
- NICODE, J. L.—Variations and Fugue, Op. 18.
- REINECKE, C.—Preludes and Fugues, Op. 65; Variations on Theme by Handel, Op. 84.
- RHEINBERGER, J.—Theme with Variations, Op. 41; do., Op. 61; Sinfonische Sonate, Op. 47.
- RÖNTGEN, J.—Sonata in D flat, Op. 10.
- RUBINSTEIN, A.—Sonata, Op. 12, in E m.; do., Op. 100, in A m.; do., Op. 20, in C m.; do., Op. 41, in F m.; Prelude and Fugue, Op. 53, No. 1.
- SCARLATTI, D.—Any one of his 60 Sonatas.
- SCHARWENKA, X.—Sonata, Op. 9; Ballade, Op. 8.
- SCHUBERT, F.—Any one of the Pianoforte Sonatas; Fantasia in G, Op. 78; Fantasia, Op. 15, in C.
- SCHUMANN, R.—Sonata, Op. 22, in G m.; do., Op. 11, in F sharp m.; do., Op. 14, in F m.; Four Fugues, Op. 72; Fantasia in C, Op. 17.
- THALBERG, S.—L'art du Chant appliqué au Piano; Concert Study, Op. 45, in A m.

LIST B.

- HUMMEL, J. N.—Three Amusements, Op. 105; La Bella Capricciosa, Op. 55; Capriccio in F, Op. 49; La Galante, Op. 120; Grand Rondo in A flat, Op. 118.
- JENSEN, A.—Alla marcia ite, Op. 42; Eroticon, Op. 44; Laidler, Op. 46.
- KALKBRENNER, F. Rondo, Op. 130.
- KIEL, F.—Four characteristic pieces, Op. 55; Fantasia, Op. 68.
- KIRCHNER, TH.—Album Leaves, Op. 7; ten pieces, Op. 2; Studies and Pieces, Op. 30; Legends, Op. 18; Romances, Op. 22; Preludes, Op. 9; Scherzo, Op. 8.
- KLEINMICHEL, R.—Aquarellen, Op. 12; four pieces, Op. 15; Album Leaves, Op. 17.
- KULLAK, TH.—Solo Pieces, Op. 104; Im Grünen, Op. 105; Poèmes, Op. 113; Sang und Klang, Op. 100; two Polonaises, Op. 101; Gazelle, Op. 22.
- LISZT, F.—Transcriptions on Schubert's Songs; Glanes; Soirées de Vienne; Fantasia on Lucia, Op. 13; Spinning Song from Flying Dutchman; Fantasia on Hugenots; Rhapsodies Hongroises, &c.
- LOESCHHORN, A.—Two Pianoforte pieces, Op. 54; Jeade Nayade, Op. 129; Valsede Concert, Op. 131.
- LYSBERG, C. B.—Idylle, Op. 62; Andante-Idylle, Op. 84.
- MENDELSSOHN, F.—Fantasia Irlandais, Op. 15; Charakterstücke, Op. 7; Fantasias or Caprices, Op. 16, Nos. 2 and 3; Lieder ohne Worte, Nos. 10, 11, 15, 17, 24, 32, 34.
- MERKEL, G.—Capriccietto and Serenades, Op. 83.
- MOSZKOWSKI, M.—Humoreske, Op. 14.
- NORMAN, L.—Two pieces, Op. 1; four pieces, Op. 2; four pieces, Op. 5; four pieces, Op. 9; Album Leaves, Op. 11.

LIST A.

- VOLKMANN, R.—Variations on Theme by Handel, Op. 26; Sonata, Op. 12, in C m.
- WEBER, C. M. v.—Any one of the four Pianoforte Sonatas.
- WEBER, G.—Sonata in B flat, Op. 1.
- WESTLAKE—Fugue in Octaves.
- WÜLLNER, F.—Sonata, Op. 6, in D m; do., Op. 10, in E.

LIST B.

- RAFF, J.—Suite, Op. 72; twelve pieces, Op. 55; Fantasia, Op. 119.
- REINECKE, C.—Hausmusik, Op. 77; Gavotte, Op. 123, No. 1; Four charact. pieces, Op. 13.
- RHEINBERGER, J.—Toccata, Op. 12; Zum Abschied, Op. 59; six charact. pieces, Op. 67.
- RUBINSTEIN, A.—Six Morceaux, Op. 51; Danses populaires, Op. 82; Polonaise, Op. 5, No. 1; Barcarolle in F minor; Barcarolle in G; Tarantella in B minor.
- SAINT-SAENS.—Gavotte, Op. 23.
- SCHARWENKA, PH.—Scène de Danse, Op. 6; Polonaise, Op. 15.
- SCHARWENKA, X.—Two Tales, Op. 5; Impromptu, Op. 17.
- SCHOLZ, H.—Lyrische Blätter, Op. 40.
- SCHOLZ, B.—Kindergestalten, Op. 40.
- SCHUBERT, F.—Momens musicales, Op. 94; Impromptus, Op. 90; Impromptus, Op. 142; Fantasia, Op. 15; Fantasia, Op. 78.
- SCHUMANN, R.—Humoreske, Op. 20 (first movement); Arabeske in C major; Noveletten in B minor; Carnival's Jest, Op. 26; Noveletten in D; Bunte Blätter, Op. 99; Albumblätter, Op. 124; Scherzocte, Op. 31; Intermezzo Op. 4; Arabeske, Op. 18; Blumenstück, Op. 19; three Romanza, Op. 28; Novelletes, Op. 21; Humoreske, Op. 20; Nachtstücke, Op. 23; Fantasiestücke, Op. 12; Kreisleriana, Op. 16; Carneval, Op. 9.
- TAUBERT, E. E.—Six Arabeshen, Op. 28.
- TAUBERT, W.—Campanello, Op. 41.
- THALBERG, S.—Décameron, Op. 57; Tarantelle, Op. 65; L'arpeggio, Op. 35.
- WEBER—Polacca Brillante in E; Rondo (Il Moto Continuo); Rondo Brillante in E flat; Grand Polonaise in E flat.

SUBJECT 2.—ORGAN PLAYING.

For a first-class certificate one piece from List A. will be required.

For a second-class certificate one piece from either List A. or List B. will suffice.

JUNIOR.

LIST A.

BACH—Eight short Preludes and Fugue (any one may be chosen); Prelude and Fugue, E minor.

HESSE—Prelude and Fugue (E minor); Air, with variations in A.

LIST B.

HILES, HENRY—Six Impromptus, Set I., any number; Set II., any number.

HOPKINS—Short Pieces for the Organ (any one may be chosen).

SMART, H.—Twelve Short Pieces (Novello). (Any one may be chosen).

*** Junior Candidates may also select any piece from the lists given for Senior Candidates.

ORGAN PLAYING.

SENIOR.

LIST A.

BACH—Any one of the important Preludes and Fugues.

HANDEL—Six Concertos (First Set). (Any one may be chosen).

HESSE—Toccatà and Fugue in A flat.

MACFARREN, G. A.—Sonata in C.

MERKEL—Sonata in D minor; Sonata, Op. 42; Sonata, Op. 80.

MENDELSSOHN—Any one of the six Organ Sonatas; any one of the three Preludes and Fugues.

RHEINBERGER—Sonata in C minor. Fantasia Sonata A flat.

SILAS—Sonata in F.

LIST B.

BEST—Fantasia in E flat.

CHIPP—Twenty-four Sketches, Nos. 12 or 16.

HESSE—Air with variations in A. Air with variations in A flat.

HILES, HENRY—Six Impromptus, First Set, Nos. 2 or 4; Second Set Nos. 8, 9, 10, or 12.

MERKEL—Fantasia in D.

SILAS—Allegro Moderato (No. Novello).

EVENING CLASSES.

- I. The Council will, from year to year, arrange for Evening Classes to be held in such subjects as may be deemed expedient.
- II. The number of lectures in each subject will be 25 or 50 according as the classes are held once or twice a week.
- III. No student will be enrolled who is under sixteen years of age.
- IV. The fees will be £1 for each of the shorter courses and £1 10s. for each of the longer courses. No entrance fee will be charged.
- V. The Council may, from year to year, fix the minimum number of students who must pay their fees before a class is formed in any subject.
- VI. The fees are to be paid to the Registrar, and no student shall be enrolled in the class-list unless he presents to the Lecturer the Registrar's receipt.
- VII. The Lecturer appointed for each Class will keep a roll of attendances, and a statement of the attendance will be laid before the Council at the conclusion of each term.
- VIII. If, in the opinion of the Lecturer, any intending student does not possess the necessary knowledge to enable him to profit by the Lectures, the name of such student shall not be entered on the Class List, and the fees shall be returned to him.
- IX. The students attending Evening Classes shall be subject to the general regulations of the University.

ARRANGEMENTS FOR 1890.

Subject to the above conditions, it is proposed to hold Evening Classes in the following subjects during the year 1890:—

	Minimum Number to form a Class.
1. Latin	10
2. Greek	10
3. Mathematics	10
4. Mathematics, Elementary ...	10
5. Mathematics, Advanced ...	10
6. Physics	10
7. Physics, Practical	10
8. Inorganic Chemistry	10
9. Practical Chemistry	10
10. Mineralogy	10
11. Geology	10
12. English }	{ Number to be fixed by Lecturer
14. French }	
15. German }	

The Lectures will have special reference to the subjects of the Higher Public Examination.

N.B.—If ten Students express a wish to have instruction in any subject not mentioned in the list of Lectures, and state their readiness to pay the fees and attend regularly, the Council will consider whether such request can be complied with.

THE UNIVERSITY LIBRARY.

REGULATIONS.

1. The Library shall be open from 10 to 5 on all week days except Saturday, and on Saturdays from 10 to 1.
2. Any Student wishing to make use of the Library shall pay a deposit of £1 to the Registrar and shall then receive a ticket admitting him to the Library for one year. The deposit will be returned at the end of the year unless the holder of the ticket shall have rendered himself liable to fines or shall have damaged any book, in which case the amount of the fines or damage shall be deducted.
3. Students are strictly prohibited from taking books out of the Library, any Student taking a book out of the Library shall be fined *Five Shillings*.
4. If any book or books belonging to the Library be found in the Students' Room and the removal of such book or books from the Library be not acknowledged by the Student so removing them, the privilege of entry to the Library may be entirely denied to all Students for a time to be fixed by the Board of Discipline.
5. The use of pens and ink in the Library is strictly prohibited and will be punished by fine—the amount of such fine to be fixed by the Board of Discipline.
6. Any Student behaving himself in a boisterous or disorderly manner in the Library shall be fined, the amount of the fine to be fixed by the Board of Discipline, and he shall not be allowed to enter or use the Library for a time to be fixed by the Board of Discipline.
7. Members of the Council and Officers of the University wishing to take books out of the University Building shall enter into a book provided for the purpose, the names of such books and the date of their removal and return.
8. All books taken from the bookcases for use in the Library must be left on the Tables.
9. No one using the Library shall converse in such a tone as to interfere with the comfort of other readers under penalty of a fine to be fixed by the Board of Discipline.

Allowed 18th December, 1886.

SCHOLARSHIPS.

UNIVERSITY SCHOLARSHIPS.

The Department of Education offers annually for competition three *University Scholarships*, each of the value of Fifty Pounds per annum, and tenable for three years.

These Scholarships will be annually awarded on the recommendation of the Council of the University.

“Candidates for the Scholarships must be under eighteen years of age on the 31st of January in the year in which the examination is held, and must have been resident in the Province for at least one year immediately preceding the above-named day.

A Special Examination will be held annually for these Scholarships. Candidates must have previously passed the Senior Public Examination or the Matriculation Examination.

No candidate shall be eligible to compete for a Scholarship if he has been in attendance at the day classes of the University.

“The successful competitors must as soon as possible after the examination become students at the University of Adelaide. Payment of the Scholarship will not be made unless the owner conducts himself or herself to the satisfaction of the authorities of the University, and passes the annual examination for the degree of B.A. or B.Sc. Any scholar who may fail at the examination held at the close of the University year will thereby forfeit his Scholarship unless such failure is caused by ill-health or other unavoidable cause.

“The full number of Scholarships will not be awarded unless the Examiners are satisfied that a sufficient number of candidates are worthy.”

The University will hold the next of these examinations in March, 1890, and applications for admission to it must be made to the Department of Education before the 31st January, 1890.

Candidates can obtain the necessary form of application at the Office of the Inspector-General of Schools. This form has to be accompanied by (1) a statutory declaration showing that the candidate has resided in the colony for the specified time, and (2) a copy of the Registrar's certificate of birth, or, if this cannot be obtained, by other satisfactory evidence.

Candidates are requested to send to the Registrar on or before the 10th of February a list of the subjects in which they propose to be examined.

At the Special Examination candidates may be examined in the following subjects, but no candidate shall be examined in both Divisions C. and D.—

	Scale of	Marks.
A. Classics.		
LATIN }		1,000
GREEK }		
B. Mathematics		
(Including Elementary Statics and Dynamics)		1,000
C. Modern Languages.		
ENGLISH	300	} 1,000
FRENCH	300	
GERMAN	400	
D. Science.		
CHEMISTRY	300	} 1,000
EXPERIMENTAL PHYSICS	300	
BOTANY AND PHYSIOLOGY	200	
PHYSICAL GEOGRAPHY and the Principles of Geology ...	200	

The following awards have been made to these Scholarships :—

1876	<i>Æq.</i>	{ Mack, Hans Hamilton Robin, Percy Ansell
1877		{ Wyatt, Harry Sutton (resigned) Donaldson, Arthur
1878		{ Moore, Edwin Canton
1879		{ Holder, Sydney Ernest
March		{ Rogers, Richard Sanders
Dec.		{ Gill, Alfred
1881		{ Kingsmill, Walter Murray, George John Robert
1882		{ Hopkins, William Fleming Leitch, James Westwood Wilkinson, Frederick William
1883		{ Tucker, William Alfred Edgecumbe Walker, William John Robin, Charles Ernest
1884		{ Treleaven, Walter Mead, Cecil Silas Bishop, John Frederick
1885		{ Hollidge, David Henry
March		{ Duence, Richard Hayward, Charles Waterfield (resigned)
October		{ Andrews, Richard Bullock <i>vice</i> Hayward, resigned
1886		{ Burgess, Thomas Martin
March		{ Wylie, Alexander Fischer, George Alfred

1887 March	{ Hone, Frank Sandland Bonnin, William James Marryat, Ernest Neville
1888 March	{ Butler, Frederick Stanley Frewin, Thomas Hugh Wheatley, Frederick William
1889 March	{ Heyne, Agnes Marie Johanna McCarthy, Walter James Chapple, Frederic John

Details of the subjects for the University Scholarships' Examination to be held in March, 1891 :—

A. Classics.

LATIN.

Virgil—Æneid, Book XII.

Tacitus—Annals, Book I. and Book XIV.

Grammar and Composition.

GREEK.

Plato—Phædo.

Sophocles—Philoctetes.

Grammar and Composition.

B. Mathematics.

PURE MATHEMATICS.

Arithmetic, including the theory of the various processes; the elements of mensuration.

Algebra—To Quadratic Equations, including Surds.

Questions will also be set in Algebra to the Binomial Theorem for a positive integral exponent.

Geometry—The substance of Euclid, Books I., II., III., IV., with Exercises.

Questions will also be set in the substance of Euclid, Book VI., and Propositions 1 to 21 of Book XI; and in Plane Trigonometry to Solution of Triangles, including Logarithms.

APPLIED MATHEMATICS.

Elementary Statics, Dynamics, and Hydrostatics.

C. Modern Languages.

ENGLISH.

Marsh—Students' Manual of the English Language. Lectures I. to XI., inclusive (J. Murray).

Trench—Study of Words (Macmillan).

Saintsbury—Elizabethan Literature (Macmillan).

Smith—Smaller Specimens of English Literature from Shakespeare to Pope inclusive (Murray).

Composition.

FRENCH.

- Meissner*—French Philology (Hachette).
Victor Hugo—Chants du Crépuscule.
Girardin—La joie fait peur (Hachette).
St. Beuve—Selections from *Causeries de Lundi* (Clarendon Press).
Translation from authors not specified.
Grammar and Composition.

GERMAN.

- Wright*—Old High-German Primer (Clarendon Press).
Heine—Harzreise.
Körner—Leyer und Schwert.
Schiller—Wallenstein's Tod.
Translation from authors not specified.
Grammar and Composition.

D. Science.

Chemistry.

Experimental Physics.

Botany and Physiology.

Physical Geography and the Principles of Geology.

The same as for those subjects for the Senior Public Examination
for November, 1890. (See pages 91 and 92.)

THE SOUTH AUSTRALIAN SCHOLARSHIP.

The following awards have been made to this Scholarship :

- 1879. Beare, Thomas Hudson, B.A.
- 1880. Robin, Percy Ansell, B.A.
- 1881. Holder, Sydney Ernest, B.A.
- 1882. Donaldson, Arthur, B.A.
- 1883. Murray, George John Robert, B.A.
- 1884. Leitch, James Westwood, B.A.
- 1885. Tucker, William Alfred Edgcumbe, B.A.,
LL.B.
- 1886. Walker, William John, B.A.

This Scholarship has been abolished.

THE ANGAS ENGINEERING SCHOLARSHIP.

The Hon. J. H. Angas has founded in connection with the University a Scholarship, of which the object is to "Encourage the training of Scientific men, and especially Civil Engineers, with a view to their settlement in South Australia."

For the conditions upon which the Scholarship has been founded see Statutes, Chapter XIII. "Of the Angas Engineering Scholarship," Pages 70 and 71.

An examination for this Scholarship will be held in March, 1892, and should the Scholarship not be awarded, an examination for this Scholarship will, if required, be held in March, 1893.

For form of notice by candidates of intention to compete for the Scholarship. (*Vide* page 74).

The following schedule has been drawn up in accordance with No. 5 of the Statutes concerning this Scholarship :—

1. MATHEMATICS.—The pass Mathematical subjects of the third year's course of the B.Sc. Degree.

2. PHYSICS.—The pass subjects in Physics of the third year's course of the B.Sc. Degree.

3. GEOLOGY.

(1) As prescribed in the Third year's course in Science.

(2) The application of the science to drainage and water supply, architecture, road construction, and cognate branches.

(3) The candidates will be required to prove a practical acquaintance with the methods of constructing geological sections and maps. In this particular, specimens of actual work done may be submitted in evidence of practical knowledge.

4. CHEMISTRY.—As prescribed in the First and Second year's courses in Science.

Special attention to be given to the rock forming minerals, and the chemistry of the same, disintegration of rocks ; limes, cements, and clays. The chemistry of explosives. A general practical acquaintance with the methods of water analysis. And in general, the application of chemistry to the elucidation of the causes of decay of building materials, and of the means whereby the same may be arrested or prevented.

The following awards have been made of this Scholarship.

1882. Donaldson, George, B.A.

1889. Farr, Clinton Coleridge, B.Sc.

THE ANGAS ENGINEERING EXHIBITIONS.

For the conditions upon which these Exhibitions have been founded see Statutes, Chapter XIII. "Of the Angas Engineering Scholarship and the Angas Engineering Exhibitions, Sections 11 to 19 inclusive, pages 72 and 73.

An examination for one Exhibition will be held in March, 1890.

For form of notice by candidate of intention to compete for an Angas Engineering Exhibition. (See page 74.)

The following Schedule has been drawn up in accordance with No. 13 of the Statutes concerning these Exhibitions.

1. MATHEMATICS (Pure and Applied).

PURE MATHEMATICS.

Arithmetic, including the theory of the various processes; the elements of mensuration.

Algebra—To Quadratic Equations, including Surds.

Questions will also be set in Algebra to the Binomial Theorem for a positive integral exponent.

Geometry—The substance of Euclid, Books I., II., III., IV., with Exercises.

Questions will also be set in the substance of Euclid, Book VI., and Propositions 1 to 21 of Book XI.; and in Plane Trigonometry to Solution of Triangles, including Logarithms.

APPLIED MATHEMATICS.

Elementary Statics, Dynamics, and Hydrostatics.

2. MODERN LANGUAGES—French, German. As prescribed for the University Scholarships for 1890. (*Vide* page 175).

3. SCIENCE.—Chemistry and Physics. As prescribed for the first year's course of the B.Sc. Degree. (*Vide* page 110).

4. PHYSICAL GEOGRAPHY AND GEOLOGY.—As prescribed for the Senior Public Examination for 1890. (*Vide* pages 91 and 92).

The following awards have been made to these Exhibitions :—

1888. Clinton Coleridge Farr (nominated by the Hon. J. H. Angas).

1889. James Bernard Allan.

THE SOUTH AUSTRALIAN COMMERCIAL TRAVELLERS'
ASSOCIATION (INCORPORATED) SCHOLARSHIP.

For the conditions of this Scholarship see Statutes, Chapter XVI.
"Of the Commercial Travellers' Association Scholarship," Page 77.

The following awards have been made of this Scholarship :

- 1884. Bertram, Robert Matthew.
- 1889. Harrison, Rosa Lillian.

THE JOHN HOWARD CLARK SCHOLARSHIPS.

For the conditions of these Scholarships see Statutes, Chapter XIV. "Of the John Howard Clark Scholarships," Pages 75 and 76.

The Council have prescribed the following subjects for the examination for these Scholarships to be held, if required, in April, 1890 :—

Coleridge—Lectures on Shakespeare.

George Elliot—Romola.

Matthew Arnold—Selected poems, Golden Treasury Series (Macmillan).

Swinburne—Atalanta.

Helps—Essays written in the intervals of business, edited by F. J. Rowe (Macmillan).

Subjects for examination in 1891.

Craik. History of English Literature, Vol. I.

Ward. The English Poets, selections from. Vol. IV.

Scott. Old Mortality.

Carlyle. Sartor Resartus.

The following awards have been made of these Scholarships—

1882. Murray, George John Robert.

1883. Hopkins, William Fleming.

1884. Robin, Charles Ernest.

1885. Mead, Cecil Silas.

1886. Andrews, Richard Bullock.

1887. Wyllie, Alexander.

1888. Hone, Frank Sandland.

1889. Butler, Frederick Stanley.

Proxime accessit. Doolette, Dorham Longford.

CADETSHIPS AT THE ROYAL MILITARY COLLEGE,
SANDHURST.

The University of Adelaide, having now received a Charter by Royal Letters Patent, is entitled to nominate, in each year, to one Cadetship at the Royal Military College at Sandhurst.

Candidates recommended for Cadetships must join the R. M. College within six months after passing the qualifying examination at this University; and at the date of joining must be within the limits of seventeen and twenty-two years of age.

The terms at the R. M. College commence in each year on the 10th of February and the 1st of September respectively, and certificates of the age and of the moral character for the preceding four years of the nominated candidate, must reach the Military Secretary at the Horse Guards at least one month before the candidate joins at Sandhurst. These certificates must be accompanied by the certificate of a military or naval medical officer at the Australian colonies, in which it shall be stated that the candidate is in all respects physically fit for military service. The candidate will be carefully examined as regards eyesight and hearing, as well as in regard to the general soundness of his body.

The question of the literary qualification of candidates having been left to the determination of the nominating University, the Council have prescribed the subjoined rules and scheme of examination.

- I. Candidates must have completed the First Year of the B.A. or of the B.Sc. course.
- II. Candidates will be required to pass a further examination in
 1. *Geometrical Drawing.*
 2. *French or German.*
 3. *Elementary Applied Mathematics.*
and in two at least of the following subjects :
 4. *Latin or Greek.*
 5. *Higher Pure Mathematics.*
 6. *Physics.*
 7. *Chemistry.*
 8. *English History, Literature, and Composition.*
- III. The standard of examination in the subjects numbered 3, 4, 5, 6, 7, shall be that of the corresponding subjects in the Second Examinations for the Degrees of B.A. and B.Sc.
- IV. Candidates shall furnish such evidence of date of birth, good character, and physical fitness as the Council shall require.

- V. The examination shall ordinarily be held once in each academical year in the last term ; but whenever no candidate shall have been adjudged worthy of nomination, a supplementary examination shall be held in the first term of the ensuing academical year.
- VI. The University will give not less than three calendar months notice of the date of each examination.
- VII. At least one calendar month before the date fixed for the examination candidates must give notice of their intention to compete.

The examination for the Cadetship will, if required, be held in the hird term of 1890, and will commence on the 8th of September.

SIR THOMAS ELDER'S PRIZES.

Sir Thomas Elder having given £20 yearly for prizes to the best Students in Physiology, the following awards have been made :—

December,	{	First Prize—Dornwell, Edith Emily.
1882		Second Prize—Knight, Mary Adela McCulloch.
March,	{	Gee, Frederick William.
1884.		Joyce, Mary Amelia.
March,		Not awarded.
1885.		

The Council have decided that for the future these prizes shall be divided into equal amounts, and offered for competition amongst Students in Medicine and non-graduating Students. By a subsequent decision of the Council the prize assigned to Students in Medicine will be awarded to the best student in all the subjects of the First Year's Course of the M.B. degree.

Under this regulation the following awards have been made :

December	{	Hope, Charles Henry Standish (Student in Medicine)	} Non-graduating
1885.		Jacob, Caroline		Students.
		Walker, Jeannie Miller Campbell	
December		Verco, William Alfred (Student in Medicine)	
1886.		Bristowe, Edith (Non-graduating Student)	
December		Powell, Henry Arthur (Student in Medicine)	
1887.	{	Anderson, James	} Non-graduating Students
		Gent, Samuel	
December		Cavenagh, Wentworth Rowland (Student in Medicine)	
1888.		Austin, Matilda Beatrice	} Non-graduating Students
		Coleman, Frederick	
December		Irwin, Henry Offley (Student in Medicine)	
1889.		Howchin, Stella (Non-graduating Student)	

THE STOW PRIZES.

For conditions see Statutes, Chapter XV. "Of the Stow Prizes and Scholar," Page 76.

The following awards have been made of the Stow Prize :

1883.	Thomas Hewitson	...	2nd year
	Alfred Gill	... ..	1st year
1884.	Thomas Hewitson	...	3rd year
	Not awarded	...	1st and 2nd year
1885.	Not awarded		
1886.	Not awarded		
1887.	William James Isbister		3rd year
	Not awarded	...	1st and 2nd year
1888.	Not awarded		
1889.	Not awarded		

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APRIL, 1889.

ORDINARY EXAMINATION FOR THE DEGREE
OF LL.B.

FIRST YEAR.

ROMAN LAW.

MR. F. W. PENNEFATHER, LL.M., and MR. A. GILL, B.A., LL.B.

Time—Three hours.

(No candidate will be allowed to pass in Roman Law who does not show a competent knowledge of Latin.)

I. Translate and explain fully—

Si cui fundus alienus legatus fuerit et emerit proprietatem detracto usufructu et ususfructus ad eum pervenerit et postea ex testamento agat, recte eum agere et fundum petere Julianus ait, quia ususfructus in petitione servitutis locum optinet; sed officio iudicis contineri ut deducto usufructu jubeat aestimationem præstari.

Sed si rem legatarii quis ei legaverit, inutile legatum est, quia quod proprium est ipsius, amplius ejus fieri non potest: et licet alienaverit eam, non debetur nec ipsa nec aestimatio ejus.

Just. II., xx. 9.

II. Classify the various kinds of defences to actions, explaining the different senses in which the term *exceptio* has been employed.

Ordinary Exam.,
LL.B.,
First Year,
April, 1889.

Ordinary Exam.,
LL.B.,
First Year,
April, 1889.

III. Write explanatory notes on the following passages :—

(a). Aliquando autem evenit, ut liberi qui statim ut nati sunt parentum in potestate non fiant, ii postea tamen redigantur in potestatem.

G. I., 65.

(b). Conceptum furtum dicitur, cum apud aliquem testibus presentibus furtiva res quaesita et inventa est : nam in eum propria actio constituta est, quamvis fur non sit, quae appellatur concepti.

G. III., 186.

(c). Publicorum judiciorum quaedam capitalia sunt quaedam non capitalia.

Just. IV., xviii. 2.

IV. Explain the following terms :—

Dediticius, actio arbitraria, compensatio, utrobi, fidei commissum, pignus, bonorum sectio, praedia tributaria.

V. Enumerate briefly the most important provisions of the following laws :—

Lex Canuleia, Lex Falcidia, Lex Julia Majestatis, Lex Furia Caninia.

VI. Enumerate and explain the ways in which Latins might become Roman citizens.

VII. Translate and explain—

Ex quibusdam tamen causis repeti non potest quod per errorem non debitum solutum sit. Namque definerunt veteres, ex quibus causis infitiando lis crescit, ex his causis non debitum solutum repeti non posse, veluti ex lege Aquilia, item ex legato. Quod veteres quidem in his legatis locum habere veluerunt, quae certa constituta per damnationem cuicumque fuerant legata : nostra autem constitutio cum unam naturam omnibus legatis et fideicommissis indulsit, hujusmodi augmentum in omnibus legatis et fideicommissis extendi voluit : sed non omnibus legatariis praebuit, sed tantummodo in his legatis et fideicommissis, quae sacrosanctis ecclesiis ceterisque venerabilibus locis, quae religionis vel pietatis intuitu honorificantur, derelicta sunt, quae si indebita solvantur, non repetuntur.

Just III., xxvii. 7.

VIII. Translate and explain—

Ordinary Exam.
LL.B.
First Year,
April, 1889.

(a). Ita autem concepta stipulatio, veluti si Titius dicat "cum moriar dare spondes?" vel "cum morieris" et apud veteres utilis erat et nunc valet.

Just III., xix. 15.

(b). Masculo igitur usque ad quatuordecim annos substitui potest, feminae usque ad duodecim annos: et si hoc tempus excesserit, substitutio evanescit.

Just II., xvi. 8.

(c) Capitis deminutio.

XI. Trace briefly the growth of the doctrine of Agency in the Roman Law.

X. Could a debtor be sued for breach of contract in a place different from that in which he had agreed to perform his promise?

Is the general rule subject to any modifications?

XI. How were "Donationes mortis causa" made? In what particulars did they differ from legacies?

XII. In what modes could a "Universitas rerum" be acquired under the Roman law in the time of Justinian?

LAW OF PROPERTY.

MR. F. W. PENNEFATHER, LL.M., AND MR. T. B. GALL.

Time—Three hours.

[You are required to give reasons where your answers involve matters of opinion.]

- I. Explain the various forms of tenure which existed in England during the Feudal period, showing which of them are now obsolete.
- II. Trace fully the history of the law as to Mortgages, both in England and South Australia.
- III. Explain the following terms:—Livery, executory interest, covenant to stand seised, administrator *de bonis non*, ademtion, lease, writ of elegit, lien, trademark.

Ordinary Exam.
LL.B.
First Year,
April, 1889.

- IV. What is meant by the "order and disposition clause" in the Insolvency Act? Give illustrations.
- V. Explain the difference between a Foreign and an Inland Bill of Exchange, and the procedure in the case of each.
- VI. What covenants are implied in a conveyance of land in South Australia, which is not under the Real Property Act?
- VII. State the principal provisions of the Act to Amend the Law of Partnership, showing how far they were changes, and how far they were merely statements of the law then existing.
- VIII. What is the law as to a *Donatio mortis causa*?
- IX. Explain fully the distinction between a Corporation and a Joint-stock Company.
- X. In what ways may goods above the value of £10 be alienated?

LAW OF PROPERTY.

MR. F. W. PENNEFATHER, LL.M., AND MR. T. B. GALL.

Time—Three hours.

- I. Explain "dower." State what alterations have taken place in England in the law relating thereto during the present century, and whether under any and what circumstances a widow is now entitled to dower in South Australia.
- II. A, domiciled in England, dies there intestate, possessed of real and personal property in England and South Australia, leaving a widow, two sons, and a daughter surviving him. To whom, and in what shares and proportions, does such property descend.
- III. Explain *interesse termini*, and give an illustration.
- IV. Prior to the Married Woman's Property Act, what rights had a husband in lands in South Australia belonging to his wife? Are these rights affected by the Act, and, if so, how?
- V. What alteration was made in the law relating to Mortgages by "Locke King's Act?" Has that act been adopted in South Australia?

- VI. What limit has been fixed by law to the creation of contingent remainders and executory interests in land? and how long may income be accumulated?
- VII. Explain what is meant by "lapse" as applied to gifts under a will. Give examples, and state under what circumstances (if any) lapse will not occur where the person to whom the gift is made predeceases the testator.
- VIII. A horse having been stolen, is sold by the thief privately to a *bona fide* purchaser, and by him subsequently sold at public auction. The original owner recognises the horse, and claims it from the man who bought it at auction. Can he recover at law? Would you answer differently, and how, had the stolen property been jewellery or bank notes?
- IX. How are the rights of lessee and lessor, under a lease for years, affected by the lessee being adjudicated insolvent?
- X. A owns land in South Australia, upon which a reef containing payable gold is discovered? Is A entitled to such gold, as owner of the land, and how, if at all, are his rights affected by recent legislation? Who would be entitled to the gold, if the land were in England?
-

SECOND YEAR LL.B.

JURISPRUDENCE.

MR. F. W. PENNEFATHER, LL.M., and MR. T. HEWITSON, LL.B.

Time—Three hours.

- I. Explain fully the theory of utility, and the misconceptions which are current concerning it.
- II. What does Austin mean by *positive morality*? What are his reasons for choosing the term?
- III. Compare and explain *negligence*, *heedlessness*, and *rashness*.
- IV. What are the principal grounds of exemption from liability?
- V. Trace the historical connection between the Roman *ius gentium* and modern International Law.
- VI. How, according to Maine, has the *Patria Potestas* influenced (a) Hindoo customs; (b) Roman laws as to women; and (c) the succession to Real Property in England?
- VII. Explain the following terms:—
 - (a). *Jus Moribus constitutum*.
 - (b). *Jus naturale*.
 - (c). *Jus receptum*.
- VIII. Is there anything in English Jurisprudence analagous to the Roman "Law of imperfect obligation?" Give reasons and authorities for your argument.
- IX. What constitutes "an independent political Society?" Illustrate your definition by examples.
- X. Can any legislative act of the British Parliament be unconstitutional? Discuss the question fully.
- XI. (a). *A* assaults *B*.
 (b). *A* coins false money, not intending to utter it.
 (c). *B* finds the false coin and utters it, knowing it to be false.

Classify as relative or absolute the respective duties which *A* and *B* violate in each case.

- XII. Give examples of Jura in re aliena from the English Law of Property, with corresponding examples from the Roman Law, comparing and distinguishing each.

Ordinary Exam.,
LL.B.
Second Year,
April, 1880.

CONSTITUTIONAL LAW.

MR. F. W. PENNEFATHER, LL.M., and MR. T. HEWITSON, LL.B.

Time—Three hours.

- I. Describe the system of local government in England in the Anglo-Saxon period.
- II. Examine the title of James I. to the crown of England.
- III. Write a short account of the Parliaments held during the Commonwealth.
- IV. Explain the constitution and privileges of the House of Lords at the present time.
- V. Explain fully (citing authorities) the civil and criminal liabilities of a Colonial Governor.
- VI. What was the "Colonial System?" When was it first introduced, and when was it finally abolished?
- VII. Explain fully the signification of the term "Constitutional Law."
- VIII. Write a short history of "Trial by Jury," and mention the principal Acts of Parliament and authorities affecting Trial by Jury in South Australia.
- IX. Certain leading provisions of the Constitutional Law of England may be fully described as landmarks limiting the prerogative of the Crown. Name such provisions, and the principal enactments and decisions (in historical order) by which they have been from time to time confirmed.
- X. What new treasons were created by the Act of Settlement?
- XI. An aboriginal native of Central South Australia is killed by the executive (*pinyeh*) of his tribe for an offence punishable, according to tribal custom, by death. Discuss the extent and grounds of the liability of the tribe, or of its members, for this act.
- XII. What are the qualifications required for membership of the South Australian House of Assembly?

THE LAW OF CONTRACTS.

MR. F. W. PENNEFATHER, LL.M., and MR. E. PARISS NESBIT.

[*You are required to give reasons where your answers involve matters of opinion.*]

- I. Classify (giving illustrations) Agreements of Imperfect Obligation.
- II. "Equity will not interfere to perfect an imperfect gift." Explain this maxim fully.
- III. What are the rights and liabilities of the respective parties to a contract, when one of them has entered into it professing to be an agent, but in truth has no responsible principal?
- IV. Explain the doctrines of equity with reference to contracts with "expectant heirs," showing who are included in the term.
- V. In what cases may clauses in separation deeds providing for the custody of the children be enforced?
- VI. Explain the difference between contracts which are affected by the 4th, and the 17th sections of the Statute of Frauds respectively, and show how the views which were formerly held on the subject have recently been modified.
- VII. Under what circumstances will the Court rectify a written agreement on the ground of mistake?
- VIII. When will a Court grant specific performance of an agreement for sale of land, with compensation or abatement—(a) At the suit of the vendor; (b) At the suit of the purchaser?
- IX. Explain the doctrine of merger as applied to contracts.
- X. Define a consideration, and state in what cases it is essential to the validity of a contract.
- XI. What are the nature and extent of the rights of a person who has contracted with an agent, whom he supposed to be a principal, on afterwards discovering that he was really an agent for a third party? Give cases.
- XII. What is the rule of law with regard to persons making assertions as to which they are ignorant whether they are true or untrue? Give your authority.

THIRD YEAR LL.B.

Ordinary Exam.
LL.B.
Third Year,
April, 1889.

INTERNATIONAL LAW.

MR. F. W. PENNEFATHER, LL.M., and MR. R. G. MOORE.

Time—Three hours.

[In all answers involving matters of opinion reasons must be stated.]

- I. Trace the rise of Public International Law, drawing a contrast between it and the systems in the ancient world to which it has been compared.
- II. Investigate the claims of the various Christian Powers to interfere in Turkey on the ground of religion.
- III. Illustrate and explain the distinction between recognition of independence and recognition of belligerency.
- IV. A, a German subject, becomes naturalized at Adelaide. He then goes to reside in New Caledonia. To what country does he belong? Would the case have been the same if he had originally been a British subject, had renounced his British Nationality, and then been re-admitted thereto at Adelaide?
- V. In what cases will an English Court grant a divorce although the husband is not domiciled in England?
- VI. "The personal statute or law, with domicile as its criterion, is applied in England with regard to (amongst other things) the capacity to marry; and there is considerable authority for its application to the capacity for other contracts than that of marriage."
Explain this remark fully, citing authorities.
- VII. What is your opinion as to the efficacy of arbitration as a means of settling disputes between Nations?
Distinguish arbitration from mediation.
- VIII. Give an account of the case of Franz Müller.
- IX. Define "Sovereign State," "Domain," "Interference," "Status," "Forum Contractus."
- X. Explain the maxim "Mabilia sequuntur personam."

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XI. "The formalities required for a contract by the law of the place where it was made are necessary for its validity in England."

Explain and illustrate (citing authorities) this statement.

XII. State the principal rules with regard to Exterritoriality.

LAW OF WRONGS.

MR. F. W. PENNEFATHER, LL.M., AND MR. E. B. GRUNDY.

Time—Three hours.

[*You are required to give reasons where your answers involve matters of opinion.*]

- I. Explain the history, and the present state of the criminal law, with reference to trades unions and similar combinations.
- II. Define *riot, affray, embezzlement, pain forte et dure, conversion, exemplary damages.*
- III. Explain the various remedies for nuisance.
- IV. Classify libels (in criminal law) and state the changes which have taken place in the law concerning them in modern times.
- V. What is necessary to found an action of deceit?
- VI. Explain fully, giving illustrations, the liability of a master for torts committed by his servant.
- VII. Is an action against the Governor of South Australia maintainable in a South Australian Court? What course should the Court adopt in such cases?
- VIII. If a telegram is altered by the clerk in transmission, and the receiver of the telegram is damaged thereby, has he a right of action against the telegraph company; and if so, on what grounds?
- IX. Explain the history and use of an action for "enticing away a servant."
- X. What was decided in the Six Carpenters' Case?
- XI. What is the law with reference to the compounding of crimes?
- XII. State fully the courses open to a prisoner who has been arraigned.

LAW OF PROCEDURE.
(INCLUDING EVIDENCE.)

Ordinary Exam.,
LL.B.
Third Year,
April, 1889.

MR. F. W. PENNEFATHER, LL.M., AND MR. E. B. GRUNDY.

Time—Three hours.

(You are required to give reasons where your answers involve matters of opinion.)

- I.—Explain the following terms:—*pre-appointed evidence, evidence extra causam, self-regarding evidence, interpleader, garnishee, audita querela.*
- II.—Enumerate, with explanatory notes in each case, the various ways in which actions may be disposed of.
- III.—When may evidence be given, otherwise than *vivâ voce* in open Court? State the rules in such cases.
- IV.—What are the principal grounds of suspicion of testimony?
- V.—Explain the history of the law as to Set-off and Counter-claim; and show the difference between the two.
- VI.—State fully the law as to the admissibility of the evidence of the husbands and wives of parties, in both civil and criminal proceedings.
- VII. What is the law as to the admissibility of opinion evidence?
- VIII. Explain the law as to the testimony of Atheists.
- IX. What are the principal differences between the rules of evidence in Civil and in Criminal cases?
- X. When may a Plaintiff, without motion, enter judgment against a Defendant who has not appeared? When is such judgment final, and when interlocutory?
- XI. What is the proper course for a Defendant who means to rely upon the statute of frauds?
- XII. State the provisions of the Local Courts Act 1886, as to the Court in which actions are to be commenced and the procedure to be adopted when the Defendant objects to the jurisdiction, distinguishing between the practice before the Local Courts Amendment Act 1888, and *after* the passing of that Act.

M A R C H, 1 8 8 9.

PRELIMINARY EXAMINATION.

I. DICTATION.

The note of the Whitethroat, which is continually repeated, and often attended with odd gesticulations on the wing, is harsh and displeasing. These birds seem of a pugnacious disposition; for they sing with an erected crest, and attitudes of rivalry and defiance; are shy and wild in hatching time, avoiding neighbourhoods, and haunting lonely lanes and commons: nay, even the very tops of Sussex downs, where there are bushes and covert; but in July and August they bring their broods into gardens and orchards, and make great havoc among the summer fruits.

The song of the Redstart is superior, though somewhat like that of the whitethroat; some birds have a few more notes than others. Sitting very placidly on the top of a tall tree in a village, the cock sings from morning to night: he affects neighbourhoods, and avoids solitude, and loves to build in orchards and about houses; with us he perches on the vane of a tall maypole.

I. READING.

When I used to rise in the morning last autumn, and see the swallows and martins clustering on the chimneys and thatch of the neighbouring cottages, I could not help being touched with a secret delight, mixed with some degree of mortification: with delight to observe with how much ardour and punctuality those poor little birds obeyed the strong impulse towards migration, or hiding, imprinted on their minds by their great Creator; and with some degree of mortification, when I reflected that, after all our pains and enquiries, we are yet not quite certain to what regions they do migrate; and are still farther embarrassed to find that some do not actually migrate at all.

2 AND 3. ENGLISH GRAMMAR AND COMPOSITION.

Preliminary
Examination,
March, 1889.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Two hours.

- I. Of the following passages analyze the second and third, and parse the words in italics in all three.
- (a) I should be *much* for open war, O Peers,
As not *behind* in hate, if what was urged
Main *reason* to persuade immediate war
Did not dissuade me most.
- (b) If *such* there *be*, go, mark him well.
- (c) To *thine own self* be true—
Thou canst not then *be* false to any man.
- Put the first passage in your own words, explaining the meaning of the word Peers.
- II. Give adjectives, not verbal adjectives in *ing*, corresponding to the following verbs:—*conceive, deceive, receive, perceive, confide, define*. Also nouns corresponding to the verbs:—*apply, concede, repair, compare, prepare, distinguish*, and nouns corresponding to the following adjectives:—*delicate, present, transparent, sleepless, soluble, suspend*.
- III. Note anything peculiar in the following sentences and correct them if necessary:—
- (a) They all cried "That's him."
- (b) If I was to do such a thing I would deserve punishment.
- (c) Where's the use of it?
- (d) These sort of things.
- (e) He says to me, says he.
- (f) We had a good swim.
- IV. State what you know of the plural forms:—Children, oxen, swine, beaux, sheep, fishes.
- V. Write an essay on one of the following subjects:—
- (a) The supply of seed wheat to farmers.
- (b) The effect of the Broken Hill mines on the prosperity of South Australia.
- (c) The effects of long holidays on schoolboys.
- N.B.*—Every candidate must attempt the last question.

ARITHMETIC.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Two hours and a-half.

- I. From seven thousand millions and six subtract five millions two thousand and ten, and express the result both in words and in figures.
 - II. To multiply a number by 9,999 add four ciphers and subtract the original number. Explain this rule.
 - III. How many grains are there in a dram, a pound Troy, a pound Avoirdupois, a gallon of water? Also, how many inches in a link, how many acres in a square mile, and how many pints in a gallon?
 - IV. I buy oranges at a certain price, and sell one-third of them at a $\frac{1}{2}$ d. each, one-fifth at $\frac{3}{4}$ d. each, one-tenth at a 1d. each, and have eleven left in a worthless condition. I lose $7\frac{1}{2}$ d. by the transaction. Find the number of oranges and the price paid for each.
 - V. How many times would $16\frac{3}{4}$ yards be contained in $5\cdot0625$ miles?
 - VI. At what rate of simple interest will a sum of money treble itself in 30 years?
 - VII. I buy articles at $6\frac{2}{3}$ d., and sell them for $6\cdot9\dot{3}$ d. How much do I gain per cent.?
 - VIII. A centimetre is one-hundredth part of a metre, which is equal to $39\cdot37$ inches nearly. Find the number of cubic centimetres in a cubic foot.
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MARCH, 1889.

SPECIAL SENIOR PUBLIC EXAMINATION.

DIVISION A.

(A) ENGLISH HISTORY.

FIRST TWO STUARTS.

E. G. BLACKMORE, ESQ.

Time—Two hours.

Only five of the following questions are to be answered.

- I. Give a sketch of the character of James I., and illustrate your estimate of his character by incidents in his life and reign.
- II. Give the origin, history, and consequences of the Gunpowder Plot.
- III. Describe the steps taken by James to reduce Ireland to order, and state what social rank was created in connection therewith, and, how is the connection perpetuated.
- IV. Give a narrative of the events in the life of Raleigh immediately preceding his execution, and state what political relations and motives contributed to his death.
- V. (a) State fully the proceedings in the third Parliament of Charles I.
(b) Give the principal clauses of the important Statute in which they culminated.
- VI. (a) To what means had Charles I. recourse to raise revenue, independently of Parliament?
(b) What do you understand by "prerogative?"
- VII. Relate briefly, in order of time, the grievances which successively alienated the Parliament from Charles I.
- VIII. (a) Give the date and place of the raising of the Royal Standard:

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- (b) Give the names of the chief Cavalier and Roundhead leaders, and of any moderate statesmen of influence of the period.
- IX. (a) Give the history of the differences between Charles I. and his Scotch subjects, and the bearing they had on his contest with the Long Parliament.
- (b) What were the chief articles of the Solemn League and Covenant?
- X. Give an account of the formation of the alliance between the Parliament and the Scots; the negotiations attending it, and the persons by whom it was effected.

PART II.

Only two of the following questions are to be answered.

- I. (a) On the death of Elizabeth, what claims to the English Crown existed?
- (b) "In the eye of the law, the first Stuart was an usurper." Examine this statement.
- (c) How was the defective title of James I. rectified; and in what sense is it true that he was, constructively, an elected king?
- II. (a) Indicate events and measures in the reigns of the two first Stuarts which have had a permanent effect on the English Constitution.
- (b) How far can it be said that the English nation owes its freedom to the Puritans? Illustrate this by historical facts.
- III. (a) Give a definition of the Parliament of England, and state its component parts.
- (b) In what essential particulars did the court which tried Charles Stuart differ from the bodies which were concerned in the proceedings against two of the earlier kings of England?
- (c) Give the names of these kings, and the proceedings in their cases.
- (d) Was Charles Stuart correct in his protest that "the kingdom of England was hereditary, and not elective?" Give reasons for the view you take.
- IV. "There would seem to be no way provided for punishing an illegal act done by the Sovereign in his own person." Examine this statement, and illustrate it by the Constitutional position of the Sovereign at the close of the nineteenth century, as compared with that of Charles I.

DIVISION A.

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(B) ENGLISH LITERATURE.

(Selections from Bacon and Milton.)

PROFESSOR BOULGER, M.A., D.LITT.

Time—Two hours.

- I. "Converse with books," says Locke, "is not the principal part of studies." Compare this statement with Bacon's view as expressed in his Essay on Studies.
- II. What according to Bacon are the chief fruits of friendship; the advantages of Adversity; and the disadvantages of Suspicion?
- III. "Machiavel knew not a friar Clement, nor a Ravaillac, nor a Jaureguy, nor a Balthasar Gerard. Yet his rule holdeth still that nature, nor the engagement of words, are not so forcible as custom. Only superstition is now so well advanced that men of the first blood are as firm as butchers by occupation and votary resolution is made equipollent to custom, even in matter of blood."

Write notes on the historical allusions in the first sentence; explain the grammatical structure of the second sentence; and paraphrase the last sentence so as to make its meaning clear.
- IV. Write notes on the following quotations and describe briefly the general tenor of the Essays in which they occur:—
 - (a) Multum incola fuit anima mea.
 - (b) Cosmus, Duke of Florence, had a desperate saying.
 - (c) Tell a lie and find a troth.
 - (d) The mixture of a lie doth ever add pleasure.
- V. Explain the titles *l'Allegro* and *Il Penseroso* and quote from the poems passages justifying the titles.
- VI. Point out some of the defects of the *Lycidas*, and state what you consider to be its chief merits.
- VII. Illustrate by examples the most striking peculiarities of Milton's style.
- VIII. Write notes on the following passages:—
 - i. Nor is Osiris seen
In Memphian grove or green
Trampling the unshowered grass with lowings loud;
Nor can he be at rest
Within his sacred chest.

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- ii. A book was writ of late called *Tetrachordon*.
 iii. Vane, young in years, but in sage counsel old,
 Than whom a better senator ne'er held
 The helm of Rome, when gowns not arms, repelled
 The fierce Epirot and the African bold.
 iv. Henceforth thou art the genius of the shore,
 In thy large recompense, and shalt be good
 To all that wander in that perilous flood.
 IX. Explain the structure of the sonnet.

DIVISION A.

2. LATIN.

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—

Vestra autem causa me nec ullius alterius loqui, quæ loquor apud vos, vel ea fides sit, quod neque, dum vestris viribus restitistis, neque, dum auxilia ab Romanis sperastis, pacis unquam apud vos mentionem feci. Postquam nec ab Romanis vobis ulla est spes nec vestra vos iam aut arma aut mœnia satis defendunt, pacem affero ad vos magis necessariam quam æquam. Cuius ita aliqua spes est, si eam, quemadmodum ut victor fert Hannibal, sic vos ut victi audietis, et non id, quod amittitur, in damno, quum omnia victoris sint, sed, quicquid relinquitur, pro munere habituri estis.

—Livy, Book XXI., cap. 13.

Hæc directa percontatio ac denuntiatio belli magis ex dignitate populi Romani visa est quam de fœderum iure verbis disceptare, quum ante, tum maxime Sagunto excisa. Nam si verborum disceptationis res esset, quid fœdus Hasdrubalis cum Lutatii priore fœdere, quod mutatum est, comparandum erat, quum in Lutatii fœdere diserte additum esset, ita id ratum fore, si populus censisset, in Hasdrubalis fœdere nec exceptum tale quicquam fuerit, et tot annorum silentio ita vivo eo comprobatum sit fœdus, ut ne mortuo quidem auctore quicquam

mutaretur? Quanquam, etsi priore fœdere staretur, satis cautum erat Saguntinis, sociis utrorumque exceptis; nam neque additum erat "iis, qui tunc essent," nec "ne qui postea assumerentur."

—Livy, Book XXI., cap. 19.

Perventum inde ad frequentem cultoribus alium, ut inter montanos, populum. Ibi non bello aperto, sed suis artibus, fraude et insidiis, est prope circumventus. Magno natu principes castellorum oratores ad Pœnum veniunt, alienis malis, utili exemplo, doctos memorantes amicitiam malle quam vim experiri Pœnorum: itaque obedienter imperata facturos: commeatu itinerisque duces et ad fidem promissorum obsides acciperet. Hannibal nec temere credendum nec aspernandum ratus, ne repudiati aperte hostes fierent, benigne quum respondisset, obsidibus, quos dabant, acceptis et commeatu, quem in viam ipsi detulerant, usus, nequaquam ut inter pacatos composito agmine duces eorum sequitur.

—Livy, Book XXI., cap. 34.

Sempronius ad tumultum Numidarum primum omnem equitatum, ferox ea parte virium, deinde sex millia peditum, postremo omnes copias, a destinato iam ante consilio avidus certaminis, eduxit. Erat forte brumæ tempus et nivalis dies in locis Alpibus Appenninoque interiectis, propinquitatem etiam fluminum ac paludum prægelidis. Ad hoc raptim eductis hominibus atque equis, non capto ante cibo, non ope ulla ad arcendum frigus adhibita, nihil caloris inerat, et quicquid auræ fluminis appropinquabant, afflabat acrior frigoris vis. Ut vero refugientes Numidas insequentes aquam ingressi sunt (et erat pectoribus tenuis aucta nocturno imbri), tum utique egressis rigere omnibus corpora, ut vix armorum tenendorum potentia essent, et simul lassitudine et, procedente iam die, fame etiam deficere.

—Livy, Book XXI., cap. 54.

Est et alia de captivis fama: decem primos venisse; de eis quum dubitatum in senatu esset, admitterentur in urbem necne, ita admissos esse, ne tamen iis senatus daretur; morantibus deinde longius omnium spe, alios tres insuper legatos venisse, L. Scribonium et C. Calpurnium et L. Manlium; tum demum ab cognato Scribonii tribuno plebis de redimendis captivis relatum

esse, nec censuisse redimendos senatum; et novos legatos tres ad Hannibalem revertisse, decem veteres remansisse, quod per causam recognoscendi nomina captivorum ad Hannibalem ex itinere regressi religione sese exsolvissent.

—Livy, Book XXI., cap. 61.

Write some remarks on the character of Hannibal as described by Livy.

Give a short history of the events which led to the second Punic War, and mention, with dates and circumstances, the chief battles that were fought in it.

Write notes, explaining the following words and phrases :—
Cum justo equitatu—celox—animadversio—diserte—
stipendia facere—caetratos—conquisitor—triumviri.

Quote any expressions you can remember in Livy that show peculiarities of style.

What is the force of the prefix in the following compounds :
—Devincire—deflectere—deverere—deflere—deplere—
debellare—deridere—diffidere—dignoscere—dilaudare.

Give accurately the meanings of the words—Quotquot, utervis, quispiam, qualiscunque, aliquot, quotus, totidem, alteruter; and also of the singular and plural forms of rostrum, opera, littera, copia, auxilium, aedes.

Write a note on the use of the Infinitive mood in Latin. Is the so-called Present Infinitive really a present tense?

Give the perfect indicative supine and infinitive present of adjuvo, mordeo, caveo, premo, gigno, texo, sero (2), strepo.

For Latin Prose—

Scipio was the son of that Publius who, by an unlooked-for reverse of fortune, had just been defeated and killed in the field of his numerous victories and in the full tide of his success. But Fortune, so capricious towards the father, was unswerving in her devotion to the son. He was then only twenty-four years of age, but, young as he was, he was already known to fame by his conduct on three critical occasions. As a mere stripling of seventeen he had saved, or it was believed he had

saved, his father's life at the battle of Ticinus at the risk of his own; after Cannae it was his resolute bearing which had shamed or frightened the recreant nobles of Rome from deserting the fast sinking ship of the state; at the age of twenty-three he had been candidate for the Curule Aedileship, and when the magistrate objected that he was not yet of legal age, he replied that if all the Quirites wished to make him an aedile he was old enough.

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DIVISION A.

DIVISIONS 3. GREEK. 4. FRENCH. 5. GERMAN.
6. ITALIAN.

No candidates.

DIVISION B.

7. PURE MATHEMATICS. I.

PROFESSOR BRAGG, M.A.

Time—Three hours.

[In order to pass in this paper it is only necessary to satisfy the Examiners in Parts I. and II. taken together, but Candidates who wish to obtain a credit are advised to attempt also the questions in Part III., for they carry, as a rule, many more marks than the others, and to omit those in Part I., at any rate until they have done what they can of the rest of the paper.]

- I. The length of a pendulum whose time of vibration is one second is found to be 39.159 inches. The number of inches in the length of a pendulum is proportional to the square of the number of seconds in its time of vibration. Determine the length of a pendulum whose time of vibration is $1\frac{2}{5}$ seconds.
- II. Multiply $x^2 - 15x - 76$ by $x^2 + 4x - 60$ and divide the product by $x^2 + 2x - 24$.
- III. Simplify

$$\frac{a-b}{(b-c)(c-a)} + \frac{c-b}{(a-c)(a-b)} - \frac{a-c}{(b-a)(c-b)}$$

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IV. Solve the equations

$$\begin{aligned} \text{(i.) } & \frac{x-a}{a-b} + \frac{x-c}{c-a} = \frac{c-b}{a-c} - 1 \\ \text{(ii.) } & \left. \begin{aligned} 3x - \frac{5y}{2} &= 40 \\ 7x - 21 - 11y &= 62 \end{aligned} \right\} \end{aligned}$$

PART II.

V. Given that the specific gravity of iron is 7.76 and that of lead 11.4, determine the diameter of a leaden sphere which shall be equal in weight to an iron sphere of 6 inches radius.

VI. If $\sqrt{a + \sqrt{b}} = p + \sqrt{q}$
prove that $\sqrt{a - \sqrt{b}} = p - \sqrt{q}$
Find the square root of $5 + 2\sqrt{6}$.

VII. Two boats start together for the same point, distant 120 miles; one boat travels two miles an hour faster than the other and arrives at the destination two hours before it. Find the time taken by each boat.

VIII. Find the Greatest Common Measure of—

$$2x^4 - 14x^3 - 50x^2 - 94x - 60 \text{ and } 3x^4 + 15x^3 + 27x^2 + 27x.$$

IX. Solve the following equations—

$$\begin{aligned} \text{(i.) } & \sqrt{x-6} - \sqrt{x+3} + 1 = 0 \\ \text{(ii.) } & \left. \begin{aligned} x + \frac{y}{2} &= \frac{5}{2} \\ 4x^2 + y^2 &= 17 \end{aligned} \right\} \\ \text{(iii.) } & \left. \begin{aligned} \frac{px}{yz} - \frac{1}{z^2} - \frac{1}{y^2} &= 0 \\ \frac{qy}{xz} - \frac{1}{x^2} - \frac{1}{z^2} &= 0 \\ \frac{rz}{xy} - \frac{1}{y^2} - \frac{1}{x^2} &= 0 \end{aligned} \right\} \end{aligned}$$

PART III.

X. Show how to sum the series—

$$a, ar, ar^2, ar^3, \text{ etc., to } n \text{ terms.}$$

What is the Harmonic Mean between 24 and 6?
Insert 6 Arithmetical Means between $-\frac{1}{2}$ and $\frac{25}{4}$.

- XI. Show how to find the greatest term in the expansion of $(x + a)^n$, where n is a positive integer.
- XII. Trace and explain by means of a diagram the changes which take place in the cosine of an angle as the angle increases from 0° to 360° .
- XIII. Prove that

$$\frac{-\cos 4A + \cos 5A}{\sin 6A + \sin 3A} = \frac{\tan \frac{A}{2}}{1 - 2 \cos A}$$

- XIV. Obtain a formula which will enable you to solve a triangle having given two sides and the included angle, and which is also adapted for logarithmic calculation.

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DIVISION B.

7. PURE MATHEMATICS II.

PROFESSOR BRAGG, M.A.

Time—Three hours.

In order to pass in this paper it is only necessary to satisfy Examiners in Parts I. and II. taken together; but candidates, who wish to obtain a credit, are advised to attempt also the questions in Part III. and to omit those in Part I., at any rate until they have done what they can of the rest of the paper.

Candidates are required to be clear in their statements, and accurate in their reasoning; any symbols which conduce to clearness may be used. When use is made of the result of a preceding proposition the fact should be stated, but the number of the proposition need not be given.

PART I.

- I. If two sides of a triangle are equal, the angles opposite to them shall be equal.
- The four sides of a quadrilateral $ABCD$ are equal to one another. Prove that the diagonal AC bisects the angles BAD and BCD , and that those angles are equal to one another.
- II. Two equal isosceles triangles are drawn on opposite sides of the same base. Show that the four-sided figure so formed is a rhombus.

- III. Divide a given straight line into two parts so that the rectangle contained by the whole line and one of the parts may be equal to the square on the other part.
- IV. Prove that equal straight lines in a circle are equally distant from the centre.

From a point without a circle draw a line cutting the circle such that the part intercepted by the circle may have a given length. How many such lines can be drawn? Under what conditions could one only be drawn?

- V. Inscribe a regular quindecagon in a given circle.

PART II.

- VI. Parallelograms on the same base and between the same parallels are equal to one another.

$ABCD$ is a parallelogram. The sides AB and BC are bisected at E and F . Show that the area of the parallelogram $ABCD$ is eight times that of the triangle EBF .

- VII. The angle at the centre of a circle is double of the angle at the circumference on the same arc.

AB is a chord of a circle whose centre is O . The smaller of the arcs AB is bisected at E . Prove that the angle EAB is the fourth part of the angle AOB .

PART III.

- VIII. If the vertical angle of a triangle be bisected by a straight line which cuts the base, the segments of the base shall have to one another the same ratio as the remaining sides of the triangle.

P is a point in the side MN of a triangle LMN . PQ and PR are drawn bisecting the angles LPN and LPM , meeting LN and LM in Q and R . If QR is then parallel to MN prove that MN is bisected at P .

- IX. If two straight lines are parallel, then if one of them is perpendicular to a plane, the other is perpendicular to the same plane.

- X. Prove that $\log_m n = \frac{1}{\log_n m}$

Find the value of $\log 2$ and $\log 13$ having given that $\log 2 \cdot 08 = \cdot 3180633$ and $\log 65 = 1 \cdot 8129134$.

- XI. Having given the lengths of the sides of a triangle obtain a formula which will determine the value of the cosine of one of the angles.

Show that if in any triangle

$$4\cos C \sin^2 A = 2\sin^2 B \cos 2C + \sin 2B \sin 2C + 2\sin^2 A \text{ then } a=b.$$

- XII. Having given $c=6$, $b=3\sqrt{2}$ ($\sqrt{3}-1$) and $C=75^\circ$, solve the triangle.

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DIVISION B.

8. APPLIED MATHEMATICS.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Give a geometrical construction for finding the lines of action of two forces 2 and 4 which are in equilibrium with a force 5 whose point of application and line of action are known.
- II. The length of an inclined plane is 10 ft. and its height 6 ft. Into what two parts must a weight of 64 lbs. be divided so that one part hanging over the top of the plane may balance the other resting on the plane?
- III. Four pieces of wood of uniform nature and section are put together so as to form a capital **E**. If their length be 5 ft., 4 ft., 4 ft., and 3 ft. respectively, find the position of the centre of gravity.
- IV. The coupling between two trucks consists of an iron rod with a righthanded screw cut on one end of it, and a lefthanded screw on the other. The screws turn in nuts attached to the trucks. If the distance between two consecutive threads in each screw be $\frac{3}{8}$ in., and the rod be turned by a force of 56 lbs. applied at the end of a lever 18 in. long, find the force with which the trucks are drawn together.
- V. With what velocity must a stone be thrown vertically upwards in order that 5 seconds may elapse before it returns to the point of projection?
- VI. What connection is there between the length of a pendulum and its time of vibration? Compare the rate of vibration

of a pendulum whose length is 5 ft. with the rate of one whose length is 3 ft.

- VII. A tramcar weighing 1 ton travels at the rate of 8 miles an hour. Find the energy wasted every time it is stopped. What becomes of this waste energy?
- VIII. A body floats in distilled water with $\frac{1}{2}$ of its volume above the surface. What portion of its volume would be immersed were it to float in a liquid whose specific gravity = 1.25?
- IX. At what depth in the sea is the pressure three times as great as that at a depth of 10 ft., the water barometer being 33 ft. high?

DIVISION B.

9. CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

[N.B.—Candidates are expected to write formulæ and equations wherever possible.]

- I. Three glass jars contain gaseous hydrochloric acid, hydrobromic acid, and hydriodic acid respectively. How would you identify them?
- II. Glass vessels cannot be used for experiments with many fluorine compounds; why not? The gas issuing from a glass vessel in which hydrofluoric acid is gently warmed is passed into water. Explain what takes place.
- III. Describe the action of heat on ammonium chloride, ammonium nitrate, and ammonium nitrite.
- IV. Describe the action of nitric acid on copper, tin, and amorphous phosphorus.
- V. Copper is heated with strong sulphuric acid. State what you know of the products.
- VI. State what you know of the preparation of metallic sodium.
- VII. How could you distinguish between (a) mercurous and mercuric chloride; (b) ferrous and ferric chloride; (c) stannous and stannic chloride; (d) nitrous and nitric oxide.

- VIII. You are told that a solution contains either arsenic or antimony ; how would you determine which ?
- IX. How is the specific gravity of a substance soluble in water determined ?

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DIVISION B.

10. EXPERIMENTAL PHYSICS.

No candidates presented themselves in this subject.

DIVISION B.

II. BOTANY AND PHYSIOLOGY.

SECTION I. BOTANY.

PROFESSOR RALPH TATE, F.G.S., F.L.S.

Time—Two hours.

- I. Describe the seed, in respect to relationship of its constituent parts, as exhibited by that of a *pea* and an *oat*.
- II. Tabulate the principal kinds of indefinite inflorescence.
- III. What are resemblances and differences between the floral organs of a *pea* and a *wattle* ?
- IV. Define *rhizome*, *tuber*, *adventitious*, *aerial*, and *tap-root*.
- V. Describe a typical calyciflorous flower, and illustrate your answer by a diagram. Name six common plants of cultivation having such flowers.
- VI. Explain the functions of the stamens and roots of plants in active life.

DIVISION B.

II. BOTANY AND PHYSIOLOGY.

SECTION II. PHYSIOLOGY.

E. C. STIRLING, M.A., M.D.

Time—Two hours.

- I. Describe the structure of a tooth ; state its chemical composition and contrast it with that of bone.

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- II. Write what you know of the substance called Glycogen.
- III. Define and explain the term reflex action, illustrating it by reference to the factors concerned in the secretion of saliva.
- IV. Where is the Thoracic duct? What is the nature of its contents?
- V. Describe with a diagram the mode of origin of a spinal nerve. What results would follow the cutting of such a nerve?

DIVISION B.

**12. PHYSICAL GEOGRAPHY AND THE
PRINCIPLES OF GEOLOGY.**

PROFESSOR RALPH TATE, F.G.S., F.L.S.

Time—Three hours.

- I. Give an account of the origin of springs.
 - II. What is alluvium, and how is it formed?
 - III. Explain, as fully as you can, how each of the following was formed:—*Stalagmite, pumice, conglomerate, coal, limestone.*
 - IV.—Describe the various modes in which *ice* may act as a denuding agent.
 - V.—Draw a diagram showing horizontal beds of rolled pebbles overlying the denuded edges of limestone-bands, dipping at an angle of 45° . What inferences may be drawn from the section?
 - VI. Give a brief description of a volcanic eruption, enumerating the gaseous, liquid, and solid products which are given out from the crater.
 - VII. Describe the ordinary characters of a mineral-vein.
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LATIN.

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—

Neque ego vos hortor, quod saepe maiores vestri fecere, uti contra iniurias armati eatis. Nihil vi, nihil secessione opus est: necesse est suomet ipsi more praecipites eant. Occiso Tiberio Graccho, quem regnum parare aiebant, in plebem Romanam quaestiones habitae sunt: post C. Gracchi et M. Fulvi caedem item vestri ordinis multi mortales in carcere necati sunt: utriusque cladis non lex, verum libido eorum finem fecit. Sed sane fuerit regni paratio plebi sua restituere: quidquid sine sanguine civium ulcisci nequitur, iure factum sit. Superioribus annis taciti indignabamini aerarium expilari, reges et populos liberos paucis nobilibus vectigal pendere, penes eosdem et summam gloriam et maximas divitias esse: tamen haec talia facinora impune suscepisse parum habuere, itaque postremo leges, maiestas vestra, divina et humana omnia hostibus tradita sunt.

Write a short sketch of the development of political parties at Rome during the period of the Jugurthan War and those immediately preceding and following it.

Translate—

Scio ego, Quirites, plerosque non eisdem artibus imperium a vobis petere et postquam adepti sunt gerere: primo industrios supplicis modicos esse, dein per ignaviam et superbiam aetatem agere. Sed mihi contra ea videtur: nam quo pluris est universa res publica quam consulatus

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aut praetura, eo maiore cura illam administrari quam haec peti debere. Neque me fallit, quantum cum maximo vestro beneficio negoti sustineam. Bellum parare simul et aerario parcere, cogere ad militiam eos, quos nolis offendere, domi, forisque omnia curare, et ea agere inter invidos occursantis factiosos, opinione, Quirites, asperius est. Ad hoc, alii si deliquere, vetus nobilitas, maiorum fortia facta, cognatorum et affinium opes, multae clientelae, omnia haec praesidio adsunt: mihi spes omnes in memet sitae, quas necesse est virtute et innocentia tutari: nam alia infirma sunt. Et illud intellego, Quirites, omnium ora in me conversa esse, aequos bonosque favere—quippe mea bene facta rei publicae procedunt—, nobilitatem locum invadendi quaerere.

Give an account of the after-career of Marius. Say what you know of the constitution of the Roman Legion at this period.

Translate—

Non, quo more piris vesci Calaber iubet hospes,
Tu me fecisti locupletem. Vescere sodes.
Iam satis est. At tu quantum vis tolle. Benigne.
Non invisā feres pueris munuscula parvis.
Tam teneor dono, quam si dimittar onustus.
Ut libet; haec porcis hodie comedenda relinques.

Write notes on—Locupletem, sodes, benigne.

Translate—

Cervus equum pugna melior communibus herbis
Pellebat, donec minor in certamine longo
Imploravit opes hominis frenumque recepit;
Sed postquam victor violens discessit ab hoste,
Non equitem dorso, non frenum depulit ore.
Sic, qui pauperiem veritus potiore metallis
Libertate caret, dominum vehit improbus atque
Serviet aeternum, quia parvo nesciet uti.
Cui non conveniet sua res, ut calceus olim,
Si pede maior erit, subvertet, si minor, uret.

Give the meanings of the following words and phrases:—
Genibus minor—mediastinus—calo—quaere peregrinum—
nummos alienos pascet—rerum mediocriter utilium—
nil intra est oleam nil extra est in nuce duri.

Translate—

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Scriptor, abhinc annos centum qui decidit, inter
 Perfectos veteresque referri debet, an inter
 Viles atque novos? Excludat iurgia finis.
 Est vetus atque probus centum qui perficit annos.
 Quid, qui deperit minor uno mense vel anno,
 Inter quos referendus erit? veteresne poëtas,
 An quos et praesens et postera respuat aetas?
 Iste quidem veteres inter ponetur honeste,
 Qui vel mense brevi vel toto est iunior anno.
 Utor permissa caudaeque pilos ut equinae
 Paulatim vello et demo unum, demo et item unum,
 Dum cadat elusus ratione ruentis acervi,
 Qui redit in fastos et virtutem aestimat annis,
 Miraturque nihil, nisi quod Libitina sacravit.
 Ennius et sapiens et fortis et alter Homerus,
 Ut critici dicunt, leviter curare videtur,
 Quo promissa cadant et somnia Pythagorea
 Naevius in manibus non est et mentibus haeret
 Paene recens? Adeo sanctum est vetus omne poëma.

Translate—

Prudens emisti vitiosum, dicta tibi est lex:
 Insequeris tamen hunc et lite moraris iniqua?
 Dixi me pigrum proficiscenti tibi, dixi
 Talibus officiis prope mancum, ne mea saevus
 Iurgares ad te quod epistola nulla rediret.
 Quid tum profeci, mecum facientia iura
 Si tamen attentas? Quereris super hoc etiam, quod
 Expectata tibi non mittam carmina mendax.

Also—

At qui legitimum cupiet fecisse poëma,
 Cum tabulis animum censoris sumet honesti;
 Audebit, quaecunque parum splendoris habebuit
 Et sine pondere erunt et honore indigna ferentur,
 Verba movere loco, quamvis invita recedant
 Et versentur adhuc intra penetralia Vestae.
 Obscurata diu populo bonus eruet atque
 Proferet in lucem speciosa vocabula rerum,
 Quae priscis memorata Catonibus atque Cethegis
 Nunc situs informis premit et deserta vetustas;
 Adsciscet nova, quae genitor produxerit usus.

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Write notes on—

Cui lecta potenter erit res
In verbis serendis
Voti sententia compos
Descriptas servare vices
Socco dignis
Proprie communia dicere
Reddere qui voces jam scit puer
Vilem certavit ob hercum
Dominantia nomina.

Translate—

Si forte necesse est
Indiciis monstrare recentibus abdita rerum,
Fingere cinctutis non exaudita Cethegis
Continget, dabiturque licentia sumpta pudenter ;
Et nova fictaque nuper habebunt verba fidem, si
Graeco fonte cadent, parce detorta.

Explain in each of the above passages its connection with the context of the letter from which it is taken.

GREEK.

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—

Σὺ δ' ὁ σεμννόμενος ἀνὴρ καὶ διαπτύων τοὺς ἄργους σκόπει πρὸς ταύτην ποίᾳ τινὶ κέχρησαι τύχῃ, δι' ἣν παῖς μὲν ὢν μετὰ πολλῆς ἐνδείας ἐπράφης ἅμα τῷ διδασκαλείῳ προσεδρεύων, τὸ μέλαν τρίβων καὶ τὰ βάθρα σπογγίζων καὶ τὸ παιδαγωγεῖον κορῶν, οἰκέτου τάξιν, οὐκ ἐλευθέρου παιδὸς ἔχων, ἀνὴρ δὲ γενόμενος τῇ μητρὶ ἐσκευωροῦ, τὰς βίβλους ἀνεγίνωσκας καὶ τἄλλα συνσκευόρου, τὴν μὲν νυκτα νεβρίζων καὶ κρατηρίζων καὶ καθαίρων τοὺς τελουμένους καὶ ἀπομάττων τῷ πληρῷ καὶ τοῖς πιτύροις καὶ ἀνιστὰς ἀπὸ τοῦ καθαρμοῦ κελεῶν λέγειν “ ἔφυγον κακόν, εὖρον ἄμεινον,” ἐπὶ τῷ μηδένα πρόποτε τηλικούτ' ὀλολύξαι σεμννόμενος (καὶ ἔγωγε νομίζω· μὴ γὰρ οἴεσθ' αὐτὸν φθέγγεσθαι μὲν οὕτω μέγα, ὀλολύξειν δ' οὐχ ὑπέρλαμπρον), ἐν δὲ ταῖς ἡμέραις τοὺς καλοὺς θιάσους ἄγων διὰ τῶν ὁδῶν,

τοὺς ἐστεφανωμένους τῷ μαράθῳ καὶ τῇ λεύκῃ, τοὺς ὄφει
τοὺς παρείας θλίβων καὶ ὑπὲρ τῆς κεφαλῆς αἰωρῶν, καὶ
βοῶν εὐοῖ σταβοῖ, καὶ ἐπορχούμενος ὕψι ἄττης ἄττης ὕψι,
ἐξάρχος καὶ προηγεμὼν καὶ, κιττοφόρος καὶ λικνοφόρος καὶ
τοιαῦτα ὑπὸ τῶν γραδίων προσαγορευόμενος, μισθὸν
λαμβάνων τούτων ἔνθρυπτα καὶ στρεπτοὺς καὶ νεήλατα,
ἐφ' οἷς τίς οὐκ ἂν ὡς ἀληθῶς αὐτὸν εὐδαιμονίσειε καὶ τὴν
αὐτοῦ τύχην; ἐπειδὴ δ' εἰς τοὺς δημότας ἐνεγράφησ, εὐθέως
τὸ κάλλιστον ἐξελέξω τῶν ἔργων, γραμματεῦν καὶ
ὑπηρετεῖν τοῖς ἀρχιδίοις.

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—Demosthenes de Corona, p. 258-261.

Also—

πότερόν σε τις, Αἰσχίνη, τῆς πόλεως ἔχθρον ἢ ἐμὸν
εἶναι φῆ; ἐμὸν δῆλον ὅτι. εἶτα οὐ μὲν ἦν παρ' ἐμοῦ δίκη
κατὰ τοὺς νόμους ὑπὲρ τούτων λαβεῖν εἴ περ ἠδίκουν,
ἐξέλειπες, ἐν ταῖς εὐθύναις, ἐν ταῖς γραφαῖς, ἐν ταῖς ἄλλαις
κρίσεσιν οὐ δ' ἐγὼ μὲν ἀθῶος ἅπασι, τοῖς νόμοις, τῷ
χρόνῳ, τῇ προθεσμίᾳ, τῷ κεκρίσθαι περὶ πάντων πολλακίς
πρότερον, τῷ μηδεπώποτε ἐξελεγχθῆναι μηδὲν ἡμῶς ἀδικῶν,
τῇ πόλει δ' ἢ πλεον ἢ ἔλαττον ἀνάγκη τῶν γε δημοσίων
πεπραγμένων μετεῖναι τῆς δόξης, ἐνταῦθα ἀπήντηκας; ὄρα
μὴ τούτων μὲν ἔχθρὸς ἦς, ἐμοὶ δὲ προσποιῆ.

—Demosthenes de Corona, p. 124-126.

Mention a few of Demosthenes' other speeches, giving a short account of their subject, and add a sketch of the history of the "De Corona."

Write explanatory notes on the words—γραφὴ, τριηραρχία, ἀπήρεια, κατάγειν, κλήτορες, συνδικος, σομμόριαι, γραφῶ, γράψομαι.

Translate—

ἀλλ', ὦ γεραῖέ, φράζ', ἐπεὶ πρέπων ἔφους
πρὸ τῶνδε φωνεῖν, τίμη τρόπῳ καθέστατε,
δείσαντες, ἢ στέρξαντες ὡς θέλοντος ἂν
ἐμοῦ προσαρκεῖν πᾶν; δυσάληγτος γὰρ ἂν
εἶην, τοιάνδε μὴ οὐ κατοικτείρων ἔδραν.

—Sophocles Oedipus Rex, v. 9-13.

ὦ πόποι, ἀνάριθμα γὰρ φέρω
πήματα· νοσεὶ δὲ μοι πρόπας
στόλος, οὐδ' ἐνὶ φροντίδος ἔγχος,
ὦ τις ἀλέξεται. οὔτε γὰρ ἔκγονα

κλυτᾶς χθονὸς αἴξεται, οὔτε τόκοισιν
 ἱγίων καμάτων ἀνέχουσι γυναῖκες·
 ἄλλον δ' ἂν ἄλλῃ προσίδοις ἄπερ εὔπτερον ὄρνιν
 κρεῖσσον ἀμαιμακέτου πυρὸς ὄρμενον
 ἀκτὰν πρὸς ἐσπέρου θεοῦ·
 ὦν πόλις ἀνάριθμος ὄλλυται·

—Sophocles Oedipus Rex, v. 165-174.

κεῖ μὲν φοβεῖται, τοῦπικγῆμ' ὑπεξελὼν
 αὐτὸς καθ' αὐτοῦ· πείσεται γὰρ ἄλλο μὲν
 ἄστεργές οὐδέν, γῆς δ' ἀπεισιν ἀβλαβής·

—Sophocles Oedipus Rex, v. 218-220

στιγνὸς μὲν εἶκων δῆλος εἶ, βαρὺς δ' ὅταν
 θυμοῦ περάσῃς. αἱ δὲ τοιαῦται φύσει
 αὐταῖς δικαίως εἰσὶν ἀλγισται φέρειν.

—Sophocles Oedipus Rex, 643-645.

κἀγὼ 'πακούσας ταῦτα, τὴν Κορινθίαν
 ἄστροις τὸ λοιπὸν ἐκμετρούμενος χθόνα
 ἔφευγον ἔνθα μήποτ' ὀψοίμην κακῶν
 χρησμῶν ὀνειδῆ τῶν ἐμῶν τελούμενα.

—Sophocles Oedipus Rex, v. 759-769

ἀλλ' ὡς φανέν γε τοῦπος ᾧδ' ἐπίστασο,
 οὐκ ἔστιν αὐτῷ τοῦτό γ' ἐκβαλεῖν πάλιν.
 πόλις γὰρ ἤκουσ', οὐκ ἐγὼ μόνη, τάδε.
 εἰ δ' οὔν τι κάκτρεπιο τοῦ πρόσθεν λόγου,
 οὔτοι ποτ' ὤναξ, σόν γε Λαῖου φόνον,
 φανεῖ δικαίως ὀρθόν, ὃν γε Λοξίας
 διεῖπε χρῆναι παιδὸς ἐξ ἐμοῦ θανεῖν.
 καίτοι νιν οὐ κείνός γ' ὀ δύστηνός ποτε
 κατέκταν', ἀλλ' αὐτὸς ἀρούθην ὤλετο.
 ὥστ' οὐχὶ μαντείας γ' ἂν οὔτε τῆδ' ἐγὼ
 βλέψαιμ' ἂν οὔνεκ' οὔτε τῆδ' ἂν ὕστερον.

—Sophocles Oedipus Rex, v. 813-823.

ἐφευρέ σ' ἄκονθ' ὁ πάνθ' ὄρων χρόνος,
 δικάζει τ' ἄγαμον γάμον πάλαι
 τεκνοῦντα καὶ τεκνούμενον.
 ἰὼ Λαϊήϊον τέκνον,
 εἶθε σ', εἶθε σε
 μήποτ' εἰδόμαν.
 δύρομαι γὰρ ὡς
 περίαλλ' ἱακχίω

ἐκ στομάτων. τὸ δ' ὀρθὸν εἰπ-
εῖν, ἀνέπνευσά τ' ἐκ σέθεν
καὶ κατεκοίμησα τοῦμόν ὄμμα.

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—Sophocles Oedipus Rex, v. 1174-1184.

φοιτᾷ γάρ, ἡμᾶς ἔγχος ἕξαιτῶν πορεῖν,
γυναῖκά τ' οὐ γυναῖκα, μητρῶαν δ' ὅπου
κίχιοι διπλῆν ἄρουραν οὐ τε καὶ τέκνων.
λυσσῶντι δ' αὐτῷ δαιμόνων δείκνυσσι τις·
οὐδεὶς γὰρ ἀνδρῶν, οἱ παρῆμεν ἐγγύθεν.
δεινὸν δ' αὔσας, ὡς ὑψηγοῦ τινός,
πύλαις διπλαῖς ἐνήλατ'· ἐκ δὲ πυθμένων
ἔκλινε κοῖλα κλῆθρα, κάμππτει στέγη.
οὐδὲν δὲ κρεμαστὴν τὴν γυναῖκα ἔσειδομεν,
πλεκταῖς ἐύραις ἐμπεπλεγμένην.

—Sophocles Oedipus Rex, v. 1217-1226.

Write out a scheme of the Iambic Trimeter. Mention and describe some other kinds of metre used by the Tragedians.

How do you account for the use of the Doric dialect in Athenian Tragedy? Quote some specimens of the Doric in the Oedipus Tyrannus.

Criticize the plot of this Tragedy. What others have been written on the same story?

LATIN AND GREEK GRAMMAR AND COM- POSITION.

PROFESSOR KELLY, M.A.

Time—Three hours.

I. Define accurately what is meant by the Gerund and Gerundive in Latin. Point out the difference in the uses of the Gerund in the following examples:—

Audendo res Romana crevit.

Haec ad iudicandum sunt facillima.

Cæsar oppidum ad diripiendum militibus concessit.

Navis inchoandi exordium cepit.

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- II. "The Gerundive or passive use arises from that of the Gerund by a sort of attraction." Exemplify this statement by translating into Latin, "Virtue is best seen in the despising of pleasure."
- III. The accusative case in Latin is used in three senses. (1) It expresses the compass or extent of an action or quality. (2). The goal to which motion is directed. (3). The direct object of action. Compose or quote sentences of Latin illustrating these cases.
- IV. Explain the construction in the following :—Admonemus cives nos eorum esse et, si non easdem opes habere eandem tamen patriam incolere; and translate accurately—
 Scio quid quaeras, scio quod quaeris.
 Dico quod sentio; dico quid sentiam.
 Utrum placet roga; utrum placeat roga.
- V. Write down a list of verbs in Greek and Latin which take two accusatives. Form sentences illustrating this usage, and distinguish between the "Internal" and "External" accusatives. Explain what is meant by the terms "Internal" and "External."
- VI. Write notes on the syntax of the following sentences :—
 Οὐδένι ὄψιν οὐκ ἀπεκρίνετο.
 Ὑπέρφυῶς ὡς χαίρω.
 Τοῦτο διαφέρω τῶν πολλῶν.
 Γυναικὸς οὐδαμῶς ἠσσητέα.
- VII. Give a scheme of the constructions following the conjunction *πρίν* when preceded by a negative and an affirmative clause respectively.
- VIII. State a few instances of the use of *οὐ* privative with verbs.
- IX. Write down the tenses in use of the following verbs :—
κείμαι, ἐπίσταμαι, οἶδα, ἴημι, ἀκούω; and give in full the imperfect tense of the indicative mood of *ζάω* and *κοιμάω*.
- X. Give the meaning of the prepositions *παρά, προς,* and *ὑπό,* with their different cases.

For Latin Prose—

A few days after the first of January letters reached the palace announcing a mutiny of the troops of Upper Germania. They demanded another Emperor in the

place of Galba, but left the choice to the senate and the people. Galba had already contemplated adopting an associate in the empire, and had discussed the matter with the most intimate of his friends; for with the indecision of old age, or possibly from his natural character, he rarely acted on his own counsels, and was more commonly an instrument in the hands of others. No time was now to be lost. Their deliberations ended in the choice of Piso, to whom, from the antique severity of his habits and gravity of his demeanour, Galba was personally inclined. But these qualities were too similar to those of the Emperor himself to reassure such among the citizens as trembled at his growing unpopularity.

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For Greek Prose—

Meanwhile Pizarro was slowly advancing, being so watchful against any surprise of the enemy that his men marched in their armour. He too went armed and with his lance in his hand. They had to make long circuits, for it was winter, and the rivers being swollen, they were obliged to ford them high up in the source of their streams. Pizarro strictly forbade his men to rob or distress the natives; and having chastised some of those who had offended in this way, many of his followers were much displeased, and remained behind, hidden in the Indian villages which the army passed through.

ENGLISH LITERATURE AND COMPOSITION.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Quote from the *Lycidas* any lines which you consider especially admirable.
- II. Reproduce as accurately as you can, and criticise, Dr. Johnson's estimate of French character in his *London*.
- III. Enumerate the *Passions* described in Collins' celebrated Ode.
- IV. "Can storied urn, or animated bust,
Back to its mansion call the fleeting breath,
Can Honour's voice provoke the silent dust,
Or Flatt'ry soothe the dull cold ear of Death?"

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In what poem are these lines to be found? Write notes on the words *storied*, *animated*, *provoke*.

V. Give the context of the following quotations :—

(a) "Ill fares the land, to hastening ills a prey,
Where wealth accumulates, and men decay."

(b) "But human bodies are sic fools,
For a' their colleges and schools,
That when nae real ills perplex them,
They make enow themselves to vex them."

(c) Our birth is but a sleep and a forgetting."

(d) "My very chains and I grew friends,
So much a long communion tends
To make us what we are :—even I
Regain'd my freedom with a sigh."

VI. Examine with special reference to their works the literary merits of *Hooker*, *Hobbes*, *Thomas Fuller*, *Jeremy Taylor*, and *Sir William Temple*.

VII. Name the authors of the following :—

The Defence of Poesy; *The Complete Angler*; *Religio Medici*; *The History of John Bull*.

VIII. Write an essay on either of the following subjects :—

(a) The influence of Dryden on the development of English prose.

(b) Swift's *Humour* contrasted with the *Humour* of Addison.

ENGLISH PHILOLOGY.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Compare the pronunciation of English vowels at the present day with their pronunciation in Old English, and give three or four instances of a survival in Modern English of the more ancient usage.
- II. In comparing cognate forms of Sanscrit and English we find the letter *p* in the former represented by *f* in the latter; *d* by *t*; and *k* by *h*. Give examples of this law.
- III. Mention some of the most important inflectional forms in English which existed in King Alfred's time and have now disappeared.

IV. In what parts of England did the Danes exercise most potently an influence upon English? State what you know about the Five Danish Burghs. Write down five English words of Danish origin.

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V. "We may often find an old pedigree for a word that is now reckoned slangy." Give five instances of this.

VI. Write out in full the present indicative of *healdan*.

VII. Give some account of the condition of English in the reign of King Stephen and translate the following passage from the Peterborough Chronicle into Modern English:—

Tha the suikes undergaeton that he milde man was and softe and god and na justise ne dide. tha diden hi alle wunder. Hi hadden him manred maked and athes suoren. ac hi nan treoths ne heolden. Alle hi waeron forsworen, and here treoths forloren. for aeuric rice man his castles makede and agaenes him holden

VIII. Discuss the influence upon English of:—

The Introduction of Christianity; The Norman Conquest; The Revival of Learning; The Progress of Journalism.

FRENCH.

MR. D'ARENBERG, M.A.

Time—Three hours.

I. Translate—

Mes jeunes cavaliers, que faites-vous céans?—
 Quand nous avions le Cid et Bernard, ces géants
 De l'Espagne et du monde allaient par les Castilles
 Honorant les vieillards et protégeant les filles.
 C'étaient des hommes forts et qui trouvaient moins lourds
 Leur fer et leur acier que vous votre velours.
 Ces hommes-là portaient respect aux barbes grises,
 Faisaient agenouiller leur amour aux églises,
 Ne trahissaient personne, et donnaient pour raison
 Qu'ils avaient à garder l'honneur de leur maison.
 S'ils voulaient une femme, ils la prenaient sans tache,
 En plein jour, devant tous, et l'épée, ou la hache
 Ou la lance à la main!—Et quant à ces félons
 Qui le soir, et les yeux tournés vers leurs talons,
 Ne fiant qu'à la nuit leurs manœuvres infâmes,

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Par derrière aux maris volent l'honneur des femmes,
J'affirme que le Cid, cet aïeul de nous tous,
Les eût tenus pour vils et fait mettre à genoux,
Et qu'il eût dégradant leur noblesse usurpée,
Souffleté leur blason du plat de son épée !
Voilà ce que feraient, j'y songe avec ennui,
Les hommes d'autrefois aux hommes d'aujourd'hui.
—Qu'êtes-vous venus faire ici ? C'est donc à dire
Que je ne suis qu'un vieux dont les jeunes vont rire ?
On va rire de moi, soldat de Zamora ?
Et quand je passerai, tête blanche, on rira ?
Ce n'est pas vous du moins qui rirez !

Also—

C'est donc là mon salaire, mon hôte !
—Bon seigneur, va-t'en voir si ta muraille est haute,
Si la porte est bien close et l'archer dans sa tour,
De ton château pour nous fais et refais le tour,
Cherche en ton arsenal une armure à ta taille,
Ressaye à soixante ans ton harnois de bataille,
Voici la loyauté dont nous paierons ta foi !
Tu fais cela pour nous, et nous ceci pour toi !
Saints du ciel !—J'ai vécu plus de soixante années,
J'ai rencontré parfois des âmes effrénées,
J'ai souvent, en tirant ma dague du fourreau,
Fait lever sur mes pas de gibiers de bourreau,
J'ai vu des assassins, des monnoyeurs, des traîtres,
De faux valets à table empoisonnant leurs maîtres,
J'en ai vu qui mouraient sans croix et sans pater,
J'ai vu Sforce, j'ai vu Borgia, je vois Luther ;
Mais je n'ai jamais vu perversité si haute
Qui ne'eût craint le tonnerre en trahissant son hôte !
Ce n'est pas de mon temps.—Si noire trahison
Pétrifie un vieillard au seuil de sa maison,
Et fait que le vieux maître, en attendant qu'il tombe,
A l'air d'une statue à mettre sur sa tombe !
Maures et Castillans ! Quel est cet homme-ci !

Also—

Les estampes et les tableaux dont je viens de parler
pâlissent et disparaissent au premier coup d'œil qu'on jette
sur le tableau suivant ; les ouvrages immortels de Raphaël,
de Corrège et de toute l'école d'Italie, ne soutiendraient
pas le parallèle : aussi je le garde toujours pour le dernier
morceau, pour la pièce de réserve, lorsque je procure à
quelque curieux le plaisir de voyager avec moi ; et je puis

assurer que depuis que je fais voir ce tableau sublime aux connaisseurs et aux ignorants, aux gens du monde, aux artisans, aux femmes et aux enfants, aux animaux mêmes, j'ai toujours vu les spectateurs quelconques donner, chacun à sa manière, des signes de plaisir et d'étonnement, tant la nature y est admirablement rendue.

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Also—

Il y avait une heure que l'on était à table, et l'on parla de nouveau du concert du théâtre Feydeau. Le vieux petitmaître demanda à M. Chenu s'il m'accorderait la permission d'y venir ; M. Chenu répondit que tout ce qui m'amuserait lui conviendrait toujours beaucoup, et, d'une voix unanime, les jeunes lui déclarèrent qu'il était le meilleur des maris. Il prit l'éloge au sérieux, et allait entrer dans des détails, quand je l'interrompis pour déclarer que mon intention était de rentrer chez moi. Je ne voulais ni m'exposer à une scène publique, ni procurer un triomphe complet à ces dames, dont les yeux brillaient déjà du plaisir de me donner un spectacle. Je fus entourée, pressée, sollicitée ; je résistai opiniâtrément. La maîtresse de la maison m'offrit de me faire reconduire, ce que j'acceptai, et M. Chenu partit avec la société pour le concert.

II. Translate—

La première nuit fut délicieuse. La mer était calme comme un lac encaissé dans les montagnes de la Suisse. A mesure que nous nous éloignons du rivage, nous voyions les langues de feu des fenêtres du palais et des quais de Naples s'ensevelir sous la ligne sombre de l'horizon. Les phares seuls nous montraient la côte. Ils pâlissaient devant la légère colonne de feu qui s'élançait du cratère du Vésuve. Pendant que le pêcheur jetait et tirait le filet, et que l'enfant, à moitié endormi, laissait vaciller sa torche, nous donnions de temps en temps une faible impulsion à la barque, et nous écoutions avec ravissement les gouttes sonores de l'eau qui ruisselait de nos rames tomber harmonieusement dans la mer, comme des perles dans un bassin d'argent.

Nous avons doublé depuis longtemps la pointe du Pausilippe, traversé le golfe de Pouzzoles, celui de Baïa, et franchi le canal du golfe de Gaète, entre le cap Misène et l'île de Procida. Nous étions en pleine mer ; le soleil nous gagnait. Nous nous couchâmes sous nos bancs, à côté de l'enfant.

Le pêcheur étendit sur nous la lourde voile pliée au fond de la barque. Nous nous endormîmes ainsi entre deux lames, bercés par le balancement insensible d'une mer qui faisait à peine incliner le mât. Quand nous nous réveillâmes, il était grand jour.

- III. Give list of verbs conjugated on model of recevoir.
 IV. How are new verbs formed in French? Form verbs from *Chemin, Napoleon, Mince*.
 V. Give rules for agreement of Past Participles, and translate into French:—

What unknown treasures! What new riches! Flowers, fruits, grains brought to infinite perfection; useful animals of every kind transported, propagated, augmented without number; the hurtful kinds reduced, confined, bound. Gold, and iron still more necessary than gold, drawn from the bowels of the earth; torrents restrained; rivers directed, embanked; the ocean subdued, explored, traversed from one Hemisphere to the other.

- VI. Translate into English—

Il est difficile de se mettre à l'abri des coups de langue.
 Pour un coup d'essai ce n'est pas mal.
 Buons le coup d'étrier.
 Ce n'était pas là un grand coup de filet.
 Feu votre mère unissait les charmes de l'esprit à la bonté du cœur.
 Prenez garde à ce chaland il joue les doigts.
 Nous savons qu'il joue de son reste.
 Du train qu'il y va il mangera de petites croûtes dans sa vieillesse.
 Vous n'aimez pas ceci vous mangez du bout des dents.
 Bien des jeunes gens mangent leur blé en herbe.

GERMAN.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Translate—

So war mein Garten auch in der ganzen Gegend berühmt, und jeder Reisende stand und sah durch die rothen Stadeten nach den Bettlern von Stein und nach den farbigen Ziwergen.

Wem ich den Kaffee dann gar in dem herrlichen Grottenwert
reichte,

Das nun freilich verstaubt und halb verfallen mir dasteht,
Der erfreute sich hoch des farbig schimmernden Lichtes
Schöngeordneter Muscheln; und mit glendetem Auge
Schaute der Kenner selbst den Bleiglanz und die Korallen.
Eben so ward in dem Saale die Malerei auch bewundert,
Wo die gepuzten Herren und Damen im Garten spazieren
Und mit spitzigen Fingern die Blumen reichen und halten.
Ja, wer sähe das jetzt nur noch an! Ich gehe verdrießlich
Raum mehr hinaus; denn Alles soll anders sein und geschmackvoll,
Wie sie's heißen, und weiß die Latten und hölzernen Bänke.

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II. Translate—

O, mein Vater! Sie ist nicht hergelaufen, das Mädchen,
Keine, die durch das Land auf Abenteuer umherschweift,
Und den Jüngling bestriekt, den unerfahrenen, mit Ränken.
Nein, das wilde Geschick des allverderblichen Krieges,
Das die Welt zerstört und manches feste Gebäude
Schon aus dem Grunde gehoben, hat auch die Arme vertrieben.
Streifen nicht herrliche Männer von hoher Geburt nun im
Elend?

Fürsten stehen vermunmt, und Könige leben verbannet.
Ach, so ist auch sie, von ihren Schwestern die beste,
Aus dem Lande getrieben; ihr eignes Unglück vergessend,
Steht sie Anderen bei, ist ohne Hülfe noch hülfreich.
Groß sind Jammer und Noth, die über die Erde sich breiten;
Sollte nicht auch ein Glück aus diesem Unglück hervorgehn,
Und ich, im Arme der Braut, der zuverlässigen Gattin,
Mich nicht erfreuen des Kriegs, so wie Ihr des Brandes Euch
freutet?"

III. Parse the following words in the passages quoted above—

- (a.) Wem, schöngeordneter, sähe, unerfahrenen, Ränken, manches, gehoben.
- (b.) Indicate any words of foreign origin in the same quotations, and suggest, where possible, equivalents in pure German.
- (c.) Illustrate the force of the following inseparable prefixes:—*ver*-, *zer*-, *ent*-, *wider*-, and give examples of cognate prefixes in English.
- (d.) In modern German verse all radical syllables are long, and all inflectional syllables are short.
Point out violations of this rule in the quotations from *Hermann and Dorothea* before you.
- (e.) Specify any peculiarities in the style of *Hermann and Dorothea*.

IV. Translate—

Ich habe ihn wieder! — Bin ich allein? — Ich will nicht umsonst allein sein. (Sie faltet die Hände.) Auch bin ich nicht allein! (Und blickt aufwärts). Ein einziger dankbarer Gedanke gen Himmel ist das vollkommenste Gebet! — Ich hab' ihn, ich hab' ihn! (Mit ausgebreiteten Armen). Ich bin glücklich! und fröhlich! Was kann der Schöpfer lieber sehen, als ein fröhliches Geschöpf! — (Franciska kommt.) Bist du wieder da, Franciska? — Er jammert dich? Mich jammert er nicht. Unglück ist auch gut. Vielleicht, daß ihm der Himmel alles nahm, um ihm in mir alles wieder zu geben!

V. Translate—

„Mein lieber Major von Tellheim!
Ich thue Euch zu wissen, daß der Handel, der mich um Eure Ehre besorgt machte, sich zu Eurem Vortheil aufgeklärt hat. Mein Bruder war des Nähern davon unterrichtet, und sein Zeugniß hat Euch für mehr als unschuldig erklärt. Die Hofstaatskasse hat Ordre, Euch den bewußten Wechsel wieder auszuliefern, und die gethanen Vorschüsse zu bezahlen; auch habe ich befohlen, daß alles, was die Feldkriegskassen wider Eure Rechnungen urgiren, niederschlagen werde. Meldet mir, ob Euch Eure Gesundheit erlaubt, wieder Dienste zu nehmen. Ich möchte nicht gern einen Mann von Eurer Bravour und Denkart entbehren. Ich bin Euer wohlaffectionirter König &c.“

VI. Parse the words underlined in the passages from Lessing.

VII. Describe briefly the plot of *Minna von Barnhelm*.

VIII. Translate—

Last winter I went in the evening to the canal, and heard something whine. I went down, caught at the voice, fancying I should save a child, and dragged a poodle out of the water. Good, however, thought I. The poodle came after me, but I was no lover of poodles. I drove him off—in vain. I beat him from me—in vain. At night I did not allow him into my room, he remained at the threshold. When he came near me, I kicked him; he yelped, looked at me, and wagged his tail. A bit of bread he has never received from my hand; and yet I am the only person he obeys and who dares touch him. He springs before me, and does his tricks before me unbidden. He is an ugly poodle, but really a good dog. If he goes on much longer, I shall cease to dislike the poodle.

PURE MATHEMATICS I.

PROFESSOR BRAGG, M.A.

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Time—Three hours.

- I. The first of a series of cogged wheels, working into each other in a straight line, has a certain number of teeth : the number of teeth in the second is to the number in the first as 3 to 4, the number in the third is to that in the second as 5 to 8, and the number in the fourth to that in the third as 2 to 5. If the wheels are set in motion, how many revolutions must each wheel make before they are simultaneously in their original positions.
- II. An embankment of which the top is in a horizontal plane has at the bottom a breadth of 140 feet and at the top a uniform breadth of 18 feet : the height of the top above the bottom is 40 feet : the embankment stretches straight across a gully whose sides slope at an angle of 45° and meet in a horizontal line at the bottom. How many cubic yards are there in the embankment ?
- III. Resolve into factors :—
- | | |
|-----|-----------------------------------|
| (1) | $4 a^2 b^2 - (a^2 + b^2 - c^2)^2$ |
| (2) | $x^3 - 8 x^2 + x - 8$ |
| (3) | $x^3 - 4x^2 + x + 6.$ |
- IV. If $x^6 - 2x^4 + 8x^3$ be the first three terms of an expression which is a perfect square, find the three remaining terms.
- V. If x be the sum of two numbers one of which varies directly as y , the other inversely as y^2 , and if when $y = 1$ $x = 0$, and when $y = 2$, $x = \frac{1}{2}$, what is the value of x when $y = -1$?
- VI. Find a formula for the sum of a number of terms in Geometrical Progression.
The middle points of the sides of an equilateral triangle are joined so as to form a second equilateral triangle. The middle points of the sides of the second are joined so as to form a third and so on to infinity. Find the sum of the areas of all these triangles.
- VII. If C_r denote the number of combinations of n things r together find the value of
1. $2. C_2 + 2. C_3 + 3.4. C_4 + \dots + n(n-1)C_n.$

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VIII. Solve the equations—

$$(i) \quad x^2 + y^2 = 5.$$

$$x + y = 1.$$

$$(ii) \quad a.(a^5)^y = (a^4)^x$$

$$\sqrt{a^x} \sqrt[3]{a^y} = a^3$$

$$(iii) \quad \frac{x + \sqrt{x}}{x - \sqrt{x}} = \frac{x(x-1)}{4}$$

IX. Find approximately in degrees and minutes the inclination to the horizon of a railway line which rises one foot in fifty.

X. If the sine of one angle of a triangle be $\frac{2}{3}$, and the tangent of another $\frac{1}{2}$, find the cosine of the third.

PURE MATHEMATICS II.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Parallelograms on the same base and between the same parallels are equal.
- II. If every side of a polygon be produced to meet each of the two sides which lie next but one to it, then in the resultant star-shaped figure all the angles at the points of the star, together with eight right angles, are equal to twice as many right angles as the polygon has sides.
- III. ABC is a triangle of which BC is the base. A number of triangles are drawn on the base BC , and in each the difference of the squares on the sides is equal to the difference of the squares on AB and AC . Show that the vertices of all these triangles lie either on the straight line drawn through A , perpendicular to BC , or on a second straight line. Where is the second straight line?
- IV. One circle cannot touch another internally in more than one point.

A circle touches another internally at the point A . A chord BC is drawn in the outer circle, touching the inner at the point D . Show that the angles BAD and CAD are equal.

V. Find a third proportional to two given straight lines.

- VI. $ABCD$ is a parallelogram. Through B is drawn a straight line, BEG , meeting AC in E , CD in F , AD in G —these three being produced, if necessary. Through D is drawn DK , parallel to BG , to meet AC in K . Show that $DK^2 = EF \cdot EG$.
- VII. Show how to draw a straight line perpendicular to a given plane from a given point without it.
- VIII. Prove that

$$\sin A + \sin B = 2 \sin \frac{A+B}{2} \cos \frac{A-B}{2}$$

- (i) assuming the formulæ for $\sin(A+B)$ and $\sin(A-B)$
 (ii) by a geometrical proof.

- IX. If $A = B + C$, show that
 $\sin^2 A = \cos^2 B + \cos^2 C - 2 \cos B \cos C \cos A$.
- X. Given that the angle A of a triangle $= 27^\circ$, and that the lengths of the two sides, including that angle, are 327 feet and 185 feet respectively, find the other two angles.
 $L \cot 13^\circ 30' = 10 \cdot 6196463$
 $\log 71 = 1 \cdot 8512583$
 $\log 2 = \cdot 3010300$
 $L \tan 49^\circ 7' = 10 \cdot 0626235$
 $L \tan 49^\circ 8' = 10 \cdot 0628788$.
- XI. Find all the values of θ which will satisfy the equation
 $1 - \cos 2\theta = 2(\cos a \cos \theta - \cos 2a)$.

APPLIED MATHEMATICS.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. If three forces in one plane act outwards at the middle points of the sides of a triangle, and in directions perpendicular to the sides, and each force is proportional to the length of the side to which it is perpendicular, show that the three are in equilibrium.
- II. A force p acts along the diagonal of a rhombus; the angle of the rhombus at an end of this diagonal is a . Resolve the force p into two components acting along the sides of the rhombus. Apply your result to the solution of the following problem:—

Four light rods are hinged together so as to form a non-reentrant quadrilateral, and at each angular point a force acts on the hinge proportional in magnitude to the cosine of half the angle, and in a direction bisecting the angle. Prove that, if the forces be all directed inwards, the rods will be in equilibrium for all shapes of the quadrilateral.

- III. A uniform lamina $A B C D$ of 2 lbs. weight, in the form of a parallelogram, stands with the side $A D$ on a horizontal plane. If the length of $A D$ be 4 ft., of $D C$ 3 ft., and the angle $A D C$ be 120° , find the least weight which, when suspended from C , will overturn the lamina.
- IV. Two roads which meet at a place A , make with each other an angle of 30° . Two men start from A at the same time, one along each road. If one of the men walks 4 miles an hour, the other 3, find their relative velocity.
- V. A stone is projected vertically upwards with a certain velocity. At the end of n seconds it is at a height of 136 feet above the point of projection. At the end of $2n$ seconds it is at a height of 144 feet. Find n , and the velocity of projection. The acceleration due to gravity may be taken as 32.
- VI. A circular brick chimney has to be built 50 ft. high, of exterior diameter 10 ft., and interior 6 ft. Find the time in which a 3-horsepower engine will raise all the bricks from the ground to their proper places, supposing it to work always at full power, and to be always lifting bricks. A cubic foot of brickwork weighs 130 lbs.
- VII. A ball, whose elasticity is $\frac{1}{2}$, falls vertically for one second, and then strikes a plane inclined at an angle of 30° to the horizon. After how long will it strike the plane again?
- VIII. It is suspected that a certain nugget is made up of gold and copper. If this be true, and if its specific gravity be 13.2, what is the percentage of copper? The specific gravity of gold is 19.6, and of copper 9.
- IX. A diving-bell with a capacity of 200 cubic feet rests on the bottom in water of 150 feet depth. If the height of the mercury barometer be 29.5 inches, and the specific gravity of mercury be 13.6, find how many cubic feet of air, at atmospheric pressure, are required to fill the bell.

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ANGAS ENGINEERING EXHIBITION.

PURE MATHEMATICS	} The same papers as set for the University Scholar- ships in March in these subjects.
APPLIED MATHEMATICS	
FRENCH	
GERMAN	
PHYSICAL GEOGRAPHY	} The same paper as set for the Special Senior Public Ex- amination in March for this subject.
AND GEOLOGY	

CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

- I. Electric sparks are passed through oxygen gas. What change in properties and constitution does the gas undergo?
- II. By what tests or characteristics would you recognise the following gases:—Nitrogen monoxide, sulphur dioxide, ammonia, chlorine?
- III. What conclusions would you draw with regard to the nature of the substances *a*, *b*, *c*, and *d* respectively, from the following experiments? When (*a*) is heated with strong sulphuric acid, red fumes are given off. When (*b*) is heated it yields nitrogen and water only. (*c*) Heated with oxide of copper yields water, carbon dioxide, and metallic copper. (*d*) Is a clear solution which, on addition of hydrochloric acid and a solution of a barium salt, gives a heavy white precipitate
- IV. Calculate the weight of ten litres of air (measured at 0° C and 760 m.m.) containing 21 per cent. of oxygen and 79 per cent. of nitrogen.

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- V. You are given samples of powdered wood charcoal, and bone charcoal. How would you distinguish one from the other?
- VI. In what forms of combination do the heavy metals usually occur in nature? Note briefly the general methods used for obtaining the metals from each kind of ore.
- VII. Describe briefly how potassium bichromate and permanganate are prepared. What is the effect of the latter upon the skin, and why is that effect produced?
- VIII.—Give some account of the class of substances known as the alums.

EXPERIMENTAL PHYSICS.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Describe briefly Atwood's Machine.

Equal weights being fastened to the two ends of the string, a small weight w is added to the weights on one side, so that motion ensues. After the weights have moved through a certain distance, the ascending weights pick up a weight $3w$ from a ring through which they pass. Find, by the laws of energy, how much further the weights will move before coming to rest. State carefully what causes will in the actual performance of the experiment prevent the attainment of complete accuracy.

- II. A smooth steel rod is made to revolve rapidly in a horizontal plane about a vertical axis of rotation through its middle point. On this rod slide two weights one of 20 grammes the other of 36. They are connected by a string. The former weight is 25 cm from the axis of rotation. Find where the other weight should be placed and how long the string should be in order that there may be equilibrium.

- III. A glass tube 30 cm long and open at both ends is plunged vertically to the depth of 20 cm in mercury. The top of the tube is then closed and the tube lifted up till its lower end is just under the surface of the mercury. If

the pressure of the atmosphere be equivalent to 72 *cm* of mercury find the height to which the mercury will rise in the tube.

- IV. The interior diameter of a copper ring is 18 *cm* at 10°C, that of an iron sphere is 18.05 *cm* at the same temperature. At what temperature will the sphere be able to pass through the ring? The coefficient of linear expansion of copper is .000017 and of iron .0000126.
- V. A copper vessel whose weight is 320 grammes and specific heat .095 contains 250 grammes of water. Their common temperature is 52°C. What weight of melting ice must be added to the water to bring the temperature of the whole to 12°C?
- VI. What are the nodes and ventral segments of a vibrating string? What correspond to them in a vibrating column of air?
- VII. A lamp and a candle are placed at a distance of 4.15 metres from one another. At what distance from the lamp must a screen be placed so that it may receive on that part of it which is in the straight line joining the two flames an equal quantity of light from the two sources?
- VIII. What quantity of electricity is taken as the unit? What is the force of repulsion between two small bodies 8 *cm* apart, the one charged with 5 units the other with 7 units of electricity. Find the work done in bringing them together.
- IX. Describe the tangent galvanometer and explain its name. If an instrument was made in Germany and the scale was graduated there so as to tell the number of amperes of current, would it read correctly in Adelaide where the intensity of the earth's magnetism is different? Explain your answer.
-

M A R C H , 1 8 8 9 .

THE ANGAS ENGINEERING SCHOLARSHIP.

PURE MATHEMATICS.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Show that the area of the triangle formed by the straight lines

$$x = a, y = mx + \frac{a}{m}, y = m'x + \frac{a}{m'}$$

$$\text{is } \frac{a^2}{2} (m - m') \left(1 - \frac{1}{mm'}\right)^2.$$

- II. Find the points in which the straight line $3x + y = 1$ meets the circle whose centre is at $(3, 4)$ and whose radius = 7. Find also the length of the part intercepted.
- III. Show that the radius of a circle which touches two given circles bears a constant ratio to the distance of its centre from the radical axis of the given circles.
- IV. If SY be the perpendicular from the focus S on the tangent at any point P of a parabola show that $SY^2 = SA \cdot SP$, A being the vertex. Find also the locus of Y .
- V. If a', y' be the co-ordinates of the middle point of a chord of the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$, show that the equation of the chord is
- $$\frac{xx'}{a^2} + \frac{yy'}{b^2} = \frac{x'^2}{a^2} + \frac{y'^2}{b^2}.$$
- VI. Given the centre of an ellipse and two tangents, find the locus of a focus.
- VII. If any line cuts a hyperbola and its asymptotes, prove that the intercept on the line between the curve and the asymptotes are equal.

- VIII. Find the co-ordinates of the centre and the lengths of the axes of the conic $x^2 + y^2 + xy + x + y = 1$.
- IX. Explain what is meant by trilinear co-ordinates. Show that if $la + m\beta + n\gamma = 0$ is perpendicular to $\gamma = 0$ then $n = m\cos A + l\cos B$.

Angus
Engineering
Scholarship,
March, 1889.

APPLIED MATHEMATICS.

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

- I. Determine the equations which express the necessary conditions of equilibrium for a system of forces in a plane acting upon a rigid body.

The poles supporting a lawn-tennis net are kept in a vertical position by guy ropes, one to each pole, which pass round pegs 2 ft. distant from the poles. If the coefficient of friction between the ropes and the pegs be $\frac{4}{3}$, show that the inclination of the latter to the vertical is not less than $\tan^{-1} \frac{2}{11}$, the height of the poles being 4 ft.

- II. Find the centre of mass of a circular arc.

A bar AB , of weight W , is divided into r equal parts, and at the successive points of division are placed weights $w, 2w, 3w, \dots, (r-1)w$. If the bar be now supported by two vertical props at A and B , find the pressure on these.

- III. If a particle acted on by any system of forces receive any virtual displacement whatever, show that the algebraical sum of the virtual work done by the different forces during the displacement is equal to the virtual work done by the resultant.

Six uniform heavy rods of the same length are freely jointed together, and one of them is fixed horizontally. A string is then fastened to the middle points of the upper and lower bars, of such a length that the bars form a regular hexagon. If w be the weight of a rod, show by the principle of virtual work that the tension of

the string is $3w$, and find the magnitude and direction of the strains on the four lower hinges.

- IV. Explain the meaning of the statement that the "dimensions of acceleration are $\frac{\text{length}}{(\text{time})^2}$ "

What are the dimensions of "Force" and "Work?"

An engine of 40 tons, running alone, experiences an acceleration of 2 foot second units. A train of 100 tons left to itself when in motion experiences a retardation of $\frac{1}{2}$ foot second units. The engine is coupled to the train. Find the tension of the coupling in pounds' weight.

- V. A person wishes to throw a stone so as to produce the greatest possible blow at a point in a smooth vertical wall, at a height h from the ground. His strength is sufficient to throw the stone vertically upwards to a height $2h$. Prove that he must throw from a point distant $2h$ from the foot of the wall, the resistance of the air and height of his hand in throwing being neglected.

- VI. Prove that the acceleration of a body moving with uniform velocity in a circle is directed towards the centre, and find its magnitude.

Is a railway train heavier when going east or when going west? Find what the difference is in the case of a train whose mass is 180 tons, travelling in latitude 60° with a velocity of 60 miles an hour?

- VII. Define the "metacentre" of a body floating in liquid, and explain its use in determining the nature of the equilibrium.

A right-angled triangular board floats in a fluid with its right angle immersed and hypotenuse horizontal; find its metacentre.

- VIII. Find the relation between the tension and pressure of a circular cylindrical vessel containing gas.

A cylindrical boiler is 10 ft. in diameter, and is to withstand a working pressure of 80 lbs. per square inch. Supposing the iron will stand a working tension of 5 tons to the sq. inch, what thickness of plate is necessary?

PHYSICS.

PROFESSOR BRAGG, M.A.

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Time—Three hours.

- I. The quantity of heat which the earth receives from the sun at mid-day is $\cdot 00003$ calories per square *cm* of surface and per second. Find what thickness of ice the solar heat could melt in one hour on the surface of the earth. The density of ice is $\cdot 917$, and its latent heat of fusion 80.
- II. A high pressure boiler contains dry air at the atmospheric pressure and at 0°C . A quantity of water is introduced (an equal volume of air escaping), and the boiler is immediately closed: the temperature is then raised to 100°C : find the pressure inside the boiler in millimetres of mercury (at 0°C) the height of the barometer being 760 *mm*.
- III. State briefly reasons for supposing that heat and light are radiated by the same mechanical agency.
- IV. An object is placed before a converging lens at a distance p (less than its focal length f). On the other side of the lens at a distance d from it is a concave mirror of focal length q . Find the position of the image formed by this optical system.
- V. Explain the phenomenon of external conical refraction and describe how it is produced. State the law of polarization of the rays of which the pencil is composed.
- VI. Find formula giving the ratio of M to H in the A and B positions of Gauss, if M be the moment of the stationary magnet, d the distance between the centres of the magnets, $2l$ the length of the stationary magnet and the angle of deflection of the swinging magnet and if the length of the swinging magnet is negligible compared to d .
- VII. What is the Galvanometer Constant? Find the constant of a coil of 121 turns and whose mean radius is 30 *cm* in a field where $H = \cdot 2445$. If such a coil, with its ends connected, were placed in the magnetic meridian and suddenly turned through 90° what current would circulate in the coil? Take the resistance of the coil to be 8 ohms.

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- VIII. Explain what you mean by a thermo-electric diagram and a thermo-electric power of a metal. Show how the neutral point for a circuit of two metals is represented on such a diagram and how the electromotive force round a circuit in which the junctions are kept at two known temperatures may be determined.

GEOLOGY (First Paper.)

PROFESSOR RALPH TATE, F.L.S., F.G.S.

Time—Three hours.

- I. By what tests, applicable in the field, should you determine whether an igneous rock were intrusive or interbedded? Mention some igneous rocks seldom or never found other than intrusive.
- II. How is a geological map constructed, and what is the information conveyed by it?
- III. By what tests can you distinguish the several species of the following groups of minerals:—(1) Chromite, magnetite, ilmenite; (2) massive fluor, apatite, pyromorphite; (3) redruthite, argentite, antimonite; (4) celestine, baryta? State how you apply the tests, and the results in the several cases.
- IV. Upon what principles are Stratified Rocks classified?
- V. In Central Australia, cretaceous beds rest upon Cambrian. Enumerate the beds, known to occur elsewhere in Australia, which are missing in that area, and offer any explanation of their absence.
- VI. Give the mineralogical composition of the following rocks:—basalt, trachyte, felsite.
Name the rocks having the following composition:—plagioclase and hornblende; orthoclase and hornblende; quartz, orthoclase, and hornblende.
- VII. Show how marine denudation differs from subaerial denudation, and give instances of physical features which are the results of these different actions.
- VIII. In a level country, a stratum of quartzite dipping north, reappears in the direction of the dip at a distance of one mile with the same dip. Show by sections how the phenomenon may be accounted for.

GEOLOGY (Second Paper.)

PROFESSOR RALPH TATE, F.L.S., F.G.S.

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Time—Three hours.

- I. How does coal occur in the rocks? How do anthracite, lignite, canel differ from ordinary coal? Explain how the coalfields have become separated from one another.
- II. Enumerate the more important Palaeozoic limestones, and mention some important genera or species of invertebrates characteristic of each one.
- III. What evidence have we of the existence of volcanoes in South Australia; and point out the geological period during which they were active.
- IV. Explain the meaning of the terms:—Anticlinal, strike, joint, and fault. Draw a section illustrating the phenomena referred to under these terms.
- V. Illustrate the application of Geology to the construction of railways, roads, and dams.
- VI. Explain the origin of slaty cleavage.
- VII. Give a sketch of the leading features of the geology and palaeontology of the Carboniferous System in New South Wales.
- VIII. Assign to their proper Zoological and Geographical position the following fossils:—

Glossopteris Brownii; Trigonias semi-undulata; Phacops caudatus; Inoceramus problematicus; Terebratulina fimbria; Rhynchonella pleurodon; Lithostrotion basaltiforme; Exogyra sinuata; Crioceras australis; Phyllograptus folium; Lingulella Davisii; Bronteus flabellifer; Ammonites Beudanti; Halysites catenulatus; Phyllothea australis; Belemnites canaliculatus.

CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

- I. Give the chemical composition of the following minerals:—Rock crystal, magnesite, dolomite, haematite, gypsum, steatite, hornblende, mica, felspar, kaolin. Explain the

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natural formation of kaolin by the disintegration of certain rocks. To what uses is kaolin put?

- II. Describe Clark's process for softening water, explaining the chemical principles involved.
- III. How is Portland cement manufactured? What theories have been proposed to account for its hardening?
- IV. Why is the presence of large quantities of nitrites and nitrates in water regarded as a sign of contamination? If only nitrates are present, what is indicated? Describe some qualitative test for detecting nitrites.
- V. To what special points would you direct your attention in examining a water as to its suitability for steam purposes?
- VI. Describe the preparation, composition, and properties of fulminate of mercury.
- VII. Describe the manufacture of dynamite, and state the products of its explosion. In what respects does the explosion of dynamite differ from that of ordinary gunpowder?
- VIII. Give some account of the manufacture of lubricating oils from crude petroleum oils. What are some of the requirements of a good lubricating oil?
- IX. What constitutes a good fire-clay?

PRACTICAL CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Four hours.

A piece of felspar and of dolomite were given for qualitative analysis.

MECHANICAL AND ENGINEERING DRAWING.

R. W. CHAPMAN, M.A., B.C.E.

Time—Four hours.

- I. Describe a circle of two inches radius; inscribe in it, and circumscribe about it, a regular hexagon.

- II. Project an elevation of a screw of the following dimensions :—

Length	...	...	..	2 inches.
Diameter outside thread	...	...	..	$2\frac{1}{2}$ inches.
Pitch	...	...	..	$\frac{3}{4}$ inch.

The section of the thread being an equilateral triangle.

- III. Draw by a suitable approximate method an ellipse whose axes are 4 inches and 3 inches long. Explain your method.
- IV. Construct a triangle whose sides shall be 2 in. $2\frac{1}{2}$ in. and 3 in. long respectively, and draw the circumscribing circle.
- V. Draw to full size plan and elevation of the model hydraulic press before you.

A P R I L , 1 8 8 9 .

JOHN HOWARD CLARK SCHOLARSHIP.

SELECTIONS FROM LANDOR'S "IMAGINARY
CONVERSATIONS."

DE QUINCEY'S RECOLLECTIONS OF THE
LAKES.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I.—What faults does Diogenes expose in the philosophy of Plato, and Epictetus in that of Seneca?
- II.—What opinions concerning tragic poetry does Landor attribute to Epicurus, and concerning perfect criticism to Alfieri?
- III.—What arguments does Hume advance in favour of religious toleration, in the conversation with Home?
- IV.—On what ground does Noble urge Cromwell to spare the life of Charles I.?
- V.—State, as expressed in the conversation between Lacy and Merino, Landor's views regarding the English Constitution, English laws, English peers, and kings in general.
- VI.—Describe, as accurately as you can, the "Apologue of Critobulus."
- VII.—Give instances of Landor's wit, eloquence, pathos, dramatic power, and poetic feeling.
- VIII.—To what incidents does Wordsworth allude in the following lines:—
 - (a) "O darkness of the grave! how deep
After that living night—
That last and dreary living one
Of sorrow and affright!"

- (b) "The spoiler came
 And woo'd the artless daughter of the hills,
 And wedded her, in cruel mockery
 Of love and marriage bonds."

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- IX.—Examine the influence of Wordsworth's life and surroundings upon the character of his poetry.
 X.—Contrast Southey and Wordsworth as literary types.
 XI.—State briefly the idea of Coleridge's character which you have formed from De Quincey's narrative. Give instances of Coleridge's plagiarisms.

SELECTIONS FROM MATTHEW ARNOLD.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Two hours.

- I.—Explain the following :—
 "Home of lost causes, and forsaken beliefs, and unpopular
 "names, and impossible loyalties! What example could
 "ever so inspire us to keep down the Philistine in our-
 "selves, what teacher could ever so save us from that
 "bondage to which we are all prone;—the bondage of
 "‘*was uns alle bündigt, DAS GEMEINE*’!"
- II.—Define criticism. State its elementary laws. In what way does criticism benefit a critic's own mind, and the minds and spirits of others?
- III.—Write a short account of the origin of the French Academy. What was its chief aim? State the arguments for, and against, the establishment of a similar body in England.
- IV.—Taken as wholes, French prose is superior to English prose, and French verse is inferior to English verse. What literary laws will account for the fact?
- V.—Sketch briefly the plot of *Sohrab and Rustum*. Indicate traces of classical influences in its composition. Quote, or reproduce as closely as you can, the closing passage of the poem, beginning :—
 "But the majestic river floated on."
- VI.—Refer to their context the following quotations :—
 (a) "I am happy: yet I feel, there's something
 Swells my heart, and takes my breath away ;

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Through a mist I see thee : near !—come nearer !
Bend—bend down—I yet have much to say.”

- (b) “ In Vienna by the Danube
Feast and dance her youth beguiled.
Till that hour she never sorrowed ;
But from then she never smiled.”
- (c) “ In the void air towards thee
My strained arms are cast.
But a sea rolls between us—
Our different past.”
- (d) “ Yet we shall one day gain, life past,
Clear prospect o'er our being's whole ;
Shall see ourselves, and learn at last
Our true affinities of soul.”
- (e) “ And thou, who didst the stars and sunbeams know,
Self-schooled, self-scanned, self-honoured, self-secure,
Didst walk on earth unguessed at.”

VII.—What is the scope of Matthew Arnold's poem entitled
Morality ?

VIII.—State what you consider to be Matthew Arnold's special
characteristics, as a writer of verse and prose.

MAY, 1889.

JOHN HOWARD CLARK SCHOLARSHIP
(SUPPLEMENTARY EXAMINATION).

SELECTIONS FROM LANDOR AND DE QUINCEY

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Draw from the *Imaginary Conversations* Landor's conception of the following characters :—
Julius Caesar, Louis XIV., the Empress Catharine.
- II. Give some account of the conversation between *Tiberius* and *Vipsania*.
- III. What opinions have you formed of Landor's political, religious, and philosophical principles from a perusal of the *conversations*?
- IV. Give the substance of Barrow's advice to Newton concerning the general conduct of his life.
- V. Refer to their context the following quotations :—
 - (a) "Men in the extremity of suffering lose sooner the sense of fear than the excitability to indignation : the people of Ireland have endured enough already."
 - (b) "Money is mere dross. I should always hold it so, if it possessed not two qualities : that of making men treat us reverently, and that of enabling us to help the needy."
 - (c) "Despotism sits nowhere so secure as under the effigy and ensigns of Freedom."
 - (d) "Goodness does not more certainly make men happy than happiness makes them good."
 - (e) "I never listen to the swans of the cesspool."

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Supplementary
May, 1888.

- VI. Specify the most striking characteristics of De Quincey's style.
- VII. Explain the allusion in the following verses of Wordsworth's:—
- “ Yes, proof was plain that, since the day
When this ill-fated traveller died,
The dog had watched about the spot,
Or by his master's side :
How nourished here through such long time
He knows, who gave that love sublime ;
And gave that strength of feeling, great
Above all human estimate ! ”
- VIII. What were “ the true and radical causes which, for the final twenty-four years of Coleridge's life, drew him away from those scenes of natural beauty in which only, at an earlier stage of life, he found strength and restoration ? ”
- IX. What models had Wordsworth in view when sketching the *Character of the Happy Warrior* ?
- X. How does De Quincey prove that Southey's political tergiversation was subsequent to the year 1807 ?
- XI. What are Southey's chief merits as an historian ?

SELECTIONS FROM MATTHEW ARNOLD.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. What, according to Matthew Arnold, is the best way for men to attempt the approach to Truth ?
- II. Comment upon the following statement of Wordsworth's :
- “ If the quantity of time consumed in writing critiques on the works of others were given to original composition, of whatever kind it might be, it would be better employed. ”
- III. What is it that “ makes Byron so empty of matter, Shelley so incoherent, Wordsworth even, profound as he is, yet so wanting in completeness and variety. ” ?

- IV. What is it that renders the Great French Revolution a more spiritual event than the English Revolution of Charles the First's time?
- V. What does Arnold consider to be the secret of Edmund Burke's greatness?
- VI. Explain the following phrases as used by Arnold :—
Epoch of Concentration; Epoch of Expansion; Prose of the Centre; Note of Provincialism; a colossal machine for the manufacture of Philistines; the High Church rhinoceros and the Evangelical hyaena; sensitiveness of intelligence.
- VII. *Who prop, thou ask'st, in these bad days, my mind?*
How does Arnold answer the question?
- VIII. Give the substance of Arnold's remarks concerning Goethe, Byron, and Wordsworth in "Memorial Verses."
- IX. Describe the following poems :—
Youth and Calm; Monica's Last Prayer; Thyrsis; Rugby Chapel.
- X. "There is nothing which Matthew Arnold conceives or creates so well as the soothing digressions, in which he withdraws our attention from his main subject."
Illustrate this statement by examples.
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NOVEMBER, 1889.

ORDINARY EXAMINATION FOR THE DEGREE
OF LL.B.

FIRST YEAR

ROMAN LAW.

Ordinary Exam.,
LL.B.
First Year,
November, 1889.

MR. F. W. PENNEFATHER, LL.M., AND MR. A. GILL, B.A., LL.B.

Time—Three hours.

(No Candidate will be allowed to pass in Roman Law who does not show a competent knowledge of Latin.)

- I. Explain the following terms:—mancipium, fiduciaria tutela, jus altius tollendi, testamentifactio passiva, ereptio, regressus, iudicium legitimum, quorum bonorum, actio tributoria.
- II. State briefly the most important provisions of the following laws:—Lex Aquilia, Lex Æbutia, Lex Pompeia de parricidus, Senatusconsultum Orphitianum, Senatusconsultum Macedonianum.
- III. Translate and explain—

Is quoque qui non debitum accepit ab eo qui per errorem solvit re obligatur. Nam proinde ei condici potest SI PARET EUM DARE OPORTERE, ac si mutuum accepisset. Unde quidam putant pupillum aut mulierem cui sine tutoris auctoritate non debitum per errorem datum est non teneri conditione, non magis quam mutui datione. Sed hæc species obligationis non videtur ex contractu consistere, quia is qui solvendi animo dat magis distrahere vult negotium quam contrahere.—*Gaius*, III. 91.
- IV. Translate and explain—

Sed nos constitutione, quam in codice nostro nomine decorato posuimus, matri subveniendum esse exista-

vimus, respicientes ad naturam et puerperium et periculum et sæpe mortem ex hoc casu matribus illatam. Ideoque impium esse credidimus, casum fortuitum in ejus admitti detrimentum: si enim ingenua ter vel libertina quater non pepererit, immerito defraudabatur successione suorum liberorum; quid enim peccavit, si non plures, sed paucos pepererit? et dedimus jus legitimum plenum matribus sive ingenuis sive libertinis, etsi non ter enixæ fuerint quam quater, sed eum tantum vel eam, qui quæve morte intercepti sunt, ut et sic vocentur in liberorum suorum legitimam successionem.
—*Just.*: III. III. 4.

V. Write explanatory notes on the following passages:—

Præterea parentes liberis in adoptionem datis in pro. testate eos habere desinunt.—*G.*, I. 134.

A re in personam transcriptio fit, veluti si id quod tu ex emptio causa aut conductionis aut societatis mihi debeas, id expensum tibi tulero.—*G.*, III. 129.

Stipulationum aliæ judiciales sunt, aliæ prætoriaræ, aliæ conventionales, aliæ communes tam prætoriaræ quam judiciales.—*J.*, III. XVIII. pr.

Nunc admonendi sumus, magnam curam egisse eos, qui jura sustinebant, ne facile homines ad litigandum procederent.—*J.*, IV. XVI. pr.

VI. Show (giving illustrations) the various ways in which exceptions may be classified.

VII. Translate, with notes—

Finitur autem ususfructus morte fructuarii et duabus capitibus deminutionibus, maxima et media, et non utendo per modum et tempus. Quæ omnia nostra statuit constitutio. Item finitur ususfructus, si domino proprietatis ab usufructuario cedatur (nam extraneo cedendo nihil agitur): vel ex contrario si fructuarius proprietatem rei adquisierit, quæ res consolidatio appellatur. Eo amplius constat, si aedes incendio consumptæ fuerint vel etiam terræ motu aut vitio suo corruerint, extinguere ususfructum et ne areæ quidem ususfructum deberi.
—*Just.*: II. IV. 3.

VIII. Translate, with notes—

Præterea intestatus quoque moriturus potest rogare eum, ad quem bona sua vel legitimo jure vel honorario pertinere intellegit, ut hereditatem suam totam partemve ejus aut rem aliquam, veluti fundum, hominem,

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pecuniam alicui restituat : cum alioquin legata nisi ex testamento non valeant.—*Just.* : II. xxiii. 10.

- IX. Explain the modes by which obligations could be dissolved.
- X. What things were *res nullius*, and how could the ownership of them be acquired?
- XI. How many forms could the contract of *mandate* assume? discuss the duties and powers of the *mandatarius*.
- XII. What remedies in the time of Justinian were open to the victim of a theft?
What was the *actio vi bonorum raptorum*, and under what circumstances did it lie?

LAW OF PROPERTY.

MR. F. W. PENNEFATHER, LL.M., and MR. E. B. GRUNDY.

Time—Three hours.

(*You are required to give reasons where your answers involve matters of opinion.*)

- I. State and explain the various estates described by Littleton.
- II. Explain the causes which led to the passing of the Statute of Uses, and the reasons which prevented that Statute from effecting the objects intended.
- III. Trace the history of the law as to Wills of Real Property to the present time.
- IV. Explain the object and the principal provisions of the Lands Clauses Consolidation Act.
- V. Explain the following expressions :—Frankalmoign, rent service, heirlooms, executor de son tort, constructive trust, equitable mortgage, bill of sale, bailment, acceptance for honour.
- VI. Show fully the various ways in which personal property may be alienated.
- VII. Explain, citing authorities, the law as to ademption and satisfaction.
- VIII. What are the general duties of the holder of a Bill of Exchange?
- IX. What provisions are contained in the Real Property Act, 1886, with reference to easements?

- X. Explain the various classes of certificates which may be granted to insolvents, and the reasons which will lead to their being granted respectively.

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LAW OF PROPERTY.

MR. F. W. PENNEFATHER, LL.M., and MR. E. B. GRUNDY.

Time—Three hours.

[*You are required to give reasons where your answers involve matters of opinion.*]

- I. Define (1) a *specific*, (2) a *demonstrative*, and (3) a *general* Legacy. Give examples, and explain why (2) is more beneficial than (1) and (3).
- II. "A surety may be discharged from his liability by the conduct of the creditor." Explain and illustrate this.
- III. What estates may the owner in fee simple grant, to commence in interest, and not in possession merely, at a future time? Define these estates, and give an example of each kind.
- IV. Distinguish between an exclusive and a non-exclusive power of appointment, and state how the Legislature has endeavoured to cure the difficulties which arose with reference to what were called "illusory appointments." Is the law in South Australia upon this subject the same as in England? If not, state in what respect it differs.
- V. Write a short history (without reference to the Real Property Acts) of the modern conveyance, commencing with the method of conveyancing by Lease and Release.
- VI. State the rules which govern the descent of an Estate in Fee Simple in England of a person who dies after the 1st January, 1834, and the principal differences between them and the rules which obtained prior to that date.
- VII. Trace the Law of Partition as between (1) Coparceners, (2) Tenants in Common, and (3) Joint-tenants, up to the present time.
- VIII. What is a Lien, and how can it be given? Distinguish between a particular and a general lien, and explain why the law favours one and not the other,

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- XI. Give the effect of the Real Estates Distribution Act, 1867, upon the right of primogeniture in South Australia ; and state for what purpose and why that Act was amended.
- X. The old rule, that participation in the profits of a partnership rendered the participator liable for the debts of the partnership, has been altered. Explain how and in what respects.
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JURISPRUDENCE.

MR. F. W. PENNEFATHER, LL.M., and MR. T. HEWITSON, LL.B.

Time—Three hours.

- I. Classify sciences, explaining the various senses in which the term *Law* is used in them respectively.
- II. Explain the objections made by Sir Henry Maine to Austin's conception of Positive Law.
- III. State (with illustrations) the difference between a system of confederated States and a composite State, explaining in each case in whom the Sovereignty resides.
- IV. Enumerate the various meanings of the term "Equity."
- V. Explain the difference between the Latin word *jus* and the English word *law*.
- VI. In what ways have rights been classified? What classification do you prefer? Give reasons for your answer.
- VII. Compare in their fullest respective significance the Roman "obligatio" and the English "Obligation." What is the exact meaning attached by Austin to "obligation" as a term of general jurisprudence?
- VIII. Explain the terms *status*, *moral sanction*, *dominium*, *relative duty*.
- IX. "The unit of an ancient society was the Family; of a modern society it is the individual."
Mention some of the most striking consequences in jurisprudence of this difference.
- X. Can any distinction be properly drawn between general and particular jurisprudence? Give your reasons.
- XI. Write explanatory notes on the following passages:—
 - (a) The King (of England), although free from the fetters of positive law, is not incapable of legal obligation.
 - (b) The Sovereign is incapable of legal obligation.

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- XII. What is the full import of the terms *intention* and *guilt*? Is a defendant's knowledge of all the facts which constitute a criminal breach on his part always material to the question of his guilt?

CONSTITUTIONAL LAW.

MR. F. W. PENNEFATHER, LL.M., and MR. T. HEWITSON, LL.B.

Time—Three hours.

- I. Explain the constitution and functions of the Norman Curia Regis, and show what institutions now existing are derived from it.
- II. Enumerate the principal events in the reign of Henry III. which have made it an important period in the constitutional history of England.
- III. What are the complaints against the conduct of James II. which are contained in the Bill of Rights?
- IV. What is the history and nature of the distinction between (a) the Ministry, (b) the Cabinet, and (c) the Privy Council?
- V. Discuss the common law rights of personal liberty and the nature of their attendant remedies before the Habeas Corpus Act, with special reference to the causes which led to the passing of that Act.
- VI. What is the foundation of the title to the English Crown of the present reigning dynasty? Is the title defeasible by virtue either of the common law or the existing statute law of England?
- VII. What attempts have been made, and what plans have been proposed to secure the representation of minorities in Parliament?
- VIII. Explain (citing authorities) the difference between a Viceroy and a Colonial Governor.
- IX. State generally in what cases the assent of Her Majesty in person is necessary to the validity of bills passed by the South Australian Parliament.
- X. Under what circumstances will the Crown review the decisions of Colonial Courts in criminal cases? What is the origin of the Crown's jurisdiction? Indicate briefly the procedure.

- XI. Describe (a) the origin and (b) the extent of the powers of the South Australian House of Assembly to punish for contempt.
- XII. Explain the following expressions:—Ealdorman, gesith, confirmatio charterum, ordinance, assize, convention Parliament, præmunire.

LAW OF CONTRACTS.

MR. T. HEWITSON, L.L.B., AND MR. T. B. GALL.

Time—Three hours.

- I. Define "Agreement," distinguishing—
- (a) 'Void agreement' with examples of agreements void for mistake;
 - (b) 'Voidable agreement' with examples of agreement voidable for misrepresentation.
- II. 'To sustain a contract of Sale in Equity a reasonable degree of equality between the contracting parties is required.' Examine this statement.
- III.—What is the theory of general capacity? State the extent to which it is applicable to the contracts of Companies incorporated and registered under "The Companies' Act, 1864."
- IV. Discuss the rights of A in each of the following cases:—
- (a) A sells goods to B for delivery in three lots, payment on delivery of the last lot; B accepts the first, but refuses to take delivery of the second lot.
 - (b) Partnership articles between B and C provide that on C's death his share of the business shall go to A; C being dead, A seeks to enforce the provision in his favour.
- V. Compare the leading principles of the Equitable doctrine of separate estate with the general results of the "Married Woman's Property Act (S.A.)" To what extent and under what circumstances is the Equitable doctrine still applicable in South Australia?
- VI. Explain shortly the history and policy of the law relating

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- to covenants in restraint of trade. Under what circumstances may such a covenant be enforceable in part only ?
- VII. Under what circumstances and upon what evidence will the Supreme Court reform a written agreement ?
- VIII. Define "Warranty." Give examples and state remedies for breach.
- IX. What are the respective rights of vendor and purchaser of real Estate when the actual tenure, quantity, or description of the property varies from that stated in the contract ?
- X. What is the law with regard to contracts of drunkards and persons of unsound mind ?
- XI. A is employed by B as agent to sell a cargo of potatoes. He sells to C, to whom he owes £50 on a previous transaction. He does not tell C until after delivery of the cargo that he sold for B. C claims on settlement to deduct £50 due to him by A. B objects. What are the respective rights of the parties ?
- XII. Explain what is meant by "negotiable instrument." Give examples, mention the principal qualities, and the rights of *bonâ fide* holders ; and state how a negotiable instrument may cease to be negotiable.
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INTERNATIONAL LAW.

MR. F. W. PENNEFATHER, L.L.M., AND MR. R. G. MOORE.

Time—Three hours.

- I. Do you consider that the interference of England in the Greek War of Independence was justifiable ; and if so, on what grounds ?
- II. Explain fully the Right of Self-preservation.
- III. Trace the history of the dispute between Canada and the United States concerning the fisheries in the North Atlantic, showing the various questions of international Law that have arisen with reference to it.
- IV. Give some account of the case of the Shenandoah.
- V. What are the requisite conditions under which acquisition by occupation is possible ; and what are its effects ?
- VI. "Their allegiance" (*i.e.*, of the subjects of a State) "until changed is considered as travelling with them wherever they go." Illustrate and explain this statement.
- VII. What is the practice of the English Courts in granting administration with the will annexed to foreign wills appointing no executor ?
- VIII. What is the general law in England on the doctrine which governs immovables ?
- IX. What is the rule of the road at sea between two vessels of different nationalities ?
- X. *A*, domiciled in South Australia, goes to Melbourne, and there goes through the form of marriage with *B*, his deceased wife's sister, who is domiciled at the Cape. Such marriages are allowed by the law of Victoria, but not by the law of the Cape.
Would the marriage be held good (*a*) in South Australia ; (*b*) in England ; or (*c*) at the Cape ? Give the reasons in each case.
- XI. What are the criteria commonly referred to in determining Domicile ? Show the importance attached to them respectively, and cite authorities.

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- XII. Explain the following expressions :—*Jus Feciale, the right of innocent passage, maritime belt, universal assignment, Anglo-Indian domicile, proper law of a contract.*

THE LAW OF WRONGS.

MR. A. GILL, B.A., LL.B., AND MR. E. PARISS NESBIT.

Time—Three hours.

[*You are required to give reasons where your answers involve matters of opinion.*]

- I. State the chief provisions of the "Employers Liability Act, 1884," and explain how the Act altered the doctrines of the Common Law.

A, a driver in the employ of a carrying company, was employed to drive the carts and to load and unload the goods carried. Among the horses was one of a vicious nature, and unfit to be driven, even by a careful driver. *A* objected to drive this horse, and told the foreman of the stable it was unfit to be driven, to which the foreman replied that *A* must go on driving it, and that if any accident happened, his employers would be responsible. *A* continued to drive the horse, and while sitting on his proper place in the cart was kicked by the animal, and his leg was broken.

Has *A* any remedy? State reasons for your opinion.

- II. What circumstances are requisite to create a right of action for deceit?

How far is a master liable for deceit on the part of his servant.

- III. What grounds of justification or excuse may be set up to justify or excuse acts amounting to an apparent violation of the rights of property or possession?

- IV. Under what circumstances, according to Pollock, does a duty of insuring safety arise? Distinguish, under such circumstances, the position of a trespasser and a licensee.

A was a journeyman gasfitter employed to examine and test some new burners which had been supplied by his employer for use in the defendant's sugar refinery. While on an upper floor of the building he fell through an unfenced shaft which was used in working hours for raising and lowering sugar.

What are the criteria by which to test the liability of the defendants to *A*?

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- V. What is the fundamental distinction between a Civil and Criminal wrong?
Define Misprision, Principal in the second degree, Rout, Riot, Champerty.
- VI. Distinguish Larceny, Larceny by a bailee, Embezzlement, Obtaining by false pretences.
Which of the above crimes (if any) has *A* committed in the following cases?—
(*a*) *A* puts his hand into *B*'s pocket with intent to steal what he finds there. The pocket is empty.
(*b*) *A*, being *B*'s clerk, takes £20 out of *B*'s till and spends it.
(*c*) *A* goes to *B*'s shop and says that *C* wants some boots to look at. *B* permits *A* to take away some boots for *C* to choose from. *A* does not take them to *C*, but converts them to his own use.
(*d*) *A* sells *B* certain silver-plated spoons, representing that they had as much silver on them as "Elkington's," and that the foundation was of the best material. These statements were untrue.
- VII. What circumstances would support a defence of reasonable and probable cause in an action for malicious prosecution; and what is the basis of an action for false imprisonment?
- VIII. State the history and the present condition of the doctrine of identification.
- IX. Define Contributory Negligence. What legal consequences ensue when it is established?
- X. What are the rules with regard to contribution and indemnity as between wrongdoers?
- XI. Under what circumstances does defamation amount to an indictable offence, and to what extent is the truth of the alleged defamatory matter a defence in a criminal prosecution?
- XII. What is a conspiracy at Common Law, and what punishment is provided for the offence?

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THE LAW OF EVIDENCE AND PROCEDURE.

MR. F. W. PENNEFATHER, LL.M., AND MR. A. GILL, B.A., L.L.B.

Time—Three hours.

- I. In what circumstances may a writ be served out of the colony? What steps must be taken in such cases?
- II. Explain fully "Third Party Procedure."
- III. State the powers and practice of the Court with reference to the custody of infants.
- IV. When will the Court grant an order for a new trial? How must the application be made?
- V. Trace the history of the law concerning the incompetency of witnesses.
- VI. *Nemo tenetur seipsum accusare.* Write a full note on this maxim.
- VII. Enumerate the various writs available to enforce a judgment of the Supreme Court.---
 - (a) for the payment of money into Court.
 - (b) for the recovery of the possession of land.
 - (c) for the recovery of property other than land or money.

What is a writ of attachment? Under what circumstances may it be issued?
- VIII. Name the statutory requisites for the purpose of a composition under Part XI. of "The Insolvent Act, 1886." What course is open to a dissatisfied creditor? Define "Extraordinary Resolution" and "Special Resolution" under the above Act.
- IX. State the practice as to "Interpleader," under the "Local Courts' Act, 1886."
- X. When is "Hearsay evidence" admissible?
- XI. How would you determine on which of two litigant parties the burden of proof lies?
- XII. How may the evidence of a witness in a cause be discredited?

To what extent can a party to a cause adduce evidence to discredit the testimony of his own witness?

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ORDINARY EXAMINATION FOR THE DEGREE
OF M.B.

FIRST YEAR.

ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. Write a general description of the ribs.
- II. Compare the upper third of the humerus with the corresponding part of the femur.
- III. Enumerate, in their relative positions, the bones which go to form the cavity of the cranium.
- IV. Compare and contrast the skeleton of the hand with that of the foot.
- V. Describe the adductor muscles of the thigh.
- VI. Write down in their order, from above, the structures exposed by removal of the whole of the Trapezius muscle.

PRACTICAL ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Three hours.

A *vivâ voce* and Practical Examination was held in the Dissecting Room.

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ELEMENTARY BIOLOGY AND PHYSIOLOGY.

E. C. STIRLING, M.A., M.D., F.R.C.S. (Eng.).

Time—Three hours.

[*N.B.*—*Not more than five questions are to be attempted.*]

- I. Write an account of the structure and life history of the Schizomycetes or Fission Fungi.
- II. What do you understand by the terms "secretion" and "excretion?" Illustrate your explanation by reference to particular organs in the animal types you have studied.
- III. Compare (with diagrams) the structure and relations of the fibro-vascular bundles in the bean plant and in the bracken fern.
- IV. What is the lymphatic system? Describe the special features of the lymphatic system in the frog.
- V.—Write an account of the minute structure of Hydra. To what extent does it manifest a differentiation of tissues and organs?
- VI. Describe (with diagrams) the central nervous system of the frog. Explain, also, how a spinal nerve is connected to the spinal cord, pointing out the functions of the chief parts concerned.

PRACTICAL BIOLOGY.

E. C. STIRLING, M.A., M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. Ascertain by means of the microscope the nature of the materials *x*, *y*, *z*.
- II. Identify the specimens *a*, *b*, *c*, &c.
- III. Draw a diagram, with explanatory marginal notes where necessary, of a typical portion of the specimen marked *o*.
- IV. Make a dissection showing one anterior and one posterior lymph heart in the frog. Mark them with flag labels. Place a ligature on the 10th spinal nerve.

INORGANIC CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

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Time—Three hours.

[N.B.—Candidates are expected to write formulæ and equations wherever possible.]

- I. How would you proceed to ascertain whether a sample of water has been either recently, or at some past time, contaminated with sewage? State *fully* the reasons for your answer.
 - II. Describe fully any one method for preparing dilute solutions of (a) hydriodic acid, (b) hydrocyanic acid, (c) hydrofluosilicic acid.
 - III. Nitrogen, phosphorus, arsenic, and antimony, are generally placed in one group. State fully the reasons for this. Has boron any affinities to this group? Explain your answer.
 - IV. State what you know of the nature, preparation, and properties of bleaching powder, and explain how it is that practically all the chlorine which it contains is set free by dilute sulphuric acid.
 - V. How are the anhydrous chlorides of phosphorus, boron, and aluminium usually prepared? Explain fully the reaction in each case, and also the action of these compounds on water.
 - VI. Describe in outline the manufacture of aluminium from bauxite, explaining carefully the chemical re-actions involved.
 - VII. How would you prepare potassium iodide, white vitriol, tartar emetic, lunar caustic?
 - VIII. Write equations expressing the chemical changes which occur when the following solutions are mixed:—(a) aluminium sulphate and sodium carbonate, (b) mercuric chloride and a large excess of stannous chloride, (c) magnesium sulphate, ammonium chloride, ammonia and ordinary sodium phosphate.
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PRACTICAL CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

Five substances, containing not more than one inorganic base and one inorganic acid, were given to each student for qualitative analysis.

MORPHOLOGICAL AND SYSTEMATIC BOTANY.

PROFESSOR RALPH TATE, F.L.S., F.G.S.

Time—Three hours.

- I. Illustrate the law of numbers and alternation of parts in reference to the floral whorls.
- II. Describe fully the chief morphological varieties of the stamen.
- III. What are the various modifications of the Andræcium in respect of adhesion and cohesion?
- IV. State how Boragineæ and Solanaceæ resemble or differ from each other, as regards corolla, stamens, pistil, and fruit.
- V. Give the characters of the sub-classes of Dicotyledons and Monocotyledons.
- VI. State the characters of the Orders Malvaceæ and Rutaceæ.
- VII. Describe the chief forms of placentation, and illustrate by reference to actual plants.
- VIII. Refer to their Natural Orders the accompanying plants.

ELEMENTS OF HEAT, ELECTRICITY, MAGNETISM, LIGHT, AND ACOUSTICS.

The same papers as set for Elementary Physics I. and II. for the First Year of the B.A. Degree.

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ANATOMY.

PROFESSOR ANDERSON-STUART, M.D., AND PROFESSOR WATSON,
M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. The hip joint :—Describe
 - (a) The head of the femur.
 - (b) The capsular ligament, and the action of its anterior part.
 - (c) The action of the ligamentum teres,
- II. Write a complete account of the musculi lumbricales and musculi interossei, including their exact actions, and comparing those of the foot with those of the hand.
- III. The Axilla : Describe, step by step, a dissection undertaken to display the contents of this space from below, naming the different structures as they are encountered, and giving an account of their relations to each other within the space.
- IV. The left kidney and ureter : Write an account of the relations of this kidney, and of the ureter in its entire course.
- V. The fornix of the cerebrum : Describe it fully, giving its connections and relations.
- VI. Write a description of the brachial plexus.

PRACTICAL ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.)

Time—Three hours.

A *vivâ voce* and Practical Examination was held in the Dissecting Room.

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COMPARATIVE ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (ENG.)

Time—Two hours.

- I. Enumerate the constituent elements of a vertebral segment, and discuss the principal modifications of the same as exhibited by the Turtle.
- II. Compare the Sternum and Shoulder girdle of man with the corresponding parts in monotremes and carinate birds.
- III. Describe the fore-foot of a horse, and compare it with the manus of man.
- IV. Define and explain the following terms :—Endo-Skeleton, Exo-Skeleton, Ecteron and Enteron, Ectosarc, Ectoderm.

PHYSIOLOGY.

PROFESSOR ANDERSON STUART, M.D. AND E. C. STIRLING, M.A., M.D.

Time—Three hours.

[*N.B.*—*Not more than five questions are to be attempted.*]

- I. The circulation of the blood ;—Enumerate the various influences concerned in the maintenance of the blood-flow and explain briefly the nature of each.
- II. Write an account of the biliary secretion from the time it is poured into the duodenum, making special reference to the ultimate fate of its constituents. To what extent is bile a "secretion," and to what extent an "excretion?"
- III. 1. Describe the microscopical appearances of (a) lymph before and after passing through the lymph glands, and (b) the substance of a lymph gland.
2. What are the functions of the lymph?
- IV. The spinal nerve roots ;—
(1) Prove that the anterior are purely efferent, and the posterior purely afferent.
(2.) What is recurrent sensibility?
(3.) What is probably the function of the ganglion on the posterior roots?
- V. 1. Enumerate the various circumstances under which the pupil contracts?

2. What is an "entoptical phenomenon?" Mention two examples.
3. The right external rectus is paralysed. What is the nature of the resulting diplopia?
- VI. How do you account for the presence of hippuric acid in the urine? State the grounds on which you base your answer.

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PRACTICAL PHYSIOLOGY.

E. C. STIRLING, M.A., M.D.

Time—Three hours.

- I. Identify the specimens *A*, *B*, *C*, &c.
- II. Draw a diagram, with explanatory marginal notes where necessary, of a typical portion of the specimens marked *O*.
- III. Stain and mount a piece of the subvertebral lymph sinus of the frog so as to show its most characteristic features.
- IV. What are the stains on the material *X*? Name and leave for examination any preparation that leads you to a conclusion.
- V. What is the piece of apparatus marked *Y*? For what purposes is it used. Make a diagram showing the arrangements of its essential parts, and explain the manner in which it is made to work.

ORGANIC CHEMISTRY.

PROFESSOR MASSON, M.A., D.Sc., AND PROFESSOR RENNIE,
M.A., D.Sc.

Time—Three hours.

(N.B.—Candidates are expected to write formulæ and equations wherever possible).

- I. What is *cream of tartar*, and how is it obtained? By what properties may it be identified?
- II. Name a good antidote to oxalic acid, and explain its action.
- III. Describe the preparation of chloroform.

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- IV. An aldehyde is said to be a compound intermediate between an alcohol and an acid. Explain this.
- V. What is a nitrile? How does it react with (1) aqueous alkalis, (2) nascent hydrogen?
- VI. What is the constitution of glycerine? Mention facts in support of the theory.
- VII. What are the chief ingredients of the *light oil* from coal-tar? How may they be separated?
- VIII. What are the chief properties of picric acid? How would you prepare it from benzene?
- IX. What are the natural sources of hippuric acid. How is it related to benzoic and acetic acids?

PRACTICAL CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Four hours.

Each student was given *one* of the following sets of two mixtures to analyse qualitatively:—

- I. (a) Antimony arseniate and ammonium acetate.
(b) Starch and strychnine.
- II. (a) Cream of tartar and sulphate of quinine.
(b) Starch and cadmium sulphate.
- III. (a) Lead acetate and strychnine hydrochloride.
(b) Starch and zinc sulphate.
- IV. (a) Ammonium oxalate, strychnine, arsenic acid.
(b) Starch and cupric cyanide.
- V. (a) Ammonium succinate and calomel.
(b) Starch and quinine sulphate.
- VI. (a) Cane sugar, cupric cyanide, and potassium cyanide.
(b) Starch and tartar emetic.
- VII. (a) Mercuric nitrate and Baric acetate.
(b) Starch and Strychnine.
- VIII. (a) Potassium urate and zinc carbonate.
(b) Starch and quinine sulphate.

- IX. (a) Zinc oxide, strychnine, and ammonium benzoate.
 (b) Starch and mercuric nitrate.

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N.B.—In the mixtures marked (b) it was only necessary to determine the nature of the organic matter (starch) and the presence of the metal or alkaloid.

MATERIA MEDICA.

W. L. CLELAND, M.B.

Time—Three hours.

- I. What is the root I? What is its active principle, and in which part of the root is it found? Describe the physiological action of this principle on (a) stomach, (b) intestinal canal, (c) respiratory mucous membrane.
- II. What is the rhizome II? What are the officinal preparations of it? To the action of what gum-resins does it correspond?
- III. What is the sample III? What is its nature and how produced? What acids and alkaloids does it contain? Describe the general physiological action of the drug on (a) the uterus, (b) the blood vessels, (c) the nervous system. What are the two distinctive forms of poisoning?
- IV. What are the leaves IV? What are the officinal preparations, and the physiological action?
- V. What are the principal ingredients of *pulvis glycyrrhizæ compositus*? Why would you consider the combination a judicious one?
- VI. What are the aperient salts of potassium? What physical property causes them to act thus?
- VII. What officinal drugs are derivatives of opium? Describe the physiological action of each.
- VIII. What are the officinal compounds and preparations of silver? Describe its action as a caustic. What unpleasant effect may arise from its internal administration?
- IX. What is the general physiological action of acids on (a) salivary secretion, (b) gastric secretion, (c) the intestinal canal, (d) the blood in the case of direct contact?

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- X. What are the symptoms of chronic arsenical poisoning?
When would you give arsenic before, and when after
food?
- XI. What is meant by the word anthelmintic? Name two
drugs that are almost exclusively used for this purpose.
- XII. Describe the physiological action of amyl nitrite. What
are the sensations produced by its inhalation?
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PRINCIPLES AND PRACTICE OF MEDICINE.

JOSEPH C. VERCO, M.D., (LOND.), F.R.C.S., (ENG.), JOHN DAVIES
THOMAS, M.D., (LOND.), F.R.C.S., (ENG).

Time—Three hours.

- I. Give the causes, pathological anatomy, symptoms, and treatment of hæmorrhage into the Brain.
- II. Write what you know about Chorea.
- III. A child, six years of age, has complete paralysis of motion in both legs, from the hips downwards; what diseases might have caused this? How would you determine what it is due to?
- IV. Give the symptoms, morbid anatomy, and treatment of Locomotor Ataxy.

PRINCIPLES AND PRACTICE OF MEDICINE.

JOSEPH C. VERCO, M.D., (Lond.), F.R.C.S., (Eng.), JOHN
DAVIES THOMAS, M.D., (Lond.), F.R.C.S., (Eng.).

Time—Three hours.

- I. Describe the various forms of Ulceration of the Stomach, with the symptoms, prognosis and treatment of each variety.
- II. What are the symptoms produced by Gallstones? Describe the treatment of the disease under the various conditions which they may occasion and indicate prophylactic treatment.
- III. Enumerate the various chief varieties of Pulmonary Phthisis; discuss the cause, symptoms, and physical signs of the more marked clinical forms, and state what complications may accompany the lung affection. Briefly suggest the line of treatment.
- IV. State the causes of Vomiting, and point out the directions of enquiry in order to determine the particular cause operative in a given case. Mention the treatment of the separate causes and the prognosis.

PRINCIPLES OF SURGERY.

Ordinary Exam,
M.B.
Third Year.
November 1889.

E. C. STIRLING, M.D., F.R.C.S. (ENG.), AND WM. GARDNER,
M.D., CH.M.

Time—Three hours.

- I. Mention the causes which may produce extravasation of urine into the perineum. Describe its course, symptoms, and treatment.
- II. Describe the Pathology, Symptoms, and course of a case of Simple Cutaneous Erysipelas.
- III. Describe the formation of an Acute Abscess, and state the principles on which it should be treated.
- IV. Describe the process of repair in simple fracture of a long bone, and the local complications which may interfere with it.
- V. Describe the progress of a case of Hip-joint Disease from its commencement. How may it terminate, and what treatment is appropriate in each stage of the disease?

SURGICAL ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. Name the structures which must necessarily be divided in removal of the Eyeball.
- II. Discuss fully the anatomy of the epiphyses of the Humerus, Radius, and Ulna.
- III. State precisely at what points of the bony thorax the line of reflexion of the diaphragmatic pleura occurs. Give the relations of the Diaphragm.
- IV. Write an account of the relations of the Bladder and Prostate to surrounding parts, and mention the sources whence the bladder receives its vascular and nervous supply.

PATHOLOGY.

J. D. THOMAS, M.D., F.R.C.S., AND PROFESSOR WATSON.

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Time—Three hours.

- I. Describe the principal anatomical changes met with in Phthisis Pulmonis and General Tuberculosis respectively.
 - II. Contrast the local manifestations of Tuberculosis, Typhoid Fever, and Dysentery, as found in the alimentary canal.
 - III. Write a description of the Inflammatory and degenerative changes to which arteries are liable.
 - IV. Describe the naked eye, and microscopical anatomy of cirrhosis (*a*) of the Liver,
(*b*) of the Lung.
 - V. Discuss the various sources of pigmentation met with as the result of pathological processes.
 - VI. Explain the following terms :—
Embolism, Thrombosis, Infarct, Dissemination, Pre-existing susceptibility and Determining cause.
-

FOURTH YEAR M.B.

PRINCIPLES AND PRACTICE OF MEDICINE.

The same papers as set for the Third Year.

SURGERY.

E. C. STIRLING, M.D., F.R.C.S. (Eng.), and WM. GARDNER,
M.D., Ch.M.

Time—Three hours.

- I. State the causes of retention of urine in a male, and the proper treatment in each case.
 - II. Describe the process of repair in a compound fracture of a long bone. What complications may supervene?
 - III. What are the local and general symptoms of a strangulated inguinal hernia? Describe in detail the steps of the operation that may be necessary for its relief.
 - IV.—Describe the symptoms which may be presented by a chancre. What are the immediate and remote symptoms which may follow?
 - V.—What are the causes, course, and symptoms of a case of senile gangrene? How would you treat such a case?
-

FORENSIC MEDICINE.

ALFRED LONDON, M.D.

Time—Three hours.

(Only four questions to be answered.)

- I. Poisoning by arsenic: describe fully the symptoms and post-mortem appearances: what are the difficulties which may arise in the diagnosis? Illustrate these difficulties, if possible, by the case of "Reg. v. Maybrick." Describe briefly the tests for its recognition, and the treatment usually recommended.
- II. Describe fully the symptoms of poisoning by one of the group of deliriant poisons. Give the post-mortem appearances, the physiological actions, and the appropriate treatment.

- III. The body of a man was found in the hills three months after he was missing. If asked to report officially upon it, to the elucidation of what questions would your examination be directed? Give the data upon which your report would be founded.
- IV. Discuss the value of the evidence afforded by the various discharges from the vagina, both physiological and pathological.
- V. Describe fully the various methods for the examination of blood stains, and discuss the medico-legal questions which may arise in connection with them.
-

Ordinary Exam.,
M.B.,
Fourth Year,
November, 1889.

CLINICAL AND PRACTICAL EXAMINATIONS.

Clinical and Practical Examinations in Medicine and Surgery were held at the Adelaide Hospital.

FIFTH YEAR M.B.

Ordinary Exam.
M.B.;
Fifth Year
November, 1889.

PRINCIPLES AND PRACTICE OF MEDICINE.

JOSEPH C. VERCO, M.D., (Lond.), F.R.C.S., (Eng.), JOHN DAVIES
THOMAS, M.D., (Lond.), F.R.C.S., (Eng.).

Time—Three hours.

- I. The knee-jerks cannot be elicited in a patient. What diseases may occasion this condition? Show how you would ascertain to which of these complaints it is due.
- II. Write what you know on the subject of Amyloid (Lardaceous) Disease,
- III. Mention the causes, symptoms, physical signs, and consequences of Aneurysm of the Thoracic Aorta, and indicate the principal difficulties of the diagnosis.
- IV. Mention the forms of Jaundice; state its causes and consequences, and point out the phenomena by which an opinion may be formed as to its cause in any given case.

PRINCIPLES AND PRACTICE OF MEDICINE.

I. JAMES JAMESON, M.D., JOSEPH C. VERCO, M.D., (Lond.),
F.R.C.S., (Eng.), JOHN DAVIES THOMAS, M.D., (Lond.), F.R.C.S.
(Eng.).

Time—Three hours.

- I. Describe the modes of production, symptoms, and differential diagnosis of dilatation of the bronchial tubes.
- II. Trace in detail, the ordinary development toward a fatal issue of a case of mitral regurgitation.
- III. For what other diseases may typhoid fever be mistaken; and how would you make the distinction?
- IV. Describe the symptoms, diagnosis, and treatment of tubal nephritis in its various stages.

SURGERY No. I.

Ordinary Exam.
M.B.
Fifth Year.
November, 1889.

A. MACCORMICK, M.D., CH.M. AND WM. GARDNER, M.D. CH.M.

Time—Three hours.

- I. Describe the Anatomy of Spina Bifida. Mention the treatment you would adopt, and the risks involved in such treatment.
- II. Mention the causes which may produce extravasation of urine into the Perinæum; state the direction it takes, and the reason for that direction. What are the local and constitutional symptoms which attend it, and what treatment would you adopt?
- III. Describe the symptoms which occur in the first year of life as a result of Congenital Syphilis. What is the proper treatment?
- IV. What circumstances would lead you to make an artificial opening into the bowel? Describe the steps of such an operation and its subsequent course?

SURGERY No. II.

A. MACCORMICK, M.D., CH.M., and WM. GARDNER, M.D., CH.M.

Time—Three hours.

- I. What are the local and general effects of "Putrefaction" in wounds?
- II. Describe and distinguish between the processes of—
 - (a) Ulceration.
 - (b) Sloughing.
 - (c) Phagedœna.
- III. A man is stabbed in the abdomen. What are the symptoms which may occur? Discuss the principles that would guide you in the treatment of such a case.
- IV. What are the indications and circumstances which would lead you to perform an operation for the radical cure of an Inguinal Hernia? Describe the steps of any operation you might be disposed to perform.

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SURGICAL ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. Name, in their order, the structures divided in excision of the upper jaw.
- II. Write a description of the knee joint.
- III. Describe the large intestine, and the disposition of the peritoneum in relation to it.
- IV. Name, in their order, the structures cut through in
 - (a) Amputation at the shoulder joint.
 - (b) Amputation of the leg in its upper half.

OBSTETRICS AND DISEASES OF WOMEN.

T. CHAMBERS, F.R.C.S., ENG., AND E. W. WAY, M.B.

Time—Three hours.

- I. Give a brief description of the female pelvis, its bony framework, articulations, ligaments, and the approximate length of its diameters in the living subject.
- II. Describe briefly the first, second, and third stages of labour; when one ends and the other begins; and the phenomena of each stage.
- III. What are the causes, symptoms, and treatment of hæmorrhage after delivery?
- IV. Describe briefly (1) the mechanism of delivery when the breech presents in the left sacro-anterior position, and (2) the management of an ordinary breech labour.
- V. Describe briefly the several forms of Dysmenorrhœa, their symptoms and treatment.
- VI. Describe the chief general conditions which give rise to displacement of the womb, and state the symptoms, physical signs, diagnosis, and treatment of Retroversion of the Uterus.

OPHTHALMIC SURGERY AND AURAL SURGERY.

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M. J. SYMONS, M.D., IN OPHTHALMIC SURGERY.

W. A. GILES, M.B., IN AURAL SURGERY.

Time—Three hours.

OPHTHALMIC SURGERY.

[Four, and only four, of the questions to be answered.]

- I. Describe the normal course of the tears from the lachrymal gland to the nose. How would you treat a case of lachrymal obstruction with abscess.
- II. Ophthalmia Neonatorum. Give its causes, symptoms, complications, and treatment.
- III. Optic Neuritis. What are its chief causes, and how do you recognize its presence?
- IV. What is meant by the "dangerous zone?" How would you treat a case of punctured wound in that situation?
- V. Compare and contrast the symptoms of Acute Plastic Iritis and Acute Glaucoma. What is the appropriate treatment in each case?

AURAL SURGERY.

[Two, and only two, of the questions to be answered.]

- I. What is Chronic Suppurative Inflammation of the Middle Ear? What are its complications and consequences?
- II. Detail carefully the symptoms and treatment of Mastoid Periostitis.
- III. What is Menière's Disease. How does it arise? What is the progress and treatment.

LUNACY.

A. S. PATERSON, M.D.

Time—Three hours.

- I. Describe the symptoms of Hypochondriasis.
- II. Distinguish between hallucination, illusion, delusion.
- III. What are the forms of mental disorder incidental to the child-bearing state, their general characters (briefly) and prognosis?

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- IV. Enumerate the diseased mental states attributable to the excessive use of alcohol. Give the prognosis and treatment in a case of mania-a-potu.
- V. What are the physical and mental symptoms of General Paralysis.
- VI. Distinguish between Melancholia with stupor and Apathetic Dementia.

HYGIENE.

H. T. WHITTELL, M.D.

Time—Three hours.

- I. What are the provisions in the Health Acts of the Colony for the suppression of nuisances from offensive trades?
- II. What conditions are necessary in order that the disposal of sewage by irrigation may be satisfactory?
- III. Assume that 3,000 cubic feet of fresh air per hour for each person are required for natural ventilation. Why would a room ten feet high, and measuring in all 1,000 cubic feet, be more suitable for occupation by one man than another room eight feet high, and measuring in all 500 cubic feet, the openings in each room being sufficient for the passage of the required quantity of air?
- IV. What report would you make on a drinking-water which yields on analysis

Total Solids	50	} parts in 100,000?
Saline Ammonia	...	...	·011
Albuminoid Ammonia	...	...	·013
Nitrogen in Nitrates and Nitrites			.242	
Oxygen consumed in four hours, Permanganate test			·4	

Give reasons for your report.

- V. Describe an earth closet, and state what are the advantages or disadvantages of the earth closet system (a) in country townships containing few houses, (b) in larger towns like Adelaide or Port Adelaide.
- VI. In the course of two or three days several cases of Scarletina occur in families residing in different parts of North Adelaide. In some families three or four persons

become affected in quick succession. A few cases occur at about the same time in South Adelaide and in Prospect, but no one has yet been attacked in Norwood, Hindmarsh, or Unley. You are supposed to be the Health Officer for the City, and the Central Board of Health calls on you for a report on the cause of the outbreak of the disease and on the best means to be adopted to arrest its progress. What would be your mode of investigation ?

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VII. The air in Soda-water Manufactories often contains from five to ten parts per thousand of Carbonic Acid and the workmen experience no inconveniences. If the respired air in an inhabited room contain one part per thousand of Carbonic Acid it is found to be injurious. Give reasons for this difference.

VIII. A steamer sailing via the Suez Canal takes in passengers at one of the Egyptian ports. A few days afterwards some of these become affected with Smallpox. On arriving at Colombo the patients are landed, and the ship proceeds on her voyage to Australia. There are nine passengers for Adelaide ; four of these are successfully vaccinated at Colombo, two are vaccinated without effect, and three refuse to be operated on. The ship arrives at the Largs Bay anchorage sixteen days after leaving Colombo, no other cases of Smallpox having occurred. The Government consult you about sending the passengers for Adelaide into quarantine. What would you advise ? Give your reasons.

CLINICAL AND PRACTICAL EXAMINATIONS.

Clinical and Practical Examinations in Medicine, Surgery, Obstetrics and Diseases of Women, Ophthalmic and Aural Surgery were held at the Adelaide Hospital.

NOVEMBER, 1889.

Sir Thomas Elder's
Prizes in Physiology
1889.

EXAMINATION FOR SIR THOMAS ELDER'S
PRIZES IN PHYSIOLOGY AND CLASS
EXAMINATION.

(For Students not studying for a Degree.)

E. C. STIRLING, M.A., M.D., F.R.C.S. (Eng.).

Time—Three hours.

[N.B.—It is not expected that candidates will attempt more than five questions.

- I. What are the various uses and functions of the skin ?
 - II. What are the ultimate products of digestion, and how does each enter the blood circulation ?
 - III. How are sounds conducted from the air to the internal parts of the ear ?
 - IV. An emotion may cause a blush, pallor, or a fainting fit ; explain the sequence of events that has probably taken place in each of these events.
 - V. In what consists the value of milk as an article of diet ? What happens to milk when taken into the stomach, and to what industrial use is a knowledge of these facts applied.
 - VI. Draw a diagram, with explanations where necessary, of a model that would aid you in demonstrating the main physical facts of the circulation of the blood to a class of young students. What are the facts in question ?
-

DECEMBER, 1889.

ORDINARY EXAMINATION FOR THE DEGREE OF M.A.

BRANCH I.

CLASSICS AND COMPARATIVE PHILOLOGY.

(Authors specified.)

HERODOTUS III., IV., AND TACITUS HISTORIES I., II.

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—Herodotus iii., 32—

Ἄμφι δὲ τῷ θανάτῳ αὐτῆς διξὸς, ὡσπερ περὶ Σμέρδιος, λέγεται λόγος. Ἕλληνας μὲν λέγουσι, Καμβύσεα συμβαλέειν σκύμνον λέοντος σκύλακι κυνός· θεωρεῖν δὲ καὶ τὴν γυναῖκα ταύτην, νικωμένου δὲ τοῦ σκύλακος, ἀδελφεὸν αὐτοῦ ἄλλον σκύλακα, ἀπορρήξαντα τὸν δεσμὸν, παραγενέσθαι οἱ· δύο δὲ γενομένους οὕτω δὴ τοὺς σκύλακας ἐπικρατῆσαι τοῦ σκύμνου. καὶ τὸν μὲν Καμβύσεα ἦδεσθαι θεώμενον· τὴν δὲ, παρημένην δακρῦειν. Καμβύσεα δὲ μαθόντα τούτο, ἐπίερασθαι διότι δακρῦοι· τὴν δὲ εἰπεῖν, ὡς ἰδοῦσα τὸν σκύλακα τῷ ἀδελφεῷ τιμωρήσαντα, δακρῦσειε, μνησθεῖσά τε Σμέρδιος, καὶ μαθούσα ὡς κείνῳ οὐκ εἶη ὁ τιμωρήσων. Ἕλληνας μὲν δὴ διὰ τούτο τὸ ἔπος φασὶ αὐτὴν ἀπολέσθαι ὑπὸ Καμβύσεω, Αἰγύπτιοι δὲ, ὡς τραπέζῃ περικατημένων, λαβοῦσαν θρίδακα τὴν γυναῖκα περιτίλαι, καὶ ἐπανείρεσθαι τὸν ἄνδρα, κότερον περιτετιμένη ἢ θρίδαξ ἢ δασεία εἶη καλλίων. καὶ τὸν φάναι, δασείαν. τὴν δ' εἰπεῖν· “Ταύτην μὲν τοί κοτε σὺ τὴν θρίδακα ἐμμήσαο τὸν Κύρου οἶκον ἀποψιλώσας.”

Also—Herodotus iv., 73—

Οὕτω μὲν τοὺς βασιλέας θάπτουσι. τοὺς δὲ ἄλλους

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Σκύθας, ἐπεὶ ἀποθάνωσι, περιάγουσι οἱ ἀγχοτάτω προσήκοντες κατὰ τοὺς φίλους ἐν ἀμάξεισι κειμένους· τῶν δὲ ἕκαστος ὑποδεκόμενος εὐχάει τοὺς ἐπομένους, καὶ τῷ νεκρῷ πάντων παρατιθεῖ τῶν καὶ τοῖσι ἄλλοισι, ἡμέρας δὲ τεσσεράκοντα οὕτω οἱ ἰδιῶται περιάγονται ἔπειτα θάπτονται. Θάψαντες δὲ οἱ Σκύθαι, καθαίρονται τρόπῳ τοιῷδε. σμησάμενοι τὰς κεφαλὰς καὶ ἐκπλυνάμενοι, ποιέουσι περὶ τὸ σῶμα τάδε· ἐπεὶ ξύλα στήσωσι τρία ἐς ἄλληλα κεκλιμένα, περὶ ταῦτα πύλους εἰρινέους περιτείνουσι· συμφράξαντες δὲ ὡς μάλιστα, λίθους ἐκ πυρὸς διαφανέας ἐσβάλλουσι ἐς σκάφην κειμένην ἐν μέσῳ τῶν ξύλων τε καὶ τῶν πύλων. Ἔστι δὲ σφι κάρναβις φυομένη ἐν τῇ χώρῃ, πλὴν παχύτητος καὶ μεγάλους, τῷ λίνῳ ἐμφερεστάτη· ταύτη δὲ πολλῶν ὑπερφέρει ἢ κάρναβις. αὕτη καὶ αὐτομάτη καὶ σπειρομένη φύεται· καὶ ἐξ αὐτῆς Θρήϊκες μὲν καὶ εἴματα ποιέονται τοῖσι λινέοισι ὁμοίωτα· οὐδ' ἂν, ὅστις μὴ κάρνα τρίβων εἴη αὐτῆς διαγνοίη, λίνου ἢ καννάβιός ἐστι· ὅς δὲ μὴ εἶδὲ κω τὴν καννάβιδα, λίνεον δοκῆσει εἶναι τὸ εἶμα.

Also—Tacitus, Histories, i. 77—

Repetundarum criminibus sub Claudio ac Nerone ceciderant: placuit ignoscentibus verso nomine, quod avaritia fuerat, videri majestatem, cujus tum odio etiam bonæ leges peribant. Eadem largitione civitatum quoque ac provinciarum animos aggressus, Hispaliensibus et Emeritensibus familiarum adjectiones, Lingonibus universis civitatem Romanam, provinciæ Bæticæ Maurorum civitates dono dedit; nova jura Cappadociæ, nova Africæ, ostenta magis quam mansura. Inter quæ, necessitate præsentium rerum et instantibus curis excusata, ne tum quidem immemor amorum, statuas Poppææ per Senatus consultum reposuit. Creditus est etiam de celebranda Neronis memoria agitavisse, spe vulgum alliciendi. Et fuere qui imagines Neronis proponerent; atque etiam Othoni quibusdam diebus populus et miles, tanquam nobilitatem ac decus adstruerent, “Neroni Othoni,” acclamavit. Ipse in suspensio tenuit, vetandi metu vel agnoscendi pudore.

Write a note explaining the words, “Cujus tum odio etiam bonæ leges peribant.”

What was meant by majestas and repetundæ?

Translate—Tacitus, Histories i. 88—

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Primores Senatus ætate invalidi et longa pace desides : segnīs et oblita bellorum nobilitas ; ignarus militiæ Eques : quanto magis occultare et abdere pavorem nitebantur, manifestius pavidi. Nec deerant e contrario, qui ambitione stolidi, conspicua arma, insignes equos, quidam luxuriosos apparatus conviviorum et irritamenta libidinum, ut instrumenta belli, mercarentur. Sapientibus quietis et rei publicæ cura : levissimus quisque et futuri improvidus, spe vana tumens : multi afflicta fide in pace, ac turbatis rebus alacres, et per incerta tutissimi.

Sed vulgus, et magnitudine nimia communium curarum expers populus, sentire salutem belli mala. conversa in militum usum omni pecunia, intentis alimentorum pretiis : quæ motu Vindicis haud perinde plebem attriverant, securam tum urbe et provinciali bello, quod inter legiones Galliasque velut externum fuit. Nam ex quo divus Augustus res Cæsarum composuit, procul, et in unius sollicitudinem aut decus, populus Romanus bellaverat.

Translate—Tacitus, Histories ii. 96—

Prima Vitellio tertiæ legionis defectio nuntiatur, missis ab Aponio Saturnino epistolis, antequam is quoque Vespasiani partibus aggregaretur. Sed neque Aponius cuncta, ut trepidans re subita, perscripserat, et amici adulantes mollius interpretabantur : unius legionis eam seditionem, cæteris exercitibus constare fidem. In hunc modum etiam Vitellius apud milites disseruit, prætorianos nuper exauctoratos insectatus, a quibus falsos rumores dispergi, nec ullum civilis belli metum, asseverabat, suppresso Vespasiani nomine, et vagis per urbem militibus qui sermones populi coercerent. Id præcipuum alimentum famæ erat. Auxilia tamen e Germania Britanniaque et Hispaniis excivit, segniter et necessitatem dissimulans. Perinde legati provinciæque cunctabantur, Hordeonius Flaccus suspectis jam Batavis anxius proprio bello, Vettius Bolanus nunquam satis quietam Britannia, et uterque ambigui. Neque ex Hispaniis properabatur, nullo tum ibi consulari : trium legionum legati, pares jure et prosperis Vitellii rebus certaturi ad obsequium, adversam ejus fortunam ex æquo detrectabant.

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LATIN—PLAUTUS: MILES GLORIOSUS AND
MENÆCHMI.

GREEK—HOMER: ODYSSEY, BOOKS I.-VI.

D. J. BYARD, B.A.

Time—Three hours.

I. Translate—

- (a) *Pe.* Hercle vero liberum esse, id nimio multost lepidius.
Nam bona uxor, si qua educta sit usquam gentium,
Ubi ea possit inveniri? verum egone eam ducam domum,
Quae nunquam hoc dicat: 'eme, mi vir, lanam, tibi
unde pallium
Malacum et calidum conficiatur tunicaeque bonae
Ne algeas hac hieme;' hoc nunquam verbum ex uxore
audias:
Verum prius quam galli cantent, quae me ex somno
suscitet,
Dicat: 'da mihi, vir, kalendis meam qui matrem juverim:
Da qui farcit, da qui condit: da quod dem quinquatribus
Praecantatrici, conjectrici, ariolae atque aruspicae:
Flagitiumst, si nil mittetur: quo supercilio spicit.
Tum plicatricem clementer non potest quin munerem:
Jam pridem, quia nihil abstulerit, succenset toraria:
Tum obstetrix expostulavit mecum, parum missum sibi:
Quid? nutrici non missuru's quicquam, quae vernas alit?'
Haec atque horum similia alia damna multa mulierum
Me uxore prohibent, mihi quae hujus similes sermones
serat.

—Miles, 683-699.

- (b) *Pa.* Eho, an unquam prompsit antehac? responde
scelus.
Atque ut tu scire possis, edico tibi:
Si falsa dices, Lurcio, exeruciabere.
Lu. Itan vero? ut tu ipse me dixisse delices:
Post e sagina ego ejiciar cellaria,
Ut tibi qui promptet, alium suppromum pares.
Pa. Non edepol faciam: age eloquere audacter mihi.
Lu. Nunquam edepol vidi promere. verum hoc erat
Mihi imperabat, ego promebam postea.
Pa. Hoc illi crebro capite sistebant cadi.
Lu. Non hercle tam istoc valide cassabant cadi,
Sed in cella paulum loculi erat nimis lubrici:
Ibi erat dilibris aula sic propter cados:

Ea saepe deciens complebatur in die :
Ubi bacchabatur aula cassabant cadi.

Pa. Abi, abi intro jam vos in cella vinaria
Bacchanal facitis : jam hercle ego erum adducam a
foro.

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—Miles, 840-858.

(d) *Se.* Filia, heus !

Mu. Quid est ? quid agimus ?

Se. Quid, si ego huc servos cito ?

Ibo : adducam, qui hunc hinc tollant, et domi devinciant,
Priusquam turbarum quid faciat amplius.

Me. S. Enimvero, nisi

Occupo aliquod mihi consilium, hi me domum ad sese
auferent.

Pugnis me vetastin hujus ori quicquam parcere ?

Ni jam ex meis oculis abscedat in malam magnam crucem,
Faciam, quod jubes, Apollo !

Se. Fuge domum quantum potest :

Ne hic obtundat !

Mu. Fugio. Amabo, adserva istunc, mi pater,
Ne quo hinc abeat ! Sumne ego mulier misera, quae
illaec audio ?

Me. S. Haud male illanc a me amovi ; nunc hunc
impurissimum,

Tremulum, barbatum Tithonum, Cygno qui eluet patre,
Ita mihi imperas, ut ego hujus membra atque ossa atque
artua

Comminuam illo scipione, quem ipse habet ?

Se. Dabitur malum,

Me quidem si attigeris, aut si propius ad me accesseris !

Me. S. Faciam, quod jubes : securim capiam ancipitem,
atque hunc senem

Ossum fini dedolabo assulatim viscera !

Se. Enimvero illud praecavendum est, atque accuran-
dum mihi :

Sane ego illunc metuo, ut minatur, ne quid malefaxit
mihi.

Menæchmei, 744-761.

II. Write critical notes on the following :—Quid me vobis
tactio est ?—uterque id, quod rogabo, dicite—jam
stimulum in manum est—die septimi.

III. Parse and comment on the following :—Ibus ; comessis ;
fuat ; despexe ; sultis ; aibat.

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IV. (a) "Ὡς ἄρα φωνήσας ἠγήσατο, τοὶ δ' ἅμ' ἔποντο.
Οἱ δ' ἄρα πάντα φέροντες ἐυσσέλωμ' ἐπὶ νηὶ
Κάπθεσαν, ὡς ἐκέλευσεν Ὀδυσσῆος φίλος νιδὸς
"Ἄν δ' ἄρα Τηλέμαχος νηὸς βαῖν', ἦρχε δ' Ἀθήνη,
Νῆϊ δ' ἐνὶ πρύμνῃ κατ' ἄρ' ἔξετο. ἄγχι δ' ἄρ' αὐτῆς
"Ἐξετο Τηλέμαχος· νοὶ δὲ πρυμνήσι' ἔλυσαν,
"Ἄν δὲ καὶ αὐτοὶ βάντες ἐπὶ κληῖσι καθίζον.
Τοῖσιν δ' ἴκμενον οὖρον ἔει γλαυκῶπις Ἀθήνη,
Ἄκραῆ Ζέφυρον, κελάδοντ' ἐπὶ οἶνοπα πόντον.
Τηλέμαχος δ' ἐτάροισιν ἐποτρύνας ἐκέλευσεν
"Ὅπλων ἄπτεισθαι· τοὶ δ' ὀτρύνοντος ἄκουσαν.
Ἴστων δ' εἰλάτινον κοίλης ἔντοσθε μεσόδμησ
Στήσαν ἀείραντες, κατὰ δὲ προτόνοισιν ἔδησαν,
"Ἐλκον δ' ἰστία λευκὰ ἐϋστρεπτοῖσι βοεῖσιν.
"Ἐπρησεν δ' ἄνεμος μέσον ἰστίον, ἀμφὶ δὲ κῦμα
Στείρη πορφύρεον μεγαλ' ἴαχε νηὸς ἰούσης·
"Ἡ δ' ἔθειεν κατὰ κῦμα διαπρήσσουσα κέλευθον.
Δησάμενοι δ' ἄρα ὄπλα θοῖν ἀνὰ νῆα μέλαιναν
Στήσαντο κρητῆρας ἐπιστεφείας οἶνοιο,
Λεῖβον δ' ἀθανάτοισι θεοῖς ἀειγενέτησιν,
"Ἐκ πάντων δὲ μάλιστα Διὸς γλαυκῶπιδι κούρη.

Od. ii., ll. 413-433.

(b) Τὸν δ' αὖ Νεστορίδης Πεισίστρατος ἀντίον ἠΐδα·
"Ἀτρέϊδῃ Μενέλαε διοτρεφέες, ὄρχαμε λαῶν,
Κεῖνον μέντοι ὀδ' νιδὸς ἐτήτυμον, ὡς ἀγορεύεις·
"Ἄλλὰ σαόφρων ἐστὶ, νεμεσσάται δ' ἐνὶ θυμῷ
"Ὡδ' ἔλθων τὸ πρῶτον ἐπεσβολίας ἀναφάνειν
"Ἄντα σέθεν, τοῦ νῶϊ θεοῦ ὡς τερπομεθ' αὐδῆ,
Αὐτὰρ ἐμὲ προέηκε Γερήνιος ἵπποτα Νέστυρ
Τῷ ἅμα πομπὴν ἔπεισθαι· ἐέλδετο γάρ σε ἰδέσθαι,
"Ὀφρα οἱ ἦ τι ἔπος ὑποθήσῃαι ἠέ τι ἔργον.
Πολλὰ γὰρ ἄλγε' ἔχει πατρὸς παῖς οἰχομένοιο
"Ἐν μεγάροις, ᾧ μὴ ἄλλοι ἀοσητήρες ἔωσιν,
"Ὡς νῦν Τηλεμάχῳ ὁ μὲν οἴχεται, οὐδέ οἱ ἄλλοι
"Ἐῖσ' οἱ κεν κατὰ δῆμον ἀλάλοικεν κακότητα."

Od. iv., 155-167.

(c) "Υλῆ δὲ σπέος ἀμφὶ πεφύκει τηλεθώσῃ
Κλήθρη τ' αἰγείρός τε καὶ εὐώδης κυπάρισσος.
"Ἐνθα δὲ τ' ὄρνιθες τανυσίπτεροι εὐνάζοντο,
Σκῶπές τ' ἴρηκές τε τάνυγλωσσοὶ τε κορώναι
Εἰνάλαια τῆσιν τε θαλάσσια ἔργα μέμηλεν
"Ἡ δ' αὐτοῦ τετάνυστο περὶ σπέους γλαφυροῖο
"Ἡμερὶς ἠβῶσῃ, τεθήλει δὲ σταφυλήσιν.
Κρῆναι δ' ἐξείης πίσυρες ῥέον ὕδατι λευκῷ,

Πλησίαι ἀλλήλων τετραμμένοι ἀλλυδεις ἄλλη.
 Ἄμφι δὲ λειμώνες μαλακοὶ Ἴον ἠδὲ σελίνοῦ
 Θήλεον· ἔνθα κ' ἔπειτα καὶ ἀθάνατός περ ἐπελθὼν
 Θηήσαιοτο ἰδὼν καὶ τερφθείη φρεσὶν ἦσιν.

Od. v., 63-74.

- (d) Ὡς εἰπὼν δμῶεσσιν ἐκέκλετο, τοὶ δ' ἐπίθοντο.
 Οἱ μὲν ἄρ' ἐκτὸς ἀμαξαν εὐτροχον ἠμιονεῖην
 Ὀπλεον, ἠμιόνους θ' ὑπαγον ζεύξαν θ' ὑπ' ἀπήνη·
 Κούρη δ' ἐκ θαλάμοιο φέρεν ἑσθῆτα φαεινήν.
 Καὶ τὴν μὲν κατέθηκεν εὐξέστω ἔπ' ἀπήνη,
 Μήτηρ δ' ἐν κίστη ἐτίθει μενοεικέ εἰωδὴν
 Παντοίην, ἐν δ' ὄψα τίθει, ἐν δ' οἶνον ἔχευεν
 Ἄσκη ἐν αἰγείῳ. κούρη δ' ἐπεβήσετ' ἀπήνης.
 Δῶκεν δὲ χρυσέη ἐν ληκύθῳ ὑγρὸν ἔλαιον,
 Εἴως χυτλώσαιοτο σὺν ἀμφιπόλοισι γυναιξίν.
 Ἢ δ' ἔλαβεν μάστιγα καὶ ἠνία σιγαλόεντα,
 Μάστιξεν δ' ἔλααν· καναχὴ δ' ἦν ἠμιόνοϊν,
 Αἰ δ' ἄμοτον τανύοντο, φέρον δ' ἑσθῆτα καὶ αὐτήν,
 Οὐκ οἶην· ἅμα τῇ γε καὶ ἀμφίπολοι κίον ἄλλαι.

Od. vi., 71-84.

V. Discuss briefly the question of authorship of the Homeric poems.

LATIN AND GREEK.

(From books not specified.)

PROFESSOR KELLY, M.A., AND D. J. BYARD, B.A.

Time—Three hours.

Translate—

- (a) Dicit aliquis, Quid tu ista permagno aestimas? Ego vero ad meam rationem usumque meum non aestimo: verumtamen a vobis ita arbitror spectari oportere quanti haec eorum iudicio, qui studiosi sunt harum rerum, aestimentur, quanti venire soleant, quanti haec ipsa si palam libereque venirent venire possent, denique ipse Verres quanti aestimet. Nunquam si x cccc. Cupidinem illum putasset, commisisset ut propter eum in sermonem hominum atque in tantam vituperationem veniret. Quis vestrum igitur nescit quanti haec aestimentur? In auctione signum aeneum non maximum HS xl. millibus venire non vidimus? Quid si velim nominare homines,

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qui aut non minoris aut etiam pluris emerint, nonne possum? Etenim qui modus est in his rebus cupiditatis, idem est aestimationis: difficile est enim facere pretio si non libidini feceris. Video igitur Heium neque voluntate neque difficultate aliqua temporis nec magnitudine pecuniæ adductum esse ut haec signa venderet, teque ista simulatione emptionis, vi, metu, imperio, fascibus, ab homine eo, quem una cum ceteris sociis non solum potestati tuae sed etiam fidei populus Romanus commiserat, eripuisse atque abstulisse.

(b) Nil intentatum nostri liquere poetae,
Nec minimum meruere decus vestigia Graeca
Ausi deserere et celebrare domestica facta,
Vel qui praetextas vel qui docuere togatas.
Nec virtute foret clarisve potentius armis
Quam lingua Latium, si non offenderet unum
Quemque poetarum limae labor et mora. Vos, O
Pompilius sanguis, carmen reprehendite quod non
Multa dies et multa litura coercoit atque
Perfectum decies non castigavit ad unguem.
Ingenium misera quia fortunatius arte
Credidit et excludit sanos Helicone poetas
Democritus, bona pars non unguis ponere curat,
Non barbam, secreta petit loca, balnea vitat.
Nanciscetur enim pretium nomenque poetae,
Si tribus Anticyris caput insanabile nunquam
Tonsori Licino commiserit.

(c) Numquam imprudentibus imber
Obfuit: aut illum surgentem vallibus imis
Aeriae fugere grues, aut bucula caelum
Suspiciens patulis captavit naribus auras,
Aut arguta lacus circumvolitavit hirundo,
Et veterem in limo ranae cecinere querelam.
Saepius et tectis penetralibus extulit ova
Angustum formica terens iter, et bibit ingens
Arcus, et e pastu decedens agmine magno
Corvorum increpuit densis exercitus alis.
Jam varias pelagi volucres, et quae Asia circum
Dulcibus in stagnis rimantur prata Caystri,
Certatim largos humeris infundere rores,
Nunc caput objectare fretis, nunc currere in undas,
Et studio incassum videas gestire lavandi.
Tum cornix plena pluviam vocat improba voce
Et sola in sicca secum spatiat arena

Ne nocturna quidem carpentes pensa puellae
Nescivere hiemem, testa cum ardente viderent
Scintillare oleum et putris concreescere fungos.

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Translate—Demosthenes, Philippic II. 6, p. 34—

Πρῶτον μὲν, εἴ τις, ὦ ἄνδρες Ἀθηναῖοι, θαρρεῖ ὁρῶν ἡλικὸς ἤδη καὶ ὄσων κύριός ἐστι Φίλιππος, καὶ μηδένα οἶεται κίνδυνον φέρειν τοῦτο τῇ πόλει μηδ' ἐφ' ὑμᾶς πάντα παρασκευάζεσθαι, θαυμάζω, καὶ δεηθῆναι πάντων ὁμοίως ὑμῶν βούλομαι τοὺς λογισμοὺς ἀκοῦσαί μου διὰ βραχέων, δι' οὓς τάναντία ἐμοὶ παρέστηκε προσδοκᾶν καὶ δι' ὧν ἐχθρὸν ἡγοῦμαι Φίλιππον, ἵν' ἔαν μὲν ἐγὼ δοκῶ βέλτιον προοράν, ἐμοὶ πεισθῆτε, ἔαν δ' οἱ θαρροῦντες καὶ πεπιστευκότες αὐτῷ, τούτοις προσθήσεσθε. ἐγὼ τοίνυν, ὦ ἄνδρες Ἀθηναῖοι, λογιζομαι, τίνων ὁ Φίλιππος κύριος πρῶτον μετὰ τὴν εἰρήνην κατέστη; Πυλῶν καὶ τῶν ἐν Φωκεῦσι πραγμάτων. τί οὖν; πῶς τούτοις ἐχρήσατο; ἃ Θηβαῖοις συμφέροι καὶ οὐχ ἃ τῇ πόλει, πράττειν προείλετο. τί δὴ ποτε; ὅτι πρὸς πλεονεξίαν, οἶμαι, καὶ τὸ πάνθ' ὑφ' ἑαυτῷ ποιήσασθαι τοὺς λογισμοὺς ἐξετάζων, καὶ οὐ πρὸς εἰρήνην οὐδ' ἡσυχίαν οὐδὲ δίκαιον οὐδὲν, εἶδε τοῦτ' ὀρθῶς, ὅτι τῇ μὲν ἡμετέρᾳ πόλει καὶ τοῖς ἡθεσι τοῖς ἡμετέροις οὐδὲν ἂν ἐνδείξαιτο τοσοῦτον οὐδὲ ποιήσειεν ὑφ' οὐ πεισθέντες ἡμεῖς τῆς ἰδίας ἐνεκ' ὠφελείας τῶν ἄλλων τινὰς Ἑλλήνων ἐκείνῳ προείπε, ἀλλὰ καὶ τοῦ δίκαιου λόγον ποιούμενοι, καὶ τὴν προσοῦσαν ἀδοξίαν τῷ πράγματι φεύγοντες, καὶ πάνθ' ἃ προσήκει προορώμενοι, ὁμοίως ἐναντίωσασθε, ἂν τι τοιοῦτον ἐπιχειρῆ πράττειν, ὥσπερ ἂν εἰ πολεμοῦντες τύχοιτε.

Also—Thucydides, p. 120—

Οἱ δὲ Συρακόσιοι ἐν τούτῳ πυνθανόμενοι αὐτῶν τὸν ἐπίπλουν αὐθις ταῖς ναυσὶν ἀποπειράσαι ἐβούλοντο καὶ τῇ ἄλλῃ παρασκευῇ τοῦ πελοῦ, ἣν περ ἐπ' αὐτὸ τοῦτο πρὶν ἔλθειν αὐτοὺς φθάσαι βουλόμενοι ξυνέλεγον. παρεσκευάσαντο δὲ τό τε ἄλλο ναυτικὸν ὡς ἐκ τῆς προτέρας ναυμαχίας τι πλέον ἐνείδον σχήσοντες, καὶ τὰς πρώρας τῶν νεῶν ξυντεμνόντες ἐς ἔλασσον στεριφωτέρας ἐποίησαν, καὶ τὰς ἐπωπίδας ἐπέθεσαν ταῖς πρώραις παχείας, καὶ ἀντήριδας ἀπ' αὐτῶν ὑπέτειναν πρὸς τοὺς τοίχους ὡς ἐπὶ ἕξ πήχεις ἐντός τε καὶ ἐξωθεν, ὥπερ τρόπῳ καὶ οἱ Κορίνθιοι πρὸς τὰς ἐν τῇ Ναυπάκτῳ ναῦς ἐπισκευασάμενοι πρώραθεν ἐναντιμάχον, ἐνόμισαν γὰρ οἱ Συρακόσιοι πρὸς τὰς τῶν Ἀθηναίων ναῦς οὐχ ὁμοίως ἀντιναυπηγημένας, ἀλλὰ λεπτὰ τὰ πρώραθεν ἐχούσας διὰ τὸ μὴ ἀντιπρώροις μᾶλλον αὐτοὺς ἢ ἐκ περίπλου ταῖς ἐμβολαῖς χρήσθαι, οὐκ ἔλασσον σχήσειν,

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καὶ τὴν ἐν τῷ μεγάλῳ λιμένι ναυμαχίαν, οὐκ ἐν πολλῷ
πολλαῖς ναυσὶν οὐσαν, πρὸς ἑαυτῶν ἔσεσθαι· ἀντίπρωροι
γὰρ ταῖς ἐμβολαῖς χρώμενοι ἀναρρήξειν τὰ πύραθρον
αὐτοῖς, στερίφοις καὶ παχέσι πρὸς κοίλα καὶ ἀσθενῆ παι-
οντες τοῖς ἐμβόλοις.

COMPOSITION AND GRAMMAR—LATIN AND GREEK.

PROFESSOR KELLY, M.A., AND D. J. BYARD, B.A.

Time—Three hours.

For Latin Prose—

A soldier from his earliest youth, Moore thirsted for the honours of his profession, and feeling that he was worthy to lead a British army, hailed the fortune that placed him at the head of the troops destined for Spain. As the stream of time passed, the inspiring hopes of triumph disappeared, but the austerer glory of suffering remained, and with a firm heart he accepted that gift of a severe fate. Confiding in the strength of his genius, he disregarded the clamours of presumptuous ignorance, and opposing sound military views to the foolish projects so insolently thrust upon him by the ambassador, he conducted his long and arduous retreat with sagacity, intelligence and fortitude; no insult disturbed, no falsehood deceived him, no remonstrance shook his determination; fortune frowned, without subduing his constancy; death struck, but the spirit of the man remained unbroken, when his shattered body scarcely afforded it a habitation.

—Napier.

For Greek Prose—

Slowly and stealthily the Indians advanced, while the Christian camp, hushed in profound silence, seemed to them buried in slumber. But no sooner had they reached the slope of the rising ground, than they were astonished by the deep battle-cry of the Spaniards, followed by the instantaneous apparition of the whole army, as they sallied forth from the works, and poured down the sides of the hill. Brandishing aloft their weapons, they seemed to the troubled fancies of the Tlascalans, like so many spectres or demons hurrying

to and fro in mid air, while the uncertain light magnified their numbers, and expanded the horse and his rider into gigantic and unearthly dimensions. Scarcely waiting the shock of their enemy, the panic-struck barbarians let off a feeble volley of arrows, and offering no other resistance, fled rapidly and tumultuously across the plain.

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What do you consider to be the best explanation of the use in Greek of singular verb with Neuter Plural Nominative ?

Write a short description of the origin and constitution of the Athenian Boulé and Ecclesia, mentioning the special duties of each.

Illustrate by quotations the uses of *adeo*, *ergo*, *scilicet*, *utpote*, and *quin*.

Comment on the constructions in the following :—

- (1) *Judice quo nosti populo.*
- (2) *Cereus in vitium flecti.*
- (3) *Pars ingenti feretro
Triste ministerium.*
- (4) *Ipse dux cum aliquot principibus capiuntur.*
- (5) *Deum invocantes cujus ad sollemne venissent.*

GREEK AND ROMAN HISTORY AND COMPARATIVE PHILOLOGY.

D. J. BYARD, B.A.

Time—Three hours.

- I. Illustrate the importance of geographical situation with reference to the history of Rome, and of Athens.
- II. Give an account of the constitution and social life of Sparta.
- III. How did the Roman provincial system arise, and what were its ultimate effects on Rome herself ?
- IV. Give reasons for the success of Macedon in Greece, and trace briefly the career of Alexander the Great.
- V. Give, with dates, a short sketch of the Second Punic War, and account for its issue.
- VI. How did Athens gain her supremacy, and how lose it ?
- VII. Explain and illustrate the terms—Dynamic-change, phonetic decay, labialism, predicative root, pronominal root, stem.

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- VIII. Analyse completely the forms—*σέθεν. ἐρρύθην. εἰσπήκειν. πατήρ.* *divom. aperuistis. homullus. amabam. paciscor.*
- IX. What traces are there of the Ablative in Greek and of the Optative in Latin?
- X. Write down the original forms of all comparative and superlative suffixes in Greek and Latin; and discuss the forms—*minus. sinister. satis. δεύτερος. solistimum. θάσσων.*
- XI. Give evidence to show what sounds had a tendency to disappear in Greek and in Latin.
- XII. What light does Philology throw on the origin and syntax of Prepositions? Give examples.

BRANCH II. MATHEMATICS.

MATHEMATICS. PART I.

A. NEWHAM, ESQ., M.A.

Time—Three hours.

- I. Find the relation which must hold between a, b, c, d, e, f in order that $ay^2 + bxy + cx^2 + dy + ex + f$ may be able to be resolved into rational factors of the first degree.
- II. Solve the equations
- (i.) $\frac{\sqrt{1+a^2} - a \sqrt{1+x^2}}{\sqrt{1+x^2} - x \sqrt{1+a^2}} = a,$
- (ii.) $x^2 + a(2x + y + z) = y^2 + b(x + 2y + z) = z^2 + c(x + y + 2z) = (x + y + z)^2.$
- III. Explain what is meant by a determinant, and prove that a determinant is not altered in value by adding to all the elements of any row the same multiples of the corresponding elements of any other row.
- Show that $\begin{vmatrix} 1 & a & a^2 - bc \\ 1 & b & b^2 - ca \\ 1 & c & c^2 - ab \end{vmatrix} = 0.$
- IV. Show that

(i.) $\sin 2A = 2 \sin A \cos A$

(ii.) $(2 \sin A + \sec A)(2 \cos A - \operatorname{cosec} A) = (\sin A - \cos A)(\sin A + \cos A)(\cot A - \tan A).$

- V. Find the radius of a circle inscribed in a given triangle. If r be this radius, and R that of the circumscribing circle, prove that

$$2r + 2R = a \cot A + b \cot B + c \cot C.$$

- VI. Sum the series

$$\sin \theta \cos \theta + \frac{\sin 2\theta \cos^2 \theta}{1.2} + \frac{\sin 3\theta \cos^3 \theta}{\underline{3}} + \dots \text{to infinity.}$$

- VII. Show that all points whose co-ordinates satisfy a linear equation $Ax + By + C = O$ lie on a straight line.

What is the geometrical meaning of $Ax + By + C$ when it is not = O ?

Show that the locus of either focus of an ellipse which touches two straight lines, and has its centre at a fixed point is a rectangular hyperbola.

- VIII. Find the equations to a straight line passing through two given points.

Show that the straight lines joining the middle points of opposite edges of any tetrahedron all meet in a point and bisect one another.

- IX. Prove that $f(x+h) = f(x) + hf'(x+\theta h)$ where θ is a proper fraction, mentioning the conditions which limit the truth of the assertion.

Expand $e^{\frac{x}{a}} \left(1 + \frac{x}{a} + \frac{x^2}{a^2}\right)$ in powers of x and find the general term.

- X. Show that if y is a function of x which is a minimum when $x=a$; then, when a is substituted for x , $\frac{dy}{dx} = 0$, and $\frac{d^2y}{dx^2}$ is generally positive.

Find the maxima and minima values of $x^3 + px^2 + qx + r$ distinguishing between them. Consider specially the case when $p^2 = 3q$.

- XI. Evaluate (i.) $\int e^x \cos 2x dx$,
(ii.) $\int_0^c \frac{c^2 - x^2}{(c^2 + x^2)^2} dx$,

- XII. Find the volume and surface generated by the revolution about the initial line of the curve

$$r = a(1 + \cos \theta).$$

MATHEMATICS. PART I.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. In the examination of the nature of the reactions that occur at a hinge or joint of framework in equilibrium, we are sometimes able to decide at inspection the directions of the reactions. Under what circumstances can this be done, and what are the considerations which guide us in doing so?

Six uniform rods of equal length and equal given weight are connected by smooth hinge joints at their extremities so as to constitute the six edges of a regular tetrahedron: one face of the tetrahedron rests on a smooth horizontal plane. Show that the longitudinal strain on each of the rods of the lowest face is $\frac{1}{2\sqrt{6}}$ \times weight of a rod.

- II. A uniform rod passes over one peg and under another, the coefficient of friction between each peg and the rod being μ . The pegs are b feet apart, and the straight line joining them makes an angle β with the horizon. Show that equilibrium is not possible unless the length of the rod is $> b \left(1 + \frac{\tan \beta}{\mu} \right)$ feet.

- III. Prove, from mechanical considerations, or otherwise, that if O be a point within a triangle ABC

$OA^2 \tan A + OB^2 \tan B + OC^2 \tan C = \text{minimum}$
when O is the "centre of the perpendiculars,"

- IV. Investigate the equation of the "catenary of uniform strength," *i.e.*, the curve in which a string will hang whose normal section at any point is proportional to the tension at that point.

An endless uniform inextensible string hangs in two festoons over two small smooth pegs in the same horizontal line. Prove that if θ be the inclination to the vertical of one branch of the string at its highest point, the inclination of the other branch at the same point must be either θ or ϕ , where ϕ has only *one* value and is a function of θ only. If $\cot \frac{1}{2}\theta = e^{\sec \theta}$, then $\phi = \theta$.

- V. Show that if matter be supposed to attract according to the

law of the inverse square of the distance, the attraction of a circular plate of density ρ and thickness κ on a particle in the axis of the plate is $2\pi\kappa\rho(1 - \cos\alpha)$.

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Dr. Siemens invented an instrument to measure the depth of the sea under a ship on the principle of balancing gravitation by the force of a spring. If the mean surface density of the earth be three times that of sea-water, and the mean density of the whole earth five and a-half times that of sea-water, show that for a depth h of sea the diminution of gravity is $\frac{6}{11} \frac{h}{R} g$ where R is the radius of the earth.

VI. A particle moves about a centre of attraction varying directly as the distance: determine the motion.

Two particles move from one of the points of intersection of two concentric similar and equal (but not similarly situated ellipses) so that each describes one of the ellipses freely, with an acceleration tending towards the centre: show that the line joining them is always parallel to one or other of the common diameters, the choice depending on the manner of projection.

VII. Explain what is meant by the hodograph, and show that for all conic sections described about a focus the hodograph is a circle.

Prove that the hodograph of a catenary described under the action of a force parallel to the axis is a straight line described with a velocity proportional to that in the catenary.

VIII. If a particle move under given forces on a given smooth surface, show how to find the equations of motion and determine the pressure on the surface.

A smooth vertical plane is revolving about a vertical axis with uniform angular velocity w . From some point in the axis a particle is projected horizontally so as to move in the plane: show that the equation to the curve traced on the plane is

$$x = \frac{V}{2w} \left\{ \begin{array}{l} w \sqrt{\left(\frac{2z}{g}\right)} - w \sqrt{\left(\frac{2z}{g}\right)} \\ e \quad - e \end{array} \right\}$$

V being the velocity of projection, the axis of x being horizontal and that of z vertical.

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- IX. Form the pressure equations, and show how to find the surfaces of equal pressure, in fluid at rest under the action of given forces.

Air of density D is placed within a closed cylinder, which is then made to revolve with uniform angular velocity about the axis. When the fluid has acquired a position of relative equilibrium, prove that $D = \frac{\rho' - \rho}{\log \rho' - \log \rho}$ where ρ and ρ' are the densities at the centre and circumference. The effect of gravity may be neglected.

- X. Show how to find the Centre of Pressure of a plane surface immersed in a fluid.

A solid uniform sphere floats in a liquid of twice its own density. If it were cloven in two by a vertical plane through the centre, would the two halves fall apart?

- XI. Show, from hydrostatic considerations, or otherwise, that if any number of rods and strings are joined together so as to form a closed figure, a rod and string being alternate, then, when the area included is a maximum, the strings form arcs of the same circle of which the rods are chords.

MATHEMATICS. PART II.

THEORY OF EQUATIONS AND ANALYTICAL GEOMETRY.

A. NEWHAM, Esq., M.A.

Time—Three hours.

- I. Prove that in an equation with real coefficients, imaginary roots occur in pairs.

Show also that if the coefficients be rational, and $a + \sqrt{b}$ be a root, $a - \sqrt{b}$ is also a root.

One of the roots of the equation—

$$x^4 - 2a^2x^2 + 4ab^2x + a^4 - b^4 = 0$$

is $a + b\sqrt{-1}$. Solve the equation.

- II. Investigate the relations between the coefficients and the roots of a rational algebraic equation.

- III. Enunciate Sturm's Theorem, and apply it to find the number and position of the real roots of the equation $x^3 + 6x^2 + 4 = 0$.

- IV. If n be a prime number, and a any root of the equation $x^n - 1 = 0$, except unity, prove that all the roots of the equation are powers of a .

Find, in a real form, the sum of the series—

$$1 + \frac{x^3}{|3|} + \frac{x^6}{|6|} + \dots \text{to infinity.}$$

- V. When the equation to a conic is given in the form $ax^2 + 2c'xy + by^2 + 2a'x + 2b'y + c = 0$, find the co-ordinates of the centre, and an equation for finding the eccentricity.

- VI. Shew how to find the envelope of a straight line whose equation contains an indeterminate constant of the second degree.

Two given parallel straight lines are cut in the points P Q by a straight line which passes through a fixed point. Find the envelope of the circle on P Q as diameter.

- VII. Find the conditions that the curve represented by the general trilinear equation of the second degree may be a circle.

Find the equation to the nine point circle of the triangle of reference.

- VIII. Shew that the reciprocal of any circle with respect to a point is a conic whose focus is the point of reciprocation.

Two conics have a common focus S and two common tangents PP' , QQ' ; prove that the angles PSP' , QSQ' , are equal or supplementary.

- IX. Find the relations between the coordinates of the extremities of conjugate diameters of the ellipsoid

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

A plane is drawn through the extremities of three semi-conjugate diameters of an ellipsoid: find the locus of the intersection of this plane with the perpendicular on it from the centre.

- X. The locus of the poles of a given plane with respect to a system of confocal conicoids is a straight line.

If normals are drawn to the series of surfaces $\frac{x^2 + y^2}{a^2} + \frac{z^2}{c^2 + \lambda} = 1$

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from a fixed point on the axis of z , their feet will lie upon a fixed sphere.

- XI. If two surfaces cut one another at a constant angle, and if their curve of intersection be a line of curvature on one surface, it will also be a line of curvature on the other.

MATHEMATICS. PART II.

DIFFERENTIAL CALCULUS AND DIFFERENTIAL EQUATION.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. If $y = \tan x$, prove the following equality:—

$$\frac{d^n y}{dx^n} = \frac{d^{n-1} y}{dx^{n-1}} \cdot y + (n-1) \frac{d^{n-2} y}{dx^{n-2}} \cdot \frac{dy}{dx} + \frac{(n-1)(n-2)}{1 \cdot 2} \frac{d^{n-3} y}{dx^{n-3}} \frac{d^2 y}{dx^2} + \dots$$

- II. If ϕ be any functional symbol, and

$$\phi(a+h) = \phi(a) + \phi'(a+\theta h)h,$$

and if p, q , be the greatest and least values of $\phi''(x)$ between $x=a$ and $x=a+h$, prove that $\frac{h}{p-q} \frac{d\theta}{da}$ lies

between $\frac{1}{q}$ and $-\frac{1}{p}$

- III. By what right do we treat symbols of operation as if they were quantities?

Show that

$$e^{h \frac{d}{dx}} f(x) = f(x+h),$$

and hence that

$$e^{\tan a \cos^2 \theta \frac{d}{d\theta}} f\left(\frac{\tan \theta}{\sec^2 a - \tan a \tan \theta}\right) = f\left\{\tan(\theta+a)\right\}$$

- IV. Show how to find the length of any curve whose equation is given in the form $p=f(r)$, where p is the perpendicular on the tangent and r the radius vector of the point of contact.

If any curve cut the co-ordinate axes in A and B , prove that $\int_0^{\frac{1}{2}\pi} \frac{d \log p}{\alpha \psi} d \theta = \log \frac{b}{a}$, where $OA = a$, $OB = b$, and ψ is the angle the tangent at any point makes with the axis of x .

V. The envelope of the spheres described upon the chords of the circle $x^2 + y^2 = 2ax$, $z = 0$, which pass through the origin, as diameters has for its equation $(x^2 + y^2 + z^2 - ax)^2 = a^2(x^2 + y^2)$.

VI. Find the length of the radius of curvature at any point of a plane curve.

Find the class of curves possessing the property that the radius of curvature at any point is proportional to the cube of that portion of the tangent at the point which is intercepted between the point of contact and the axis of x .

VII. Show how to solve a differential equation of the form

$$\frac{dy}{dx} + Py = Q$$

where P and Q are functions of x ; and solve the equations

$$(i.) \frac{dy}{dx} - \frac{y}{x} = \log x$$

$$(ii.) \frac{dy}{dx} - \frac{y}{x} = y^2 \log x$$

VIII. The following two differential equations of the first order have a common primitive

$$\phi\left(x, y, \frac{dy}{dx}\right) = a; \quad \psi\left(x, y, \frac{dy}{dx}\right) = b.$$

Give Lagrange's method of obtaining the solution of the equation

$$F\left\{\phi\left(x, y, \frac{dy}{dx}\right), \psi\left(x, y, \frac{dy}{dx}\right)\right\} = 0.$$

Extend the method to the case of three differential equations of the second order obtained from a common primitive, and solve the equation

$$y - x \frac{dy}{dx} + \frac{1}{2}x^2 \frac{d^2y}{dx^2} = f\left(\frac{d^2y}{dx^2}, \frac{dy}{dx} - x \frac{d^2y}{dx^2}\right)$$

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- IX. Give a brief account of the symbolical method of solving a linear differential equation with constant co-efficients: and solve in this way

$$(i.) \frac{d^2y}{dx^2} + \frac{dy}{dx} - 2y = 0.$$

$$(ii.) \frac{d^2y}{dx^2} + \frac{dy}{dx} - 2y = \sin x.$$

$$(iii.) \frac{d^2y}{dx^2} + \frac{dy}{dx} - 2y = e^x \sin x.$$

- X. State Lagrange's method of solving the partial differential equation

$$P \frac{dz}{dx} + Q \frac{dz}{dy} = R$$

Where $P, Q, R,$ are functions of $x, y, z.$

Solve the equation

$$\left\{ m(x+y) - n(x+z) \right\} \frac{dz}{dx} + \left\{ n(y+z) - l(y+x) \right\} \frac{dz}{dy} \\ = l(z+x) - m(z+y).$$

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ORDINARY EXAMINATION FOR THE DEGREE
OF B.A.

FIRST YEAR

LATIN. (Pass Paper.)

PROFESSOR KELLY, M.A.

Time—Three hours.

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Translate—

Prospera lux oritur ; linguisque animisque favete :
Nunc dicenda bono sunt bona verba die.
Lite vacent aures, insanaque protinus absint
Jurgia ; differ opus, livida turba, tuum.
Cernis odoratis ut luceat ignibus aether,
Et sonet accensis spica Cilissa focus ?
Flamma nitore suo templorum verberat aurum,
Et tremulum summa spargit in aede jubar.
Vestibus intactis Tarpeias itur in arces,
Et populus festo concolor ipse suo est.
Jamque novi praeceunt fasces, nova purpura fulget,
Et nova conspicuum pondera sentit ebur.

Also,

Quod tamen ex ipsis licuit mihi discere fastis :
Sacravere patres hoc duo templa die.
Accepit Phoëbo nymphaque Coronide natum
Insula, dividua quam premit amnis aqua.
Juppiter in parte est ; cepit locus unus utrumque,
Junctaque sunt magno templa nepotis avo.

Also,

Perlege dispositas generosa per atria ceras ;
Contigerunt nulli nomina tanta viro.

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Africa victorem de se vocat : alter Isauras
Aut Cretum domitas testificatur opes ;
Hunc Numidae faciunt, illum Messana superbum ;
Ille Numantina traxit ab urbe notam.
Et mortem et nomen Druso Germania fecit.
Me miserum, virtus quam brevis illa fuit !
Si petat a victis, tot sumat nomina Caesar,
Quot numero gentes maximus orbis habet.

Explain all the Mythical and Historical allusions in these passages.

Translate—

Manarat sermo in consilio, pecuniae quamdam mentionem inter iudices esse versatam. Res neque tam fuerat occulta, quam erat occultanda : neque tam erat aperta, quam rei publicae causa aperienda. In ea obscuritate ac dubitatione omnium, Canutio, perito homini, qui quodam odore suspicionis Staienum corruptum esse sensit, neque dum rem perfectam arbitraretur, placuit repente pronuntiari : DIXERUNT. Hic tum Oppianicus non magno opere pertimuit. Rem a Staieno perfectam esse arbitrabatur. In consilium erant ituri iudices xxxii ; sententiis xvi absolutio confici poterat. Quadragena millia nummum in singulos indices distributa eum numerum sententiarum conficere debebant, ut ad cumulum, spe maiorum praemiorum, ipsius Staieni sententia septimadecima accederet. Atque etiam casu tum, quod illud repente erat factum, Staienus ipse non aderat. Causam nescio quam apud iudicem defendebat. Facile hoc Habitus patiebatur : facile Canutius : at non Oppianicus, neque patronus eius L. Quintius : qui quum esset eo tempore tribunus plebis, convicium C. Iunio, iudici quaestionis, maximum fecit, VT NE SINE AELIO IN CONSILIVM IRETUR : quumque id ei per viatores consulto negligentius agi videretur, ipse e publico iudicio ad privatam Staieni iudicium profectus est, et illud pro potestate dimitti iussit : Staienum ipse ad subsellia adduxit.

Explain the usage alluded to in the word Dixerunt.

Also,

Huius Staieni persona, populo iam nota atque perspecta, ab nulla turpi suspicione abhorrebat : suppressam esse ab eo pecuniam, quam pro reo pronuntiasset, qui erant in concione, non intelligebant. Neque enim docebantur.

Versatam esse in iudicio mentionem pecuniae sentiebant : innocentem reum condemnatum esse audiebant : Staieni sententia condemnatum videbant : non gratis id ab eo factum esse, quod hominem norant, iudicabant. Similis in Bulbo, in Gutta, in aliis nonnullis suspicio consistebat.

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Also,

Habebit igitur, te sciente et vidente, curia senatorem, populus Romanus iudicem, res publica civem sine ignominia quemquam, qui ad perniciem innocentis, fidem suam et religionem pecunia commutarit ? et, qui pretio adductus eripuerit patriam, fortunas, liberos civi innocenti, is censoriae severitatis nota non inuretur ? Tu es praeffectus moribus, tu magister veteris disciplinae et severitatis, si aut retines quemquam sciens in senatu, scelere tanto contaminatum, aut statuis, qui in eadem culpa sit, non eadem poena affici convenire ? Aut quam conditionem supplicii maiores in bello timiditati militis propositam esse voluerunt, eandem tu in pace constitues improbitati senatoris ? Quod si hoc exemplum ex re militari ad animadversionem censoriam transferendum fuit ; sortitione id ipsum factum esse oportuit. Sin autem sortiri ad poenam, atque hominum delictum fortunae iudicio committere minime censorium est ; certe in multorum peccato carpi paucos ad ignominiam et turpitudinem non oportet.

“ Qui coisset quo quis condemnaretur.”

Give the substance of the law here quoted, is so far as it bears on the case of Cluentius.

Draw a sketch showing the family and marriage relationships of the principal parties in the suit against Cluentius.

Translate into Latin prose—

In these circumstances, the intelligence of a war in Britain and of an invasion of the province by the barbarians of the North, was received with pleasure by Severus. Though the vigilance of his lieutenants might have been sufficient to repel the distant enemy, he resolved to embrace the honourable pretext of withdrawing his sons from the luxury of Rome, which enervated their minds and irritated their passions, and of inuring their youth to the toils of war and government.

HONOUR PAPER.

The Honour Paper in Latin for the First Year was the same as the Pass Paper in Latin for the Second Year.

GREEK (Pass Paper).

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—Homer, Iliad I., 26-32—

“Μή σε, γέρον, κοίλησιν ἐγὼ παρὰ νηυσὶ κιχείω,
ἢ νῦν δηθύνοντ' ἢ ὕστερον αὐτίς ἰόντα.
μή νύ τοι οὐ χραίσμη σκῆπτρον καὶ στέμμα θεοῦ.
τῆν δ' ἐγὼ οὐ λύσω· πρὶν μιν καὶ γῆρας ἐπεισιν
ἡμετέρῳ ἐνὶ οἴκῳ, ἐν Ἀργεῖ, τηλόθι πάτρης,
ἰστὸν ἐποιομένην, καὶ ἐμὸν λέχος ἀντιώσασαν.
ἀλλ' ἴθι, μή μ' ἐρέθιζε, σαώτερος ὣς κε νέηαι.”

Write notes on the words κιχείω, χραίσμη, πρὶν (construction), ἀντιώσασαν, σαώτερος.

Also—Homer, Iliad I., 121-139—

Τὸν δ' ἡμείβετ' ἔπειτα ποδάρκης διὸς Ἀχιλλεύς·
“Ἄτρείδη κῦδιστε, φιλοκτεανώτατε πάντων,
πῶς γάρ τοι δώσουσι γέρας μεγάθυμοι Ἀχαιοὶ ;
οὐδὲ τί που ἔδμεν ξυνήϊα κείμενα πολλά·
ἀλλὰ, τὰ μὲν πολίων ἐξεπράθομεν, τὰ δέδασται,
λαοὺς δ' οὐκ ἐπέοικε παλίλλογα ταῦτ' ἐπαγείρειν.
ἀλλὰ σὺ μὲν νῦν τήνδε θεῶ πρόες· αὐτὰρ Ἀχαιοὶ
τριπλῆ τετραπλῆ τ' ἀποτίσσομεν, αἶ κέ ποθι Ζεὺς
δοῖσι πόλιν Τροίην εὐτείχεον ἐξαλαπάξαι.”

Τὸν δ' ἀπαμειβόμενος προσέφη κρείων Ἀγαμέμνων·
“Μηδ' οὕτως, ἀγαθὸς περ ἔων θεοείκελ' Ἀχιλλεῦ,
κλέπτε νόω· ἐπεὶ οὐ παρελεύσεαι, οὐδὲ με πείσεις.
ἢ ἐθέλεις, ὄφρ' αὐτὸς ἔχης γέρας, αὐτὰρ ἔμ' αἴτως
ἦσθαι δευόμενον ; κέλευαι δέ με τήνδ' ἀποδοῦναι ;
ἀλλ' εἰ μὲν δώσουσι γέρας, μεγάθυμοι Ἀχαιοὶ,
ἄρσαντες κατὰ θυμὸν, ὅπως ἀντάξιον ἔσται.—
εἰ δέ κε μὴ δώωσιν, ἐγὼ δέ κεν αὐτὸς ἔλωμαι
ἢ τεὸν, ἢ Αἴαντος ἰὼν γέρας, ἢ Ὀδυσῆος
ἄξω ἑλῶν. ὁ δέ κεν κεχολώσεται, ὃν κεν ἴκωμαι.”

Carefully show the construction in the 13th to 16th lines of this passage.

Also—Homer, *Iliad* I., 233-239—

ἀλλ' ἔκ τοι ἔρέω, καὶ ἐπὶ μέγαν ὄρκον ὁμοῦμαι·
ναὶ μὰ τὸδε σκῆπτρον, τὸ μὲν οὐποτε φύλλα καὶ ὄξους
φύσει, ἐπειδὴ πρῶτα τομῆν ἐν ὄρεσσι λέλοιπεν,
οὐδ' ἀναθλήσει. περὶ γάρ ῥά ἐ χαλκὸς ἔλεψε
φύλλα τε καὶ φλοιόν· νῦν αὐτέ μιν νῆες Ἀχαιῶν
ἐν παλάμῃς φορέουσι δικασπόλοι, οὔτε θέμιστας
πρὸς Διὸς εἰρύαται· ὁ δέ τοι μέγας ἔσσεται ὄρκος.

What is the exact meaning and construction of ὄρκον in the first line!

Also—Homer, *Iliad* I., 477-488—

ἦμος δ' ἠριγένεια φάνη ῥοδοδάκτυκος Ἥως,
καὶ τότε ἔπειτ' ἀνάγοντο μετὰ στρατὸν εὐρὺν Ἀχαιῶν·
τοῖσιν δ' ἔκμενον οὐδρον ἔει ἐκάεργος Ἀπόλλων.
οἱ δ' ἴστων στήσαντ' ἀνά θ' ἰστία λευκὰ πέτασαν·
ἐν δ' ἄνεμος πρῆσεν μέσον ἰστίον, ἀμφὶ δὲ κύμα
στεῖρην πορφύρεον μεγάλη ἔαχε νηὸς ἰούσης.
ἣ δ' ἔθειεν κατὰ κύμα διαπρήσσουσα κέλευθον,
ἀντάρ ἐπεὶ ῥ' ἔκοντο κατὰ στρατὸν εὐρὺν Ἀχαιῶν,
νῆα μὲν οὔγε μέλαιναν ἐπ' ἠπείροιο ἔρυσσαν
ὑψοῦ ἐπὶ ψαμάθοις, ὑπὸ δ' ἔρματα μακρὰ τάνυσσαν.
αὐτοὶ δ' ἔσκιδναντο κατὰ κλισίας τε νέας τε.

Write notes on ἔκμενον, πορφύρεον, ἔρματα.

What do you mean by the word *Epic* as applied to *dialect*?
Account for the irregularity in the use of words by
Homer as regards quantity, form, and meaning.

Write notes on the meaning of *ἔϊσης*, *αὐτως*.

Translate—Plato, *Crito*, cap. XIII.—

Σκόπει τοίνυν, ὦ Σώκρατες, φαίεν ἂν ἴσως οἱ νόμοι, εἰ
ἡμεῖς ταῦτα ἀληθῆ λέγομεν, ὅτι οὐ δίκαια ἡμᾶς ἐπιχειρεῖς
δρᾶν ἂ νῦν ἐπιχειρεῖς. ἡμεῖς γάρ σε γεννησάντες,
ἐκθρέψαντες, παιδεύσαντες, μεταδόντες ἀπάντων ὧν οἰοί τ'
ἶμεν καλῶν σοὶ καὶ τοῖς ἄλλοις πᾶσι πολίταις, ὅμως
προαγορεύομεν τῷ ἐξουσίαν πεποιηκέναι Ἀθηναίων τῷ
βουλούμεν, ἐπειδὴν δοκιμασθῆ καὶ ἴδῃ τὰ ἐν τῇ πόλει
πράγματα καὶ ἡμᾶς τοὺς νόμους, ᾧ ἂν μὴ ἀρέσκωμεν ἡμεῖς,
ἔξεῖναι λαβόντα τὰ αὐτοῦ

Also—Plato, *Apology*, cap. XXIX.—

καὶ ἄλλαι μηχαναὶ πολλαὶ εἰσιν ἐν ἐκάστοις τοῖς κινδύνοις,
ὥστε διαφεύγειν θάνατον, εἴαν τις τολμᾷ πᾶν ποιεῖν καὶ
λέγειν. ἀλλὰ μὴ οὐ τοῦτ' ἦ χαλεπὸν, ὦ ἄνδρες, θάνατον

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ἐκφυγεῖν, ἀλλὰ πολὺ χαλεπώτερον πονηρίαν θάπτου γὰρ θανάτου θεῖ. καὶ νῦν ἐγὼ μὲν ἄτε βραδὺς ὢν καὶ πρεσβύτης ὑπὸ τοῦ βραδυτέρου ἑάλων, οἱ δ' ἔμοι κατήγοροι ἄτε δεινοὶ καὶ ὀξεῖς ὄντες ὑπὸ τοῦ θάπτονος, τῆς κακίας. καὶ νῦν ἐγὼ μὲν ἄπειμι ὑφ' ἡμῶν θανάτου δίκην ὀφλῶν, οὗτοι δ' ὑπὸ τῆς ἀληθείας ὠφληκότες μοχθηρίαν καὶ ἀδικίαν. καὶ ἐγὼ τε τῷ τιμῆματι ἐμμένω καὶ οὗτοι. ταῦτα μὲν που ἴσως οὕτω καὶ ἔδει σχεῖν, καὶ οἶμαι αὐτὰ μετρίως ἔχειν.

Comment on any difficulties you find in these passages.

Translate into Greek Prose—

My father, Cephalus, was induced by Pericles to come to this country, and he lived here thirty years, and neither we nor he at any time either prosecuted any man at law, or were prosecuted, but we lived so modestly under the popular government, as neither to trespass against others, nor to be wronged by others. But when the Thirty, profligates and false accusers as they were, entered on the government, they alleged that it was requisite to purify the state from the wicked, and that the rest of the citizens should devote themselves to virtue and justice.

HONOUR PAPER.

The Honour Paper in Greek for the First Year was the same as the Pass Paper in Greek for the Second Year.

MATHEMATICS I. (Pass Paper.)

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

I. Find the relation which must exist between a , b , and c , in order that $ax^2 + bx + c$ may be a perfect square.

Find the value of x , which will make the expression $x^4 + 4x^3 + 6x^2 + 2x + 3$ a perfect square.

II. Show that the square root of a rational quantity cannot be partly rational and partly a quadratic surd, and thence that if $x + \sqrt{y} = m + \sqrt{n}$, x must = m and $y = n$.

Find the square root of $2(5 + \sqrt{21})$.

- III. If A varies as B when C is constant, and A varies as C when B is constant, prove that A will vary as the product BC when both B and C vary.

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A certain wire is stretched with a weight of 50 lbs. between two points 3 ft. apart, and set into transverse vibration with a violin bow; it is found to make 256 vibrations per second. Now it is known that the number of vibrations made per second by such a wire varies inversely as the length of the vibrating portion of the string, and directly as the square root of the stretching weight. With what force must it be stretched between two points 4 ft. apart, in order to make 384 vibrations per second?

- IV. Find the number of permutations of n things taken r at a time.

Eighty balls are placed in a drawer, sixty of them being white, and the rest black. In how many ways can four balls be chosen out of these (1) to be all white, (2) three white and one black, (3) two white and two black?

- V. Solve the following equations:—

$$(i.) x^2 - 3x - \sqrt{12x^2 - 36x + 24} + 2 = 0.$$

$$(ii.) \sqrt{x^2 + 8} + \sqrt{x^2 - 5} = x.$$

$$(iii.) (x + y)(x + 2y) = 15,$$

$$(x + y)^2 + (x + 2y)^2 = 34.$$

- VI. Sum the following series:—

$$(i.) a + ab + ab^2 + ab^3 + \dots \text{ to } n \text{ terms.}$$

$$(ii.) 2 + x, 4 + 2x, 8 + 3x, 16 + 4x, \text{ etc., to } n \text{ terms.}$$

The first series is to be summed without the assumption of summation formulæ.

- VII. Show that the Trigonometrical ratios are always the same for the same angle.

Find geometrically $\sin 60^\circ$, $\cos 45^\circ$, $\tan 90^\circ$.

- VIII. Trace the changes in the value of $\sin \theta$ as θ proceeds from 0° to 360° , and prove that

$$\sin \theta = -\sin (360^\circ - \theta).$$

- IX. Prove that—

$$\frac{\cos^2 9A - \cos^2 2A}{\cos^2 7A - \cos^2 4A} = \frac{\sin 7A}{\sin 3A}.$$

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MATHEMATICS II. (Pass Paper).
GEOMETRY AND TRIGONOMETRY,

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. In obtuse angled triangles, the square on the side opposite the obtuse angle is equal to the sum of the squares on the other two sides increased by twice the rectangle contained by either of those sides and the projection on it of the other side.

ABC is a right-angled triangle, A being the right angle. Squares $BDEC$, $CKHA$, $AGFB$ are described on the sides. Show that $DF^2 + EK^2 = 5BC^2$.

- II. If a straight line be a tangent to a circle, and from the point of contact a chord be drawn, the angles which the chord makes with the tangent shall be equal to the angles in the alternate segments of the circle.

If two circles touch internally or externally, and two straight lines terminated by the circles be drawn through the point of contact, the chords joining their extremities are parallel.

- III. Triangles which have one angle of the one equal to one angle of the other, and the sides about the equal angles reciprocally proportional, are equal.

Will this proposition be true if the angles are not equal but supplementary?

In the side AB of the triangle ABC find a point D such that if DE be drawn parallel to BC to meet AC in E , and if DC be joined, the triangle DCB shall be equal in area to the triangle ADE .

- IV. If the interior vertical angle of a triangle be bisected by a straight line which cuts the base, the rectangle contained by the sides of the triangle shall be equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle.

- V. Any two of the angles which form a trihedral angle are greater than the third.

If three planes be drawn so that each passes through one edge of a trihedral angle and through the bisector of the opposite face, they will have a common line of intersection.

- VI. Express the cosine of an angle of a triangle in terms of the sides.

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With the aid of this formula, being given that the lengths of two sides of a triangle are 4 feet and 2 feet respectively and the angle opposite to the 4 feet side is 60° , find the third side and the cosines of the remaining angles.

Why is not this method more generally adopted in the solution of triangles?

- VII. Given $a=45$, $b=58$, $c=65$: find B .

$\log 2 = \cdot 3010300$, $\log 7 = \cdot 8450980$, $\log 19 = 1\cdot 2787536$
 $L \tan 30^\circ 13' = 9\cdot 7652239$, difference for $1' = 2904$.

- VIII. If $\tan \frac{a}{2} = \tan^2 \frac{\beta}{2}$, and $\tan \beta = 2 \tan \phi$,

show that $2\phi = a + \beta$.

HONOUR PAPERS.

The Honour Papers in Pure and Applied Mathematics for the First Year were the same as the Pass Papers in Pure and Applied Mathematics for the Second Year.

ELEMENTARY PHYSICS I. (Pass Paper).

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

- I. State the proposition known as the parallelogram of forces, and describe any method of proving it experimentally.
A weight of 3 lbs. is held up by two strings of equal length attached to two nails in the same horizontal line, each string making an angle of 60° with the vertical. Find the tension along each string.
- II. A man wishes to find the weight of a long uniform piece of timber, but he only has one weight. How can he weigh the beam? Illustrate your method with a numerical example.
- III. Explain the meaning of the term "centre of gravity." A hollow uniform spherical shell is weighted with a heavy

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piece of lead at one point. Show that the sphere will now only rest on a horizontal plane in either one of two positions; and distinguish which of these is stable and which unstable. If the piece of lead weighs three times as much as the rest of the sphere, find the centre of gravity of the whole.

- IV. Describe the method by which you would proceed to determine the coefficient of friction between two different samples of planed wood.
- V. The lengths of two simple pendulums are in the proportion of 103 to 123, and the shorter of the two makes 21 vibrations per minute. How many vibrations per minute does the other make?
How would the time of vibration of a pendulum, which beats seconds at the sea level, be affected by carrying it to the top of a high mountain?
- VI. Explain how you would proceed to find the specific gravity of olive oil.
- VII. How would you prove that the weight of liquid displaced by a floating body is equal to the weight of the body?
- VIII. A glass beaker, of uniform diameter, 6 cms., is partly filled with water; a cylindrical cork 2 cms. in diameter, 3 grams in weight, and specific gravity $\cdot 3$ is then placed upright in the water. Find by how much the pressure on the base is increased, and by how much the level of the liquid is raised. If the beaker were completely full of water, would the pressure on the base be increased or not?
- IX. Explain Boyle's Law.
A tank having a capacity of 64 cub. ft. lies mouth downwards in water, the mouth being at a depth of 30 ft. below the surface. If the height of the barometer be 29.8 inches, and the specific gravity of mercury 13.6, how many cubic feet of air at atmospheric pressure will be required to fill the tank?
- X. A wide glass tube open at both ends is gradually lowered, always in a vertical position, into a vessel of water, and a vibrating tuning-fork is held at the upper end. In one position of the tube the sound emitted by the tuning-fork is apparently very much increased, but if the tube be further lowered, the intensity of the sound is diminished again. Explain this, and give other illustrations of the same phenomenon.

ELEMENTARY PHYSICS II. (Pass Paper).

PROFESSOR BRAGG, M.A.

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Time—Three hours.

I. What is 'induced magnetism?' Describe an experiment to show its existence. Also, in the case of magnetism induced by, say, a North Pole, what will be the nature of the induced magnetism, and how would you arrange an experiment to prove the truth of your statement?

II. Describe the gold leaf electroscope, and explain in detail what happens when (1) a charged body is brought near it without touching, (2) the plate is put in communication with the earth, (3) the communication between plate and earth having been interrupted the charged body is taken away again.

How can an electroscope be made to test the *sign* of the charge of a body?

III. What is an electrical condenser? Explain what is meant by its capacity.

IV. What are the units of resistance, electromotive force, and current? What relation is there between them?

The internal resistance of a cell is known to be 5. Three such cells are joined in series with an external resistance 10: this external resistance includes that of a galvanometer which shows the strength of the current to be .125. Find the E.M.F. of a cell.

V. Describe and explain the action of the ordinary electric bell.

VI. Draw a rod of iron surrounded by a few turns of wire; suppose a current to run through the wire, and indicate its direction by arrows. Mark on the diagram the N. and S. ends of the electromagnet you have drawn, and state the rule which guides you in doing this.

VII. What is the latent heat of fusion of a substance? How would you find it experimentally?

It is found that 63.2 grammes of copper at 50°C will just melt 3.8 grammes of ice. If the latent heat of fusion of ice be 80 find the specific heat of copper.

VIII. Describe the chief ways in which heat is transferred from one body to another, and give examples of each.

Give examples of good and bad conductors of heat,

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with any explanation you have to give of their differing capabilities in this respect.

- IX. Explain why a liquid boils at a lower temperature on top of a mountain than it does at the sea-level.
- X. How does the number of vibrations made by the air in a tube depend on its length and on the condition of its ends?

ENGLISH LANGUAGE AND LITERATURE.

(Pass Paper.)

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Name the three groups in which the Teutonic languages may be arranged; specify the group with which English is most closely connected; and enumerate the other languages comprising that special group.
- II. Exemplify dialectic growth and phonetic decay in English.
- III. State the chief grammatical differences between the oldest English and the English of the present day.
- IV. Give instances of the intrusion of the following letters into English words:—
b, p, d, s, z, g, l, r.
- V. Classify strong verbs in English.
- VI. Explain the following archaisms in Chaucer's *Prologue*:—
Ferne halwes, gepoun, wastel breed, pulled hen, swynk, for-pyned, farsud, yeddinges, chevysaunce, anlas, gipser, gattothud, covyne, pilwebeer.
- VII. Quote or describe passages in the *Prologue* illustrative of Chaucer's humour.
- VIII. State shortly, with references to passages in Shakespeare's play, your idea of the character of Lady Macbeth.
- IX. What is the impression of Tennyson's views concerning a spirit-world, which you have received from his *In Memoriam*?
- X. Quote or describe passages from *In Memoriam*, which you deem especially beautiful.

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LATIN. (Pass Paper).

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—

Haec ego dum stulte meditor, quae vestra libido est,
Esse peregrino captus amore potes.
Forsitan et narres, quam sit tibi rustica coniux,
Quae tantum lanas non sinat esse rudes.
Fallar, et hoc crimen tenues vanescat in auras,
Neve, revertendi liber, abesse velis !

Sed neque fers tecum, nec, quae mihi, perfide, iactas,
Presserunt humeros sacra paterque tuos.

Omnia mentiris : nec enim tua fallere lingua

Incipit a nobis, primaque plectar ego.

Si quaeras, ubi sit formosi mater Iuli,

Occidit, a duro sola relicta viro.

Haec mihi narraras : at me movere : merentem

Ure : minor culpa poena futura mea est.

Nec mihi mens dubia est, quin te tua numina damnent :

Per mare, per terras septima iactat hiems.

Is there any difficulty in this passage with regard to the readings? Say what you know about the textual alterations.

Non equidem miror, si stat victoria tecum,

Strataque Cretaeam belua textit humum.

Non poterant figi praecordia ferrea cornu :

Ut te non tegeres, pectore tutus eras.

Illic tu silices, illic adamantina tulisti :

Illic qui silices, Thesaea, vincat, habes.

Crudeles somni, quid me tenuistis inertem ?

Aut semel aeterna nocte premenda fui.

Aucupor in lecto mendaces caelibe somnos.

Dum careo veris, gaudia falsa iuvant.

Sed tua cur nobis pallens occurrit imago ?

Cur venit, a verbis muta, querella latens ?

Excitior somno, simulacraque noctis adoro :

Nulla caret fumo Thessalis ara meo.

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Translate—

Bis et vicies milies sestertium donationibus Nero effuderat. Appellari singulos jussit, decuma parte liberalitatis apud quemque eorum relicta. At illis vix decumae super portiones erant, isdem erga aliena sumptibus quibus sua prodegerant, cum rapacissimo cuique ac perditissimo non agri aut fenus, sed sola instrumenta vitiorum manerent. Exactioni triginta equites Romani praepositi, novum officii genus et ambitu ac numero onerosum. Ubique hasta et sector, et inquieta urbs actionibus. Ac tamen grande gaudium, quod tam pauperes forent quibus donasset Nero quam quibus abstulisset. Exauctorati per eos dies tribuni, e praetorio Antonius Taurus et Antonius Naso, ex urbanis cohortibus Aemilius Pacensis, e vigiliis Julius Fronto. Nec remedium in ceteros fuit, sed metus initium, tamquam per artem et formidinem singuli pellerentur omnibus suspectis.

Write notes on the words ambitus, sector, exauctorati, bis et vicies millies sestertium. Give an account of the Roman method of counting money.

Translate—

Plus praedae ac sanguinis Caecina hausit. Inritaverant turbidum ingenium Helvetii, Gallica gens, olim armis virisque, mox memoria nominis clara, de caede Galbae ignari et Vitellii imperium abnuentes. Initium bello fuit avarita ac festinatio unetvicesimae legionis. Rapuerant pecuniam missam in stipendium castelli, quod olim Helvetii, suis militibus ac stipendiio tuebantur. Aegre id possi Helvetii interceptis epistolis quae nomine Germanici exercitus ad Pannonicas legiones ferebantur, centurionem et quosdam militum in custodia retinebant. Caecina belli avidus proximam quamque culpam, antequam paeniteret, ultum ibat. Mota prope castra, vastati agri, direptus longa pace in modum municipii exstructus locus, amoeno salubrium aquarum usu frequens. Missi ad Raetica auxilia nuntii, ut versos in legionem Helvetios a tergo adgrederentur.

Otho, quamquam turbidis rebus et diversis militum animis, cum optimus quisque remedium praesentis licentiae posceret, volgus et plures seditionibus et ambitioso imperio laeti, per turbas et raptus facilis ad civile bellum impellerentur; simul reputans non posse principatum scelere quaesitum subita modestia et prisca gravi-

tate retineri, sed discrimine urbis et periculo senatus anxius, postremo ita disseruit:—'Neque ut affectus vestros in amorem mei accenderem, commilitones, neque ut animum ad virtutem cohortarer, (utraque enim egregie supersunt,) sed veni postulaturus a vobis temperamentum vestrae fortitudinis et erga me modum caritatis. Tumultus proximi initium non cupiditate vel odio, quae multos exercitus in discordiam egere, ac ne detrectatione quidem aut formidine periculorum: nimia pietas vestra acrius quam considerate excitavit. Nam saepe honestas rerum causas, ni iudicium adhibeas, perniciosi exitus consequuntur.

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Give a translation and explanation when required of the following—flagito, pandere sinus, tota mole belli, aquila, speculator, vacatio.

Give a list of the Roman Emperors down to the date of Nero. Show the family connections of each with the Caesars.

Translate into Latin prose—

A few days after the first of January letters reached the palace announcing a mutiny of the troops of Upper Germania. They demanded another emperor in the place of Galba, but left the choice to the senate and the people. Galba had already contemplated adopting an associate in the empire, and had discussed the matter with the most intimate of his friends; for with the indecision of old age, or possibly from his natural character, he rarely acted on his own counsels, and was more commonly an instrument in the hands of others.

HONOUR PAPER.

The Honour Paper in Latin for the Second Year was the same as the Pass Paper in Latin for the Third Year.

GREEK (Pass Paper.)

PROFESSOR KELLY, M.A.

Time—Three hours.

DEMOSTHENES, MEIDIAS, AND SOPHOCLES, AJAX.

Translate—Demosthenes, Meidias, § 541—

Ὁ τοῖνυν πεποιήκε κακὸν ὃ ἄνδρες Ἀθηναῖοι, περὶ τῆς

δίκης, ἀκούσατε, καὶ θεωρεῖτε ἐφ' ἑκάστου τὴν ὕβριν καὶ τὴν ὑπερηφανίαν αὐτοῦ. τῆς γὰρ δίκης, ταύτης λέγω ἢς ἔλθον αὐτὸν, γίγνεται μοι διαιτητῆς Στράτων Φαληρεὺς ἄνθρωπος πένης μὲν τις καὶ ἀπράγμων, ἄλλως δ' οὐ πονηρὸς, ἀλλὰ καὶ πάνυ χρηστός· ὅπερ τὸν ταλαίπωρον οὐκ ὀρθῶς οὐδὲ δικαίως, ἀλλὰ καὶ πάνυ αἰσχρῶς ἀπολλεκεν. οὗτος διαιτῶν ἡμῖν ὁ Στράτων, ἐπειδὴ ποθ' ἤκεν ἢ κμρία, πάντα δ' ἤδη διεξεληλύθει τὰκ τῶν νόμων ὑπωμοσῖαι καὶ παραγραφαί, καὶ οὐδὲν ἔτ' ἦν ὑπόλοιπον, τὸ μὲν πρῶτον ἐπωχεῖν εἰδείτό μου τὴν δίαιταν, ἔπειτα εἰς τὴν ὑστεραίαν ἀναβαλέσθαι· τὸ τελευταῖον δ', ὡς οὐτ' ἐγὼ συνεχάρων οὐθ' οὗτος ἀπήντα, τῆς δ' ὥρας ἐγίγνετ' ὄψε, κατεύηθησεν. ἤδη δ' ἐσπέρας οὔσης καὶ σκότους ἔρχεται Μειδίας οὔτος· πρὸς τὸ τῶν ἀρχόντων οἴκημα, καὶ καταλαμβάνει τοὺς ἄρχοντας ἐξιόντας καὶ τὸν Στράτωνα ἀπίοντ' ἤδη, τὴν ἔρημον δεδωκότα, ὡς ἐγὼ τῶν παραγενομένων τινὸς ἐπυθανόμην. τὸ μὲν οὖν πρῶτον οἶός τ' ἦν πείθειν αὐτὸν ἢν καταδειχθῆκε, ταύτην ἀποδειχτημένην ἀποφέρειν, καὶ τοὺς ἄρχοντας μεταγάφειν καὶ πεντήκοντα δραχμὰς αὐτοῖς εἶδου. ὡς δ' ἔδυσχέρανον οὗτοι τὸ πρᾶγμα καὶ οὐδετέρους ἐπειθεν, ἀπειλήσας καὶ διαλοιδορηθεὶς ἀπελθὼν τί ποιεῖς; καὶ θεάσασθε τὴν κακοήθειαν. τὴν μὲν δίαιταν ἀντιλαχὼν οὐκ ὤμοσεν ἀλλ' εἴασε καθ' ἑαυτοῦ κυρίαν γενέσθαι, καὶ ἀνώμοτος ἀπηνέχθη· βουλόμενος δὲ τὸ μέλλον λαθεῖν, φυλάξας τὴν τελευταίαν ἡμέραν τῶν διαιτητῶν, τὴν τοῦ θαργηλιώνος ἢ τοῦ σκιροφοριώνος γιγνομένην, εἰς ἣν ὁ μὲν ἦλθε τῶν διαιτητῶν, ὁ δ' οὐκ ἦλθε, πείσας τὸν πρυτανεύοντα δοῦναι τὴν ψήφον παρὰ πάντας τοὺς νόμους, κλητῆρα οὐδ' ὄντιν-οῦν ἐπιγραφάμενος, κατηγορῶν ἔρημον, οὐδενὸς παρόντος, ἐκβάλλει καὶ ἀτιμοῖ τὸν διαιτητῆν.

Write notes on the words διαιτητῆς, ἡ κυρία, ὑπωμοσῖαι, παραγραφαί, κλητῆρα.

Also—Demosthenes, Meidias, § 565—

ἀλλὰ μὴν τί ἄλλο; τραγωδοῖς κεχορήγηκέ ποθ' οὗτος, ἐγὼ δὲ αὐληταῖς ἀνδράσι. καὶ ὅτι τοῦτο τὸ ἀνάλωμα ἐκείνης τῆς δαπάνης πλέον ἐστὶ πολλῶ οὐδεὶς ἀγνοεῖ δήπου. κἀγὼ μὲν ἐθελοντῆς οὖν οὗτος δὲ καταστάς ἐξ ἀντιδόσεως τότε, οὐ χάριν οὐδεμίαν αὐτῷ δήπου δικαίως ἂν τις ἔχοι. τί ἔτι; εἰστικάκα τὴν φυλὴν ἐγὼ καὶ Παναθηναίοις κεχορήγηκα, οὗτος δ' οὐδέτερα. ἡγεμῶν συμμορίας ὑμῖν ἐγενόμην ἐγὼ ἔτη δέκα, ἴσον Φορμίωνι καὶ Λυσιθείδῃ καὶ Καλλαίσχρῳ καὶ τοῖς πλουσιωτάτοις, εἰσφέρων οὐκ ἀπὸ ὑπαρχοῦσῆς

οὐσίας (ὑπὸ γὰρ τῶν ἐπιτρόπων ἀπεστερήμην), ἀλλ' ἀπὸ τῆς δόξης ὣν ὁ πατήρ μοι κατέλιπε καὶ ὦν δίκαιον ἴγ' με δοκιμασθέντα κομίσσοσθαι.

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Translate—Sophocles, Ajax, v. 172-181—

ἦ ῥά σε Ταυροπόλα Διὸς Ἄρτεμις,
ὦ μεγάλα φάτις, ὦ
μᾶτερ αἰσχύνας ἐμᾶς,
ᾤρμασε πανδάμους ἐπὶ βούς ἀγελαίας,
ἦ ποῦ τινος νίκας ἀκάρπτου χάριν,
ἦ ῥα κλυτῶν ἐνάρων
ψευσθεῖσ', ἀδώροις εἴτ' ἐλαφηβολαίαις ;
ἦ χαλκοθώραξ ἦ τιν' Ἐυνάλιος
μομφᾶν ἔχων ξυνοῦ δορὸς ἐννηχίοις
μαχαναῖς ἐτίσατο λῶβαν ;

Sophocles, Ajax, v. 430-444—

αἰαῖ· τίς ἄν ποτ' ᾤεθ' ὦδ' ἐπώνυμον
τοῦμόν ξυνοίσειν ὄνομα τοῖς ἐμοῖς κακοῖς ;
νῦν γὰρ πάρεσσι καὶ δις αἰάξειν ἐμοὶ
καὶ τρίς· τοιοῦτοις γὰρ κακοῖς ἐντυγχανῶ·
ὅτου πατήρ μὲν τῆσδ' ἀπ' Ἰδαίας χθονὸς
τὰ πρῶτα καλλιστέλ' ἀριστεύσας στρατοῦ
πρὸς οἶκον ἦλθε πᾶσαν εὐκλειαν φέρον·
ἐγὼ δ' ὁ κείνου παῖς, τὸν αὐτὸν ἐς τόπον
Τροίας ἐπελθὼν οὐκ ἐλάσσοι σθένει,
οὐδ' ἔργα μείω χειρὸς ἀρκέσας ἐμῆς,
ἄτιμοι Ἀργείοισιν ὦδ' ἀπόλλυμαι,
καίτοι τοσοῦτόν γ' ἐξεπίστασθαι δοκῶ,
εἰ ζῶν Ἀχιλλεὺς τῶν ὄπλων τῶν ὦν πέρι
κρίνειν ἐμελλε κράτος ἀριστείας τινί,
οὐκ ἄν τις αἴτ' ἐμαρψεν ἄλλος ἀντ' ἐμοῦ.

Sophocles, Ajax, v. 574-582—

ἀλλ', αὐτό μοι σὺ, παῖ, λαβὼν ἐπώνυμον,
Εὐρύσακες, ὄσχε διὰ πολυρράφου στρέφω
πύρπακος ἐπτάβοιον ἄρρηκτον σάκος·
τὰ δ' ἄλλα τεύχη κοῖν' ἐμοὶ τεθάψεται.
ἀλλ' ὡς τάχος τὸν παῖδα τόνδ' ἦδη δέχου,
καὶ δῶμα πάκτου, μηδ' ἐπισκῆνους γόους
δάκρυε, κάρτα τοι φιλοκτίστον γυνή·
πύκαζε θᾶσσον. οὐ πρὸς ἰατροῦ σοφοῦ
θρηνεῖν ἐπὶ δᾶς πρὸς τομῶντι πῆματι.

Sophocles, Ajax, v. 634-665—

δοῦποι καὶ πολιᾶς ἄμυγμα χαίτας,
κρείστων παρ' Αἰδα κεύθων ὁ νοσῶν μάταν.

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ὄς ἐκ πατρίδας ἤκων γενεᾶς ἀριστος
πολυπόνων Ἀχαιῶν,
οὐκέτι συντρόφοις
ὀργαῖς ἐμπεδος, ἀλλ' ἐκτὸς ὀμιλεῖ.
ὦ τλάμων πάτερ, οἶαν σε μένει τυθέσθαι
παιδὸς δύσφορον ἄταν,
ἂν οὔπω τις ἔθρεψεν
αἰὼν Αἰακιδᾶν ἄτερθε τοῦδε.
ἅπανθ' ὁ μακρὸς κἀναριθμητος χρόνος
φύει τ' ἄδηλα καὶ φανέντα κρύπτεται·
κοῦκ ἔστ' ἀελπτον οὐδὲν, ἀλλ' ἀλίσκεται
χῶ δεινὸς ὄρκος καὶ περισκελεῖς φρένες.
κἀγὼ γάρ, ὅς τὰ δειν' ἐκαρτέρον τότε,
βαφῆ σίδηρος ὡς ἐθελόνθην στόμα
πρὸς τῆσδε τῆς γυναικός· οἰκτεῖρω δέ νιν
χήραν παρ' ἐχθροῖς παιδὰ τ' ὄρφανὸν λιπεῖν.
ἀλλ' εἰμι πρὸς τε λοντρά καὶ παρακτίους
λειμώνας, ὡς ἂν λύμαθ' ἀγνίσας ἐμὰ
μῆνιν βαρεῖαν ἐξαλύξωμαι θεᾶς·
μολῶν τε χώρον ἔνθ' ἂν ἀστιβῆ κίχῳ
κρύψω τὸδ' ἔγχος τοῦμόν, ἔχθιστον βελῶν,
γαίας ὀρίξας ἔνθα μή τις ὄψεται·
ἀλλ' αὐτὸ νινξ' Ἀιδῆς τε σωζόντων κάτω.
ἐγὼ γὰρ ἐξ οὗ χειρὶ τοῦτ' ἐδεξάμην
παρ' Ἑκτορος δῶρημα δυσμενεστάτου,
οὔπω τι κεδνὸν ἔσχον Ἀργείων παρα.
ἀλλ' ἔδτ' ἀληθῆς ἢ βροτῶν παροιμία,
ἐχθρῶν ἄδωρα δῶρα κοῦκ ὀνήσιμα.

Sophocles, Ajax, v. 1,150-1,150—

ἐγὼ δέ γ' ἀνδρ' ὄπωπα μωρίας πλέων,
ὅς ἐν κακοῖς ὑβριξε τοῖσι τῶν πέλας.
κᾶτ' αὐτὸν εἰσιδὼν τις ἐμφερῆς ἐμοὶ
ὀργῆν θ' ὁμοιος εἶπε τοιοῦτον λόγον,
ἄνθρωπε, μὴ δρᾶ τοὺς τεθνηκότας κακῶς·
εἰ γὰρ ποιήσεις, ἴσθι πημανούμενος.
τοιαῦτ' ἀνολβον ἀνδρ' ἐνουθέτει παρών.
ὄρῳ δέ τοί νιν, κᾶστιν, ὡς ἐμοὶ δοκεῖ,
οὐδεὶς ποτ' ἄλλος ἢ σὺ. μὴν ἠνιξάμην;

Write notes on any noticeable words, phrases, or constructions occurring in the above passages.

Translate into Greek Prose—

Come then, let us look at his remarks also concerning Solon. He said that there was a statue erected to

Solon, a standing proof of the modest demeanour of the popular speakers of those days, inasmuch as he was represented with his hand wrapt up within the folds of his mantle, taking occasion thereby to censure and abuse the headlong vehemence of Timarchus. And yet the Salaminians tell us that this statue has not yet been erected fifty years, and, at the same time, from Solon's days up to the present moment is more than two hundred and forty years, so that not only the artist who modelled this figure was not himself a contemporary of his, but neither was his grandfather.

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HONOUR PAPER.

The Honour Paper in Greek for the Second Year was the same as the Pass Paper in Greek for the Third Year.

PURE MATHEMATICS.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Show how to expand e^x in a series of ascending powers of x , and prove that the expansion is a convergent one.

Show that

$$\frac{(1-e)^2}{2} = \frac{1}{12} + \frac{3}{13} + \frac{7}{14} + \frac{15}{15} + \dots$$

- II. State (without proving) the principal properties of the convergents to the value of a continued fraction.

Prove that of the numerators and denominators of two consecutive convergents two at least must be odd and one at least even.

- III. What is the scale of relation of a recurring series?

Find the scale of relation of the series—

(i.) $1 + 5x - 7x^2 + 29x^3 - \dots$

(ii.) $1 - 2x^3 - 6x^5 + 4x^6 - \dots$

the latter having a scale of relation involving the co-efficient of four consecutive powers of x . Sum the latter series to infinity, and find the co-efficient of x^n .

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IV. Show from first principles that a number can only be resolved into prime factors in one way.

Find the highest power of 7 contained in 189.

V. An examiner has thirty papers to look over numbered from 1 to 30. Find the probabilities—

(i.) That if he picks them up at random one by one he may pick them up in their proper numerical order, beginning at one and ending at 30.

(ii.) That if he picks them up in three successive handfuls of ten, the first handful may contain those numbered 1 to 10 (but not necessarily arranged in any particular order amongst themselves), the second those from 11 to 20, the third those from 21 to 30.

VI. Expand $\cos^n \theta$ in a series of cosines of multiples of θ , and hence write the value of $\cos^5 \theta$ in such a series.

VII. Show that

$$\begin{aligned} \sin a \sin \theta + \frac{\sin 2a \sin 2\theta}{2} + \frac{\sin 3a \sin 3\theta}{3} + \dots \\ = \frac{1}{2} \log \left(\sin \frac{\theta + a}{2} \operatorname{cosec} \frac{\theta - a}{2} \right) \end{aligned}$$

And that

$$\cos \frac{\pi}{3} + \frac{1}{2} \cos \frac{2\pi}{3} + \frac{1}{3} \cos \frac{3\pi}{3} + \dots \text{to infinity} = 0.$$

VIII. Resolve $x^n - 1$ into factors, n being odd.

Hence find the three cube roots of 1, and show that they are of the form $1, a, a^2$.

Hence show that

$$x^2 - xy + y^2 = (ax + a^2y)(a^2x + ay).$$

IX. A circle lying within the angle BAC of a triangle touches AB and AC , and cuts BC in D and E . If the length DE be given, show how to determine the radii of the two circles which satisfy these conditions, and prove that no such circle can cut off from BC a chord greater than $2 \sqrt{bc} \sin \frac{1}{2} A$.

APPLIED MATHEMATICS (Pass Paper).

PROFESSOR BRAGG, M.A.

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Time—Three hours.

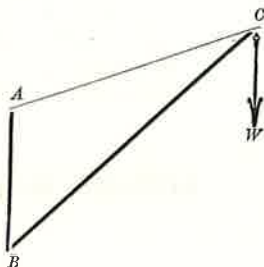
- I. If straight lines OA and OB be drawn from a point O and forces act on a particle at O represented by OA and OB in direction and by $m.OA$, $n.OB$, in magnitude, then the resultant of these forces is $(m+n)OG$ where G is the point between A and B such that $m.AG = n.BG$.

Hence show that if a straight line drawn from the vertex of a triangle divide the base into parts proportional to the adjacent sides then the straight line bisects the vertical angle.

- II. Show that if the moment of two forces in a plane about some point in the plane is zero, then this point lies on the resultant of the two forces.

A square uniform board $ABCD$ of weight W hangs by a string attached to the corner A . To the corner B is attached by a string a weight w . Find the inclination to the vertical of the diagonal AC .

- III. In the accompanying diagram BC is the jib of a crane, AC its tie-rod and W a weight suspended from C . If the weight of the jib be $\frac{1}{2}W$, draw a force diagram showing the relative values of the strains on the different parts of the crane.



- IV. A rectangular sheet of paper $ABCD$ is folded as follows : AB being one of the longer sides, E is taken in it so that $AE = AD$, F in BC so that $BF = BE$, and G in CD so that $CG = BE$. The paper is then folded along the lines DE , EF , and EG in succession so as to form an isosceles right-angled triangle. Find its centre of gravity making allowance for the different thickness of different parts.

- V. A body of weight W rests on a rough plane inclined at an angle α to the horizon. Find the force necessary to just keep it from slipping down the plane, supposing the force to act along the plane.

Also, find the energy wasted in friction if the body be

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dragged up the plane by such a force and then allowed to slip down again.

- VI. Explain what is meant by virtual work, and show that if a particle acted on by any system of forces receive any displacement whatever, the algebraical sum of the work done by the different forces during the displacement is zero when the forces are in equilibrium.

Four uniform rods each of weight W are jointed together so as to form a square. This square is placed in a vertical plane with one corner resting on a smooth table; to the opposite corner is attached a cord which, passing over a pulley vertically over the corner, has a weight attached to the other end. The system is in equilibrium: find the magnitude of the hanging weight.

- VII. A waggon of mass M is drawn up an incline of angle α and length l by a rope, passing over a pulley at the top of the incline, and attached to a cage of mass m which descends into the shaft of a mine. Find the velocity with which the waggon reaches the summit.

- VIII. Prove the formula $s = ut + \frac{1}{2}ft^2$.

A body is projected with velocity u along a rough plane surface whose co-efficient of friction is μ . Find how far it will go: and divide the whole distance into two parts such that they are described in equal times.

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PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. A particle is projected with a given velocity and at a given elevation, and is acted on by the force of gravity. Find the greatest height it will reach and the time of reaching it.

At what elevation must the particle be projected so that the range may be equal to the greatest height?

- II. Show that the time that a particle takes to slide down a chord of a circle drawn from the highest point is the same, no matter in what direction the chord is drawn.

If AB and AC be two chords of a circle equally inclined to the vertical, A being the highest point of the

circle, and if the heavier of two particles slide down AC and drag the lighter up BA by a string running over a smooth pulley at A , the time it will take to do so is independent of the inclination of AB and AC to the vertical.

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- III. What two principles have we to guide us in considering the changes of motion produced by the impact of two smooth elastic spheres? and to what equations do they lead?

If a perfectly elastic ball be dropped from a certain point on to a level surface, and if just as it strikes the surface, a second similar ball be dropped from the same point, show that when they meet they will be travelling with the same velocities, and hence that the motion produced will be periodic and permanent.

- IV. Show that the time of oscillation of a simple pendulum is $2\pi \sqrt{\frac{l}{g}}$, l being its length, g the value of gravity.

- V. The rim of a flywheel has a sectional area of 10 square inches and a mean radius of 2 feet. Taking the specific gravity of iron as 7 and its tenacity as 20,000 lbs. to the square inch, find approximately the rate at which the wheel must be made to revolve in order to burst it.

- VI. Show that the whole pressure of a liquid on a submerged surface is equal to the area of the surface multiplied by the pressure at the centre of gravity of the surface. Hence show how to find the resultant horizontal pressure on any surface.

In a plane vertical side of a vessel containing water is a square flap hinged at the top, opening inwards, and kept shut by the pressure of the water inside: the aperture which it closes is just too big to allow it to pass through. If the flap be one foot square and the top side of it, which is horizontal, be just level with the surface of the water in the vessel, find the force which must be applied externally to the middle point of the flap to make it open inwards.

- VII. In what ways is an air thermometer superior to a mercury thermometer, and in what ways inferior?

An air thermometer is made of a long tube closed at one end, and at this end air is confined by a thread of mercury. The tube is held vertically first with the closed end up, then with the closed end down, and the

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volumes of the confined air in these two positions are noted. If they be v_1 and v_2 prove the temperature is given by $A \frac{v_1 v_2}{v_1 - v_2}$ where A is a constant, and independent of the barometric pressure.

- VIII. Show that the superficial energy per unit of area of a liquid film is equal to the tension per unit of length.

HONOUR PAPERS.

The Honour Papers in Mathematics for the Second Year were the same as the Pass Papers in Mathematics for the Third Year.

LOGIC.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Show how Logic is related to Psychology, and explain what is meant by calling Logic an *a priori* Science. In what sense can Logic be regarded as an Art?
- II. Give examples of Immediate Inference.
- III. Construct concrete syllogisms in the following modes :—
AAA, AOO, OAO, AEE.
- IV. Define and illustrate the Dilemma.
- V. Trace fallacies in Deductive Logic to four sources, and classify the fallacies incident to Induction.
- VI. Explain the difference between Inductive and Deductive Logic, and show that Aristotle's inductive syllogism is not in accordance with his own definition of *ἐπαγωγὴ*.
- VII. By what mental process do men assure themselves of the truth of the Law of Causation?
- VIII. Examine Newton's proof of the existence of Central Force in the sun.
- IX. State and illustrate the method of Difference.
- X. What cautions must be observed in drawing an inference from analogy? Whatly defines analogy as a resemblance of relations. How does this definition differ from Aristotle's view?

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LATIN. (Pass Paper).

D. J. BYARD, B.A.

Time—Three hours.

I. Translate—

(a) Unum accidit imprudentia Milonis incommode, de Sexto Clodio, quem neque hoc tempore neque ab imbecillis accusatoribus mihi placuit accusari: ei tres sententiae deterrimo in consilio fuerunt; itaque hominem populus revocat et retrahatur necesse est, non enim ferunt homines, et quia, cum apud suos diceret, paene damnatus est, vident damnatum. Ea ipsa in re Pompeii offensio nobis obstitit; senatorum enim urna copiose absolvit, equitum adaequavit, tribuni aerarii condemnarunt; sed hoc incommodum consolantur quotidianae damnationes inimicorum, in quibus me perlibente Servius allisus est, ceteri conciduntur C. Cato concionatus est comitia haberi non siturum, si sibi a populo dies agendi essent exempti.

—Cic.: ad Q. Fratrem II., 6.

(b.) At quem virum! non eum, quem tu es solitus promulside conficere: integram famem ad ovum affero, itaque usque ad assum vitulinum opera perducitur. Illa mea quae solebas antea laudare, "O hominem facilem! O hospitem non gravem!" abierunt: nunc omnem nostram de re publica curam, cogitationem de dicenda in senatu sententia, commentationem causarum abjecimus, in Epicuri nos adversarii nostri castra coniecimus, nec tamen ad hanc insolentiam, sed ad illam tuam lautitiam, veterem dico, cum in sumptum habebas, etsi nunquam plura praedia habuisti. Proinde te para: cum homine et edaci tibi res est et qui jam aliquid intelligat, *ὄψιμαθεῖς* autem homines scis quam insolentes sint; dediscendae tibi sunt sportellae et artolagani tui.

—Cic.: Ad Fam. IX., 20.

(c.) Itaque omnes nunc in iis locis Cn. Pompeium sicut aliquem non ex hac urbe missum, sed de caelo delapsum intuentur; nunc denique incipiunt credere, fuisse homines Romanos hac quondam continentia, quod jam nationibus exteris incredibile ac falso memoriae pro-

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ditum videbatur; nunc imperii vestri splendor illis gentibus lucem adferre cepit; nunc intellegunt non sine causa majores suos tum, cum ea temperantia magistratus habebamus, servire populo Romano quam imperare aliis maluisse. Iam vero ita faciles aditus ad eum privatorum, ita liberae querimoniae de aliorum injuriis esse dicuntur, ut is qui dignitate principibus excellit, facilitate infimis par esse videatur. Iam quantum consilio, quantum dicendi gravitate et copia valeat, in quo ipso inest quaedam dignitas imperatoria, vos, Quirites, hoc ipso ex loco saepe cognovistis. Fidem vero ejus quantam inter socios existimari putatis quam hostes omnium generum sanctissimam judicant? Humanitate jam tanta est, ut difficile dictu sit, utrum hostes magis virtutem ejus pugnantes timuerint an mansuetudinem victi dilexerint.

—Cic.: pro Lege Massilia 41, 42, §§

(d) Tollite, O pueri, faces.
Flammeum video venire.
Ite, concinite in modum
 "Io Hymen Hymenæe io,
 Io Hymen Hymenæe."
En tibi domus ut potens
En beata viri tui,
Quae tibi sine serviat,
Io Hymen Hymenæe io,
 Io Hymen Hymenæe
Usque dum tremulum movens
Cana tempus anilitas
Omnia omnibus annuat
 Io Hymen - - -
Transfer omine cum bono
Limen aureolos pedes,
Rasilemque subi forem.
 Io Hymen Hymenæe io,
 Io Hymen Hymenæe.

—Catullus.

(e.) Haec mandata prius constanti mente tenentem
Thesaea ceu pulsae ventorum flamine nubes
Aereum nivei montis liquere cacumen.
At pater, ut summa prospectum ex arce petebat,
Anxia in assiduos absumens lumina fletus,
Cum primum inflati conspexit lintea veli,
Praecipitem sese scopulorum e vertice jecit,
Amissum credeas immiti Thesaea fato,

Sic funesta domus ingressus tecta paterna
 Morte ferox Theseus, qualem Minoidi luctum
 Obtulerat mente immemori talem ipse recepit,
 Quae tum prospectans cedentem maesta carinam
 Multiplices animo volvebat saucia curas.

—Cat. : Peleus and Thetio, ll. 239-251.

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(f.) Furi, villula nostra non ad Austri
 Flatus opposita est neque ad Favoni
 Nec saevi Boreae aut Apheliotae,
 Verum ad milia quindecim et ducentos.
 O ventum horribilem atque pestilentem.

- II. Parse and comment on the following verbal forms—tetuli, juerint, tristi, recepo, ausit, vincier.
- III. Explain the following—praevaricatio, satisdatio, duodecim secures, scriptura, redimere vectigalia.
- IV. Criticise the constructions in the following—
- (1). Ab Atheniensibus locum sepulturae intra urbem ut darent impetrare non potui, quod religione se impediri dicerent.
 - (2). Monendum te est mihi
 - (3). Phaselus ille . . . ait fuisse navium celerrimus.
- V. Give a brief sketch of the political and military career of Pompeius up to the date of the oration Pro Lege Manilia.
- VI. For Latin Prose—

The murder of Henry Stuart, Lord Darnley, is one of those incidents which will remain till the end of time conspicuous on the page of history. In itself, the death of a single boy, prince or king though he might be, had little in it to startle the hard world of the sixteenth century. Had Darnley been stabbed in a scuffle, or helped to death by a dose of arsenic in his bed, the fair fame of the Queen of Scots would have suffered little, and the tongues that dared to mutter would have been easily silenced. But conspiracies in Scotland were never managed with the skilful villany of the Continent. When some conspicuous person was to be removed out of the way, the instruments of the deed were either fanatic religionists, who looked on themselves as the servants of God, or else they had been wrought up to the murder point by some personal passion, which was not contented with the death of its victim, and required the picturesqueness of dramatic revenge.

LATIN. (Honour Paper.)

LUCRETIUS BOOK VI., AND TACITUS ANNALS II.

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—

sic igitur supera nostrum caput esse putandumst
tempestatem altam. neque enim caligine tanta
obruerent terras, nisi inaedificata superne
multa forent multis exempto nubila sole ;
nec tanto possent venientes opprimere imbri,
flumina abundare ut facerent composque natare,
si non extractis foret alte nubibus aether.

Mobilitas autem fit fulminis et gravis ictus,
et celeri ferme percurrunt fulmina lapsu,
nubibus ipsa quod omnino prius incita se vis
colligit et magnum conamen sumit eundi,
inde ubi non potuit nubes capere inpetis auctum,
exprimitur vis atque ideo volat impete miro,
ut validis quae de tormentis missa feruntur.
denique si calidis etiam cunctare lavabris
plenior et laveris, solio ferventis aquai
quam facile in medio fit uti des saepe ruinas !
carbonumque gravis vis atque odor insinuat
quam facile in cerebrum, nisi aquam praecepimus ante !
at cum membra domus percepit fervidior vis,
tum fit odor viri plagae mactabilis instar.
nonne vides etiam terra quoque sulphur in ipsa
gignier et taetro concresecere odore bitumen ;
denique ubi argenti venas aurique secuntur,
terrai penitus scrutantes abdita ferro,
qualis expiret Scaptensula subter odores ?

Fit quoque ut interdum vis haec atque aestus A verni
aera, qui inter avis cumquest terramque locatus,
discutiat, prope uti locus hic linquatur inanis.
cuius ubi e regione loci venere volantes,
claudicat extemplo pinnarum nisus inanis
et conamen utrimque alarum proditur omne,
hic ubi nixari nequeunt insistereque alis,
scilicet in terram delabi pondere cogit
natura, et vacuum prope iam per inane iacentes
dispergunt animas per caulas corporis omnis.
barbigeras oleaster eo iuvat usque capellas,

effluat ambrosiae quasi vero et nectari' linctus ;
 qua nil est homini quod amari' frondeat esca.
 denique amaracinum fugitat sus et timet omne
 ungentum ; nam saetigeris subus acre venenumst,
 quod nos interdum tamquam recreare videtur.
 at contra nobis caenum taeterrima cum sit
 spurcicies, eadem subus haec iucunda videtur,
 insatiabiliter toti ut volvantur ibidem.

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Translate—

Neque in familia et argento quaeque ad usum parentur
 nimium aliquid aut modicum nisi ex fortuna possidentis.
 distinctos senatus et equitum census, non quia diversi
 natura, sed ut, *sicut* locis ordinibus dignationibus antis-
 tent, ita iis quae ad requiem animi aut salubritatem cor-
 porum parentur, nisi forte clarissimo cuique plures curas,
 maiora pericula subeunda, delenimentis curarum et peri-
 culorum carendum esse. facilem ad sensum Gallo sub
 nominibus honestis confessio vitiorum et similitudo audi-
 entium dedit. adiecerat et Tiberius non id tempus
 censurae nec, si quid in moribus laboret, defuturum cor-
 rigendi auctorem.

Nec sane ideo a maioribus concessum est egredi
 aliquando relationem et quod in commune conducat loco
 sententiae proferre, ut privata negotia et res familiares
 nostras hic augeamus, cum invidia senatus et principum,
 sive indulerint largitionem sive abnuerint. non enim
 preces sunt istud, sed efflagitatio, intempestiva quidem et
 inprovisa, cum aliis de rebus convenerint patres, consur-
 gere et numero atque aetate liberum suorum urguere
 modestiam senatus, eandem vim in me transmittere ac
 velut perfringere aerarium, quod si ambitione exhau-
 serimus, per scelera supplendum erit. dedit tibi, Hortale,
 divus Augustus pecuniam, sed non compellatus nec ea
 lege at semper daretur. languescet alioqui industria,
 intendetur socordia, si nullus ex se metus aut spes, et
 securi omnes aliena subsidia expectabunt, sibi ignavi,
 nobis graves.

Neque tamen mitigatus Piso, et vix diei moram per-
 pessus linquit Germanicum praeventique. et postquam
 Suriam ac legiones attigit, largitione, ambitu, infimos
 manipularium invando, cum veteres centuriones, severos
 tribunos demoveret locaque eorum clientibus suis vel
 deterrimo enique attribueret, desidiam in castris, licentiam

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in urbibus, vagum ac lascivientem per agros militem sineret, eo usque corruptionis proventus est, ut sermone vulgi parens legionum haberetur. nec Plancina se intra decora feminis tenebat, sed exercitio equitum, decursibus cohortium interesse, in Agrippinam, in Germanicum contumelias iacere, quibusdam etiam bonorum militum ad mala obsequia promptis, quod haud invito imperatore ea fieri occultus rumor incedebat. nota haec Germanico, sed praeverti ad Armenios instantior cura fuit.

Translate into Latin Prose—

In all situations of difficulty men will be influenced in the part they take, not only by the reason of the case, but by the peculiar turn of their own character. The same ways to safety do not present themselves to all men, nor to the same man in different tempers. There is a courageous wisdom: there is also a false reptile prudence, the result not of caution, but of fear. Under misfortunes it often happens that the nerves of the understanding are so relaxed, the pressing evil of the hour so completely confounds all the faculties, that no future danger can be properly provided for, can be justly estimated, can be so much as fully seen. The eye of the mind is dazzled and vanquished.

GREEK (Pass Paper).

D. J. BYARD, B.A.

Time—Three hours.

I. Translate—

- (a) " *Χρώμεθα γὰρ πολιτείᾳ οὐ ζηλοῦσθαι τοὺς τῶν πέλας νόμους, παράδειγμα δὲ μᾶλλον αὐτοῖ ὄντες τινὲ ἢ μιμούμενοι ἑτέροις. καὶ ὄνομα μὲν, διὰ τὸ μὴ εἰς ὀλίγους ἀλλ' εἰς πλείονας οἰκεῖν, δημοκρατία κέκληται, μέτεστι δὲ κατὰ μὲν τοὺς νόμους πρὸς τὰ ἴδια διάφορα πᾶσι τὸ ἴσον, κατὰ δὲ τὴν ἀξίωσιν, ὡς ἕκαστος ἐν τῇ ἐνδοκιμείᾳ, οὐκ ἀπὸ μέρους τὸ πλεῖον εἰς τὰ κοινὰ ἢ ἀπ' ἀρετῆς προτιμᾶται, οὐδ' αὖ κατὰ πενίαν, ἔχων δὲ τι ἀγαθὸν δράσαι τὴν πόλιν, ἀξιώματος ἀφανείᾳ κεκώλυται. ἐλευθέρως δὲ τά τε πρὸς τὸ κοινὸν πολιτεύομεν καὶ εἰς τὴν πρὸς ἀλλήλους τῶν καθ' ἡμέραν ἐπιτηδευμάτων ὑποψίαν, οὐ δι' ὀργῆς τὸν πέλας, εἰ καθ'*

ἤδονήν τι δρᾶ ἔχοντες, ὄνδῃ ἀξήμιους μὲν λυπηρὰς δὲ τῇ ὄψει ἀχθηδόνας προστιθέμενοι.”

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—Thuc., Book II. 37.

- (b) λεγέτω μὲν οὖν περὶ οὗτου ὡς ἕκαστος γιγνώσκεί καὶ ἱατρὸς καὶ ἰδιώτης, ἀφ' ὅτου εἰκὸς ἵν' γενέσθαι αὐτὸ καὶ τὰς αἰτίας ἄστινας νομίζει τοσαύτης μεταβολῆς ἱκανὸς εἶναι δύναμιν ἐς τὸ μεταστῆσαι σχεῖν· ἐγὼ δὲ οἶόν τε ἐγίγνετο λέξω καὶ ἀφ' ὧν ἂν τις σκοπῶν, εἴ ποτε καὶ αὐθις ἐπιπέσοι, μάλιστα ἂν ἔχοι τι προειδῶς μὴ ἀγνοεῖν, ταῦτα δηλώσω, αὐτὸς τε νοσήσας καὶ αὐτὸς ἰδὼν ἄλλους πᾶσ χοντας.

—Thuc., Book II. 48.

- (c) ἄμα δὲ τῇ χώσει καὶ μηχανῶς προσῆγον τῇ πόλει οἱ Πελοποννήσιοι, μίαν μὲν ἢ τοῦ μεγάλου οἰκοδομήματος κατὰ τὸ χῶμα προσαχθεῖσα ἐπὶ μέγα τε κατέσεισε καὶ τοὺς Πλαττίας ἐφόβησεν, ἄλλας δὲ ἄλλη τοῦ τείχους ἄς βρόχους τε περιβάλλοντες ἀνέκλων οἱ Πλαταιῆς, καὶ δοκοὺς μεγάλας ἀρτήσαντες ἀλίσεισι μακραῖς σιδηραῖς, ἀπὸ τῆς τομῆς ἑκατέρωθεν ἀπὸ κεραιῶν δύο ἐπικεκλιμένων καὶ ὑπερτεινουσῶν ὑπὲρ τοῦ τείχους ἀνεκκίαντες ἐγκαρσίας, ὅποτε προσπεσεῖσθαί πῃ μέλλοι ἢ μηχανῇ, ἀφίσταν τὴν δοκὸν χαλαραῖς ταῖς ἀλίσεισι καὶ οὐ διὰ χειρὸς ἔχοντες, ἢ δὲ ῥύμη ἐμπιπτουσα ἀπεκαύλιζε τὸ προέχον τῆς ἐμβολῆς,

—Thuc., Book II. 76.

- (d) Ἐχθρὰ δέ μοι τοῦ δῶρα, τίω δέ μιν ἐν καρὸς αἰση.
οὐδ' εἰ μοι δεκάκις τε καὶ εἰκοσάκις τόσα δοίη
ὄσσα τέ οἱ νῦν ἔστι, καὶ εἰ ποθεν ἄλλα γένοιτο,
οὐδ' ὄσ' ἐς Ὀρχομενὸν ποτινίσσεται, οὐδ' ὄσα Θήβας
Αἰγυπτίας, ὅθι πλεῖστα δόμοις ἐν κτήματα κείται,
Αἰ θ' ἑκατομυλοὶ εἰσι, δικήσοιο δ' ἂν ἑκάστας
Ἄνῆρες ἐξοιχνεῦσι σὺν ἵπποισιν καὶ ὄχσεσφίν·
οὐδ', εἰ μοι τόσα δοίη ὄσα ψάμαθός τε κόνης τε,
οὐδέ κεν ὡς ἔτι θυμὸν ἐμὸν πείσειε Ἄγαμέμνων,
Πρὶν γ' ἀπὸ πᾶσαν ἐμοὶ δόμεναι θυμάλγέα λῶβην.
κούρην δ' οὐ γαμέω Ἄγαμέμνονος Ἀτρεΐδαο,
οὐδ' εἰ χρυσείη Ἀφροδίτῃ κάλλος ἐρίξοι,
ἔργα δ' Ἀθηναίῃ γλαυκῶπιδι ἰσοφαρίζοι,

—Iliad, IX., 378-390.

- (e) Ἐν δ' ἐτίθει τέμενος βαθυλήϊον. ἔνθα δ' ἔριθοι ἤμων ὀξείας δρεπάνας ἐν χερσὶν ἔχοντες.
δράγματα δ' ἄλλα μετ' ὄγμον ἐπήτριμα πίπτον ἔραξε
ἄλλα δ' ἀμαλλοδετῆρες ἐν ἑλλεθαινοῦσι δέοντο.
τρεῖς δ' ἄρ' ἀμαλλοδετῆρες ἐφέστισαν. αὐτὰρ ὄπισθεν

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παῖδες δραγμαίοντες, ἐν ἀγκαλίδεσσι φέροντες,
ἀσπερχές πάρεχον. Βασιλεὺς δ' ἐν τοῖσι σιωπῇ
σκήπτρον ἔχων ἐστκίηι ἐπ' ὄγμου γηθόσυνος κήρ.
κίηρυκες δ' ἀπάνειθεν ὑπὸ δρυὶ δαῖτα πένοντο,
βοῦν δ' ἱερεύσαντες μέγαλ' ἄμφεπον. αἱ δὲ γυναικες
δεῖπνον ἐριθοισιν λεύκ' ἄλφιτα πολλὰ πάλινον,

Piad, XVIII., 550-560.

II. Translate, with explanatory or critical notes, the following—

- (I.) ὥσπερ καὶ τὰ ἄγη ἐλαύνειν προεῖπον ἕνεκα ἐκείνου
(II.) εἰκὸς δὲ καὶ τὸ κῆδος Πανδίοια ξυνάψασθαι τῆς
θυγατρὸς διὰ τοσοῦτου, μᾶλλον ἢ διὰ πολλῶν
ἡμερῶν ἐς Ἐδρύσας ὁδοῦ.

Give other uses of διὰ.

- (III.) τὸ μὲν οὖν νόσημα, πολλὰ καὶ ἄλλα παραλιπόντι
ἀτοπίας . . . τοιοῦτον ἴν.

Give from your text similar uses of the dative.

III. Give a full account of the following words, with their Attic forms:—*δυσαίατο*, *ἄμμι*, *ἄμμε*, *δάμεν*, *δώη*, *γεγαῶτα*.

IV. State briefly the causes of the Peloponnesian war and the political principles involved. Estimate the strength of the contending parties, giving the principal allies of each.

V. For Greek Prose—

With the return of the heroes from Troy to their own lands, the mystic history of Greece may be said to terminate. For the migration of the Dorians, commonly called the Return of the Heracleids, though mingled with many fabulous circumstances, is to be regarded as a portion of true history. From this time forward the gods cease to appear visibly among men and to mingle in their affairs. The oracle and the soothsayer alone remain to give to events a tinge of the supernatural. The wonderful is now confined to the display of human powers and virtues, to the heroism of an Aristomenes, the self-devotion of a Codrus. To the purely mythic age succeeds one, in which truth struggles against fable and prevails over it.

—C. Thirlwall.

GREEK (Honour Paper).

HOMER, ILIAD, XXII., XXIII., XXIV.; THUCYDIDES VII.

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PROFESSOR KELLY, M.A.

Time—Three hours.

Translate, Homer, Iliad, Book xxii., 122-130—

ἀλλὰ τίη μοι ταῦτα φίλος διελέξατο θυμός ;
μή μιν ἐγὼ μὲν ἴκωμαι ἰών, ὃ δέ μ' οὐκ ἐλέησει
οὐδέ τί μ' αἰδέσεται, κτενέει δέ με γυμνὸν ἔοντα
αὐτῶς ὥστε γυναῖκα, ἐπεὶ κ' ἀπὸ τεύχεα δύω.
οὐ μὲν πως νῦν ἔστιν ὅπδ δρυὸς οὐδ' ἀπὸ πέτρης
τῷ ὀαρίζεμεναι, ἅτε παρθένος ἠΐθεός τε,
παρθένος ἠΐθεός τ' ὀαρίζετον ἀλλήλοισιν.
βέλτερον αὐτ' ἔριδι ζυγελαυνέμεν ὅττι τάχιστα·
εἶδομεν ὀπποτέρῳ κεν Ὀλύμπιος εὖχος ὀρέξῃ.

Homer, Iliad, Book xxiii., 114-126—

οἱ δ' ἴσαν ὕλοτόμους πελέκεας ἐν χερσὶν ἔχοντες
σειράς τ' εὐπλέκτους· πρὸ δ' ἄρ' οὐρῆες κίον αὐτῶν·
πολλὰ δ' ἄναντα κάταντα πάραντά τε δόχημά τ' ἤλθον.
ἀλλ' ὅτε δὴ κνημοὺς προσέβαν πολυπίδακος Ἴδης,
αὐτίκ' ἄρα δρυὸς ὑψικόμους ταναΐκει χαλκῷ
τάμνον ἐπειγόμενοι· ται δὲ μεγάλα κτυπέουσαι
πίπτον. τὰς μὲν ἔπειτα διαπλήσσοντες Ἀχαιοὶ
ἔκδεον ἡμιόνων· ται δὲ χθόνα ποσσὶ δατεῦντο
ἐλδόμεναι πεδίοιο διὰ ῥωπήϊα πυκνά.
πάντες δ' ὕλοτόμοι φιτροὺς φέρον· ὡς γὰρ ἀνώγει
Μηριόνης, θεράπων ἀγαπήνορος Ἰδομενῆος.
καδ' δ' ἄρ' ἐπ' ἀκτῆς βάλλον ἐπιωχερώ, ἐνθ' ἄρ' Ἀχιλλεύς
φράσσατο Πατρόκῳ μέγα ἠρίον ἠδὲ οἱ αὐτῷ.

Homer, Iliad, Book xxiii., 450-468—

πρῶτος δ' Ἰδομενεύς, Κρητῶν ἀγός, ἐφράσαθ' ἵππους·
ἴστο γὰρ ἐκτὸς ἀγώνος ὑπέρτατος ἐν περιωπῇ,
τοιοῦ δ' ἀνευθεν ἔοντος ὀμοκλητήρης ἀκούσας
ἔγνω· φράσσατο δ' ἵππον ὑπὲρπρέπεια προὔχοντα,
ὃς τὸ μὲν ἄλλο τόσον φοῖνιξ ἴν, ἐν δὲ μετώπῳ
λευκὸν σῆμ' ἐτέτυκτο περίτροχον ἥύτε μήνη.
στῆ δ' ὀρθὸς καὶ μῦθον ἐν Ἀργείοισιν ἔειπεν·
ᾧ φίλοι, Ἀργείων ἡγήτορες ἠδέ μέδοντες,
οἷος ἐγὼν ἵππους ἀυγάζομαι ἠὲ καὶ ὑμεῖς ;
ἄλλοι μοι δοκέουσι παροίτεροι ἔμμεναι ἵπποι,
ἄλλος δ' ἠνίοχος ἰνδάλλεται· αἱ δὲ που αὐτοῦ

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ἔβλαβεν ἐν πεδίῳ, αἶ κεισέ γε φέρτεραι ἦσαν.
ἦτοι γὰρ τὰς πρῶτα ἴδον περι τέρμα βαλούσας,
νῦν δ' οὐ πη δύναμαι ἰδέειν.

Homer, Iliad, Book xxiii., 496-605—

Ἦ ῥα, καὶ ἵππον ἄγων μεγαθύμου Νέστορος υἱὸς
ἐν χεῖρεσσι τίθει Μενελάου. τοιοῦ δὲ θυμὸς
ἰάνθη, ὡς εἶ τε περὶ σταχύεσσιν ἐέρση
ληίου ἀλδήσκοντος, ὅτε φρίσσοσιν ἄρουραι·
ὡς ἄρα σοὶ Μενέλαε, μετὰ φρεσὶ θυμὸς ἰάνθη.
καὶ μιν φωνήσας ἔπεα πτερόεντα προσηύδα·

Ἄντιλοχε, νῦν μὲν τοι ἐγὼν ὑποείξομαι αὐτὸς
χωόμενος, ἐπεὶ οὔτι παρήγορος οὐδ' ἀεσίφρων
ἦσθα πάρος· νῦν αὐτὲ νόον νίκησε νεοίη.
δεύτερον αὐτ' ἀλέασθαι ἀμείνονας ἠπεροπεύειν.

Homer, Iliad, Book xxiv., 726-738—

Ἄνερ, ἀπ' αἰῶνος νέος ὦλο, καὶ δέ με χήρην
λείπεις ἐν μεγάροισι· παῖς δ' ἔτι νήπιος αὐτῶς,
ὃν τέκομεν σὺ τ' ἐγὼ τε δυσάμμοροι, οὔδε μιν οἶω
ἔβην ἰξέσθαι· πρὶν γὰρ πόλις ἦδε κατ' ἄκρης
πέρσεται· ἦ γὰρ ὄλωλας ἐπίσκοπος, ὃς τέ μιν αὐτὴν
ρίσκει, ἔχες δ' ἀλόχους κεδνὰς καὶ νήπια τέκνα·
αἶ δὴ τοι τάχα νηυσὶν ὀχῆσονται γλαφυρήσι,
καὶ μὲν ἐγὼ μετὰ τῆσι· σὺ δ' αὖ, τέκος, ἦ ἔμοι αὐτῇ
ἔψαι, ἔνθα κεν ἔργα ἀεικέα ἰργάζοιο,
ἀθλεύων πρὸ ἀνακτος ἀμειλίχων· ἦ τις Ἀχαιῶν
ρίψει χεῖρὸς ἐλὼν ἀπὸ πύργου, λυγρὸν ὄλεθρον,
χωόμενος, ὃ δὴ πον ἀδελφεὸν ἔκτανεν Ἔκτωρ
ἠὲ πατέρ', ἠέ καὶ νιόν, ἐπεὶ μάλα πολλοὶ Ἀχαιῶν
Ἔκτορος ἐν παλάμῃσιν ὁδᾶξ ἔλον ἄσπετον οὔδας.

Translate—Thucydides vii., 36—

τοῦ δ' ἄλλου λιμένος αὐτοὶ κρατήσιν, καὶ ξυμφερομένους
αὐτοὺς ἦν πη βιάζονται, ἐς ὀλίγον τε καὶ πάντας ἐς τὸ
αὐτό, προσπίπτοντας ἀλλήλοις ταραξέσθαι (ὅπερ καὶ
ἔβλαπτε μάλιστα τοὺς Ἀθηναίους ἐν ὑπάσασι ταῖς ναυμα-
χίαις, οὐκ οὔσης αὐτοῖς ἐς πάντα τὸν λιμένα τῆς
ἀνακροῦσεως, ὡσπερ τοῖς Συρακοσίοις)· περιπλεῖσαι δὲ ἐς
τὴν εὐρυχωρίαν, σφῶν ἐχόντων τὴν ἐπίπλευσιν ἀπὸ τοῦ
πελάγους τε καὶ ἀνάκρονσιν, οὐ δυνήσεσθαι αὐτούς, ἄλλως
τε καὶ τοῦ Πλημμυρίου πολεμίου τε αὐτοῖς ἐσομένου καὶ
τοῦ στόματος οὐ μεγάλου ὄντος τοῦ λιμένος·

Thucydides vii., 44—

οἳ τε Ἀθηναῖοι ἐξήτουν τε σφῶς αὐτοὺς καὶ πᾶν τὸ ἐξ
ἐναντίας, καὶ εἰ φίλιον εἶη τῶν ἤδη πάλιν φευγόντων,

πολέμιον ἐνόμιζον, καὶ τοῖς ἐρωτήμασι τοῦ ξυνηθήματος πυκνοῖς χρώμενοι διὰ τὸ μὴ εἶναι ἄλλῃ τῷ γνωρίσει, σφίσι τε αὐτοῖς θόρυβον πολὺν παρέιχον ἅμα πάντες ἐρωτῶντες, καὶ τοῖς πολεμίοις σαφῆς αὐτὸ κατέστησαν· τὸ δ' ἐκείνων οὐχ ὁμοίως ἠπίσταντο, διὰ τὸ κρατοῦντας αὐτοὺς καὶ μὴ δισπασμένους ἦσσαν ἀγνοεῖσθαι, ὥστ' εἰ μὲν ἐντύχηόν τισι κρείσσους ὄντες τῶν πολεμίων, διέφευγον αὐτοὺς ἅτε ἐκείνων ἐπιστάμενοι τὸ ξύνθημα, εἰ δ' αὐτοὶ μὴ ὑποκρίναιτο, διεφθείροντο.

Thucydides vii., 48—

εὖ γὰρ εἶδέναι ὅτι Ἀθηναῖοι σφῶν ταῦτα οὐκ ἀποδέξονται ὥστε μὴ αὐτῶν ψηφισαμένων ἀπελθεῖν. καὶ γὰρ οὐ τοὺς αὐτοὺς ψηφιεῖσθαι τε περὶ σφῶν αὐτῶν καὶ τὰ πράγματα ὥσπερ καὶ αὐτοὶ ὀρῶντας καὶ οὐκ ἄλλων ἐπιτιμῆσει ἀκούσαντας γνώσεσθαι, ἀλλ' ἐξ ὧν ἂν τις εὖ λέγων διαβάλλοι, ἐκ τούτων αὐτοὺς πείσεσθαι.

Thucydides vii., 55—

Γεγεννημένης δὲ τῆς νίκης τοῖς Συρακοσίοις λαμπρᾶς ἦδη καὶ τοῦ ναυτικοῦ (πρότερον μὲν γὰρ ἐφοβοῦντο τὰς μετὰ τοῦ Δημοσθένους ναῦς ἐπελθούσας) οἱ μὲν Ἀθηναῖοι ἐν παντὶ δὴ ἀθυμίας ἦσαν καὶ ὁ παράλογος αὐτοῖς μέγας ἦν, πολὺ δὲ μείζων ἔτι τῆς στρατείας ὁ μετάμελος. πόλει γὰρ ταύταις μόναις ἦδη ὁμοιοτρόποις ἐπελθόντες, δημοκρατουμέναις τε, ὥσπερ καὶ αὐτοὶ, καὶ ναῦς καὶ ἔππους καὶ μεγέθη ἐχοῦσαις, οὐ δυνάμενοι ἐπενεγκεῖν οὔτε ἐκ πολιτείας τι μεταβολῆς τὸ διάφορον αὐτοῖς ὧ προσήγοντο ἂν, οὔτ' ἐκ παρασκευῆς πολλῶν κρείσσους, σφαλλόμενοι δὲ τὰ πλεῖω, τὰ τε πρὸ αὐτῶν ἠπόρουσαν καὶ ἐπειδὴ γε καὶ ταῖς ναυσὶν ἐκρατήθησαν, ὃ οὐκ ἂν ᾤοντο, πολλῶ δὴ μᾶλλον ἔτι.

Translate into Greek Prose—

Zaragoza is not a fortified town: the brick wall which surrounded it was from ten to twelve feet high and three feet thick, and in many places it was interrupted by houses which formed part of the enclosure. The city had no advantages of situation for its defence. It stood in an open plain, which was then covered with olive grounds, and is bounded on either side by high and distant mountains; but it is commanded by some high ground called the Torrero, upon which there was a convent with some smaller buildings. During the night and upon the following day the enemy made an assault upon the city. An hospital, which was now filled with the sick and wounded, took fire and was rapidly consumed.

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ANALYTICAL GEOMETRY (Pass Paper).

A. NEWHAM, B.A.

Time—Three hours.

- I. Find the equation to a straight line in terms of the length of the perpendicular upon it from the origin, and the angle which that perpendicular makes with the axis of x .
Show how the general equation to the straight line may be reduced to this form.
- II. Determine the tangent of the angle between two straight lines whose equations are given.
Determine the equation of the locus of the vertex of a triangle whose base and the difference of whose base angles is given.
- III. Find the polar equation of a circle, the pole being any external point, and deduce Euclid III. 36.
Any straight line is drawn from a given external point, to cut a given circle. Find the locus of the middle point of the chord, cut off from it by the circle.
- IV. Show that the equation of a normal to the parabola
 $y^2 = 4ax$ may be written in the form
 $y = mx - 2am - am^3$
 Normals are drawn to a parabola from any point on the curve; show that the product of the ordinates of the points in which the two which are not normal at the point from which they are drawn meet the curve, is equal to twice the square of the semi latus rectum.
- V. Shew that the locus of the middle points of parallel chords of a conic is a straight line.
Find the equations of a pair of conjugate diameters when the conic is central.
- VI. Find the equation to an hyperbola referred to its asymptotes as axes of coordinates.
A straight line drawn through one of the vertices of an hyperbola and terminated by two straight lines drawn through the other vertex parallel to the asymptotes will be bisected at the other point where it cuts the hyperbola.
- VII. Find the equation to the tangent at any point of the curve
 $y = f(x)$.

Shew that the portion of the tangent at any point to the curve $x^{\frac{2}{3}} + y^{\frac{2}{3}} = a^{\frac{2}{3}}$, intercepted between the axes, is of const nt length.

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- VIII. Find the asymptotes of the curve
 $y^2x - ay^2 = x^3 + ax^2 + b^3$,
 and trace the curve.

MATHEMATIC I. CALCULUS. (Pass Paper.)

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

- I. Deduce the rule for finding the differential coefficient of a quotient from the fundamental conception of a differential coefficient.

Differentiate—

$$\frac{x \log x}{\sqrt{1-x^2}}, \sin \frac{1}{x^2}, \text{ and } x^{\sin x}$$

- II. Prove that

$$\begin{aligned} \phi(x+h) = \phi(x) + h\phi'(x) + \frac{h^2}{2}\phi''(x) + \dots + \frac{h^n}{n}\phi^n(x) \\ + \frac{h^{n+1}}{n+1}\phi^{n+1}(x+\theta h) \end{aligned}$$

Where θ denotes some proper fraction.

- III. If $\phi(x)$ and $\psi(x)$ be functions which both become infinite when $x=a$, prove that

$$\frac{\phi(a)}{\psi(a)} = \frac{\phi'(a)}{\psi'(a)}$$

Find the value of $\frac{\log x}{\cot x}$ when $x=0$.

- IV. If y denote a function of x , show geometrically that those values of x which give y a maximum or minimum value also make $\frac{dy}{dx} = 0$, and that at a maximum value $\frac{d^2y}{dx^2}$ is negative and at a minimum value positive.

A cone has to be constructed on an elliptic base, the minor axis of the ellipse being two-thirds the major

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axis, and the sum of the squares of the semi-major axis and of the height are to be equal to c^2 . Find that value of the major axis which makes the volume of the cone a maximum, and find the corresponding volume.

V. Evaluate the following integrals:—

$$\int \frac{dx}{\sqrt{x^2 + a^2}}, \int \frac{dx}{x^2 + 2x + 2}, \int \frac{dx}{1 + \sin x}$$

VI. What is meant by a "formula of reduction?"

Prove that

$$\int \sec^n x dx = \frac{\sec^{n-2} x \tan x}{n-1} + \frac{n-2}{n-1} \int \sec^{n-2} x dx.$$

and

$$\int_0^{\frac{\pi}{2}} \sin^n x dx = \frac{n-1}{n} \int_0^{\frac{\pi}{2}} \sin^{n-2} x dx.$$

VII. If $\phi(x) = \phi(2a - x)$, show that $\int_0^{2a} \phi(x) dx = 2 \int_0^a \phi(x) dx$, and illustrate it geometrically.

Evaluate $\int_0^{\pi} \sin^5 \theta \cos^2 \theta d\theta$.

VIII. Obtain a formula for finding the area of a plane curve in polar co-ordinates.

Find the area of a loop of the curve

$$r = a \cos 3\theta + b \sin 3\theta.$$

SOLID GEOMETRY (Honour Paper).

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

I. Find the condition that the two lines represented by the equations—

$$\frac{x-a}{l} = \frac{y-b}{m} = \frac{z-c}{n} \quad \text{and} \quad \frac{x-a'}{l'} = \frac{y-b'}{m'} = \frac{z-c'}{n'}$$

may intersect one another.

Three lines whose direction cosines are (l_1, m_1, n_1) , (l_2, m_2, n_2) , and (l_3, m_3, n_3) , meet in one point. Find the

relation which must exist between these direction cosines in order that the three lines may lie in one plane.

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- II. Find the conditions that the general equation of the second degree may represent two planes.

Determine the nature of the surface represented by

$$4x^2 + 2y^2 + 2z^2 - 4xy - 4xz - x - y - z + 3 = 0.$$

- III. A surface is generated by the motion of a straight line intersecting the two straight lines $y = \pm x \tan \alpha$, $z = \pm c$, and the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1, z = 0.$$

Prove that its curve of intersection with the plane $z = h$, is an ellipse whose area is to the area of the guiding ellipse, as $(h^2 - c^2) : c^2$.

- IV. Prove that a conicoid will intersect a co-axial conicoid at right angles, only when it is confocal.

Show that the normals to a system of confocal conicoids are all divided by the principal planes into segments which are in a constant ratio.

- V. Find the area of a plane central section of an ellipsoid.

Show that the section of the conicoid

$$2ax^2 + 2by^2 - 3(a + b)z^2 = 1 \text{ by the plane } x + y + \sqrt{2}z = o. \\ \text{is a rectangular hyperbola.}$$

- VI. Find the equations to the envelope and edge of regression of a series of surfaces whose equations are represented by $\phi(x, y, z, a) = 0$, a being a variable parameter.

A plane moves so that its intercepts (a, b, c) on the axes are connected by the equation $a^n + b^n + c^n = k^n$. Show that the envelope is represented by

$$x^{\frac{n}{n+1}} + y^{\frac{n}{n+1}} + z^{\frac{n}{n+1}} = k^{\frac{n}{n+1}}$$

- VII. A cone is described having for base the section of the conicoid $ax^2 + by^2 + cz^2 = 1$, made by the plane $lx + my + nz = o$, and intersects the conicoid in a second plane perpendicular to the former. Find the locus of the vertex

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VIII. Find the differential equations of the lines of curvature on any surface.

Prove that the principal curvatures on the surface

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$$

are equal and opposite where it is met by the cone

$$\frac{x^2}{a^4} \left(\frac{1}{b^2} - \frac{1}{c^2} \right) + \frac{y^2}{b^4} \left(\frac{1}{a^2} - \frac{1}{c^2} \right) + \frac{z^2}{c^4} \left(\frac{1}{a^2} + \frac{1}{b^2} \right) = 0.$$

DYNAMICS OF A PARTICLE AND HYDRO-MECHANICS (Honour Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. The motion of a point in a plane being given with respect to fixed axes, find expressions for the acceleration relative to axes in the same plane, having the same origin and revolving about this origin with constant velocity.

Find the accelerations, vertical and horizontal (1) of any point in the rim of a wheel rolling along at uniform speed, (2) of any other point not in the rim.

- II. A particle constrained to move in a straight line is acted on by an attraction always directed to a point outside the line, and varying directly as the distance of the particle from that point, determine the motion.

A smooth straight uniform tube is bent at one place, so that the tube makes an obtuse angle, and is then placed with one side of the angle vertical; a chain is placed in the tube, so that the lower end is just at the bend, and the rest of the chain lies in the inclined part of the tube. It is then allowed to slip down. Show that if n be the length at any time of the vertical part of the chain, l the whole length, a the obtuse angle, the velocity at that time is

$$\sqrt{\frac{gx \{ x + (2l - x) \sin a \}}{l}}$$

- III. A particle being acted on by a central attraction, show how to find the polar equation of the path.

Find the necessary law of force in order that the par

ticle may describe a circle, the centre of force being in the circumference.

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- IV. If a particle be projected with velocity V from a point at a distance R from a centre of force attracting inversely as the square of the distance, and in a direction making an angle β with the straight line joining the point of projection to the centre of force, then the particle will proceed to describe a conic with the centre of the force as focus, and if A be the area described in time t $A = \frac{1}{2}ht$ where $h = VR\sin\beta$.

If a projectile be fired vertically upwards at the equator with velocity V , find approximately where it will fall; considering gravity to be the attraction of a centre of force located at the earth's centre, and taking into account the fact of the earth's rotation, but neglecting the resistance of the air.

- V. A particle under no forces is projected in a resisting medium of uniform density of which the resistance varies as the n^{th} power of the velocity: determine the motion.

Investigate the equation of motion of a raindrop, supposing the resistance to be proportional to the square of the velocity and to the area of surface of the drop, and supposing also that the size of the drop is proportional to the distance it has fallen.

- VI. Show how to find the time of a small vertical oscillation of a floating body.

Find the time of oscillation of a cylinder of radius r floating in a fluid of twice its specific gravity contained in a vertical cylinder of radius R .

- VII. If a flexible surface of any form be exposed to the action of a fluid, find the relation between the pressure, principal tensions, and the curvatures in the directions of these tensions, at any point.

STATICS AND ATTRACTIONS (Honour Paper).

A. NEWHAM, B.A.

Time—Three hours.

- I. Any number of forces act on a particle in any directions; find the magnitude and direction of their resultant.

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If n forces act upon a particle at a point O , and are represented in magnitude, direction, and way of action by lines OA, OB, OC, \dots , and G is the centre of gravity of equal particles at A, B, C, \dots , prove that the resultant of the forces is in direction OG , and equal to nOG .

- II. Define a couple, and show that two couples acting on a body in different planes with the same arm can be compounded according to the parallelogram law.

$ABCDEFGH$ is a rectangular parallelepiped, E, F, G, H being the corners opposite to A, B, C, D respectively, and $AB = a, AC = b, AD = c$. Forces each equal to P act on the parallelepiped along the lines $AB, BC, CD, DF, FE, EH, HG, GA$ taken in order; find the resultant couple.

- III. Find the conditions of equilibrium of a system of forces acting on a rigid body in any manner.

Find the condition that the system should reduce to a single resultant, and the equations of its line of action.

- IV. Investigate polar formulæ for the centre of gravity of a plane area.

Find the centres of gravity of the two segments into which a circle is divided by a chord subtending 60° at the centre of the circle.

- V. Prove that if any plane figure revolve through any angle about an axis in its plane which does not intersect it, the volume generated is equal to the area of the figure multiplied by the length of the path of its centre of gravity.

Hence find the volume generated by the revolution of the smaller of the segments mentioned in question 4 about an axis through the centre parallel to its chord.

- VI. State the laws of limiting friction and investigate the conditions of limiting friction of a lever movable about a rough cylindrical fulcrum.

A heavy uniform beam rests with one end against a rough horizontal and the other end against an equally rough vertical plane; find the least co-efficient of friction that will allow the beam to rest in all positions.

- VII. A string is stretched over a rough plane curve, find the tension at any point, the equilibrium being limiting. Two equal weights, P and P are attached each to an extremity of a weightless string which hangs over a rough cylinder whose axis is horizontal. Shew that either weight must be increased by $P(e^{\mu\pi} - 1)$ in order that it may begin to descend.
- VIII. State Hook's Law and define Young's Modulus. Find the work done in stretching a given elastic string to three times its natural length.
- IX. Find the attraction of a uniform circular lamina on a particle situated in a straight line drawn through the centre of the lamina at right angles to its plane.
- X. Define potential, and prove that, if V be the potential at any point, the component attraction at that point in the direction of the axis of $x = \frac{dV}{dx}$

Find the potential at any external point of a uniform, infinite plate of gravitating matter.

Prove that at any point x, y, z where there is no attracting matter $\frac{d^2V}{dx^2} + \frac{d^2V}{dy^2} + \frac{d^2V}{dz^2} = 0$.

PROBLEMS. (Honour Paper).

A. NEWHAM, B.A.

Time—Three hours.

- I. If a uniform triangular lamina be suspended from a fixed point by three strings each having one end attached to a corner of the lamina, and the other to the fixed point, prove that their tensions will be to each other in the ratio of their lengths.
- II. Prove that the central axis of two forces P, Q intersects the shortest distance c between them, and divides it in the ratio $Q(Q + P \cos \theta) : P(P + Q \cos \theta)$ where θ is the angle between their directions. Prove also that the principal couple is $\frac{c \cdot P \cdot Q \cdot \sin \theta}{\sqrt{P^2 + Q^2 + 2P \cdot Q \cos \theta}}$

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- III. An endless string passes round four smooth pegs $ABCD$ in the form of a square, having AB, CD horizontal and hangs in loops between A and B and between C and D . If α & β be the inclinations to the vertical of the tangents at B and C to the catenaries formed by these loops, prove that

$$\frac{1}{\sin \alpha \log \cot \frac{\alpha}{2}} - \frac{1}{\sin \beta \log \cot \frac{\beta}{2}} = 2$$

- IV. If the curve $r = a \sin n\theta$ be described under a central force P to the pole, show that .

$$P = h^2 [2n^2 a^2 r^{-5} - (n^2 - 1)r^{-3}]$$

- V. A point P moves so that its velocity is compounded of two constant velocities, one of which is in a fixed direction, and the other is perpendicular to the line joining P to a fixed point. Find the orbit described by P .
- VI. A body is describing a parabola about a centre of force in the focus. When it is passing the apse, the force suddenly becomes repulsive ; find the eccentricity of the subsequent path.
- VII. If the resistance to a motion of a projectile varied inversely as its velocity, show that the equation to the hodograph would be of the form $r \sin \theta = \mu \theta$.
- VIII. If a solid cone whose angle is 2α be just immersed in a homogeneous liquid with a generating line in the surface of the liquid, and the resultant pressure on the curved surface makes an angle θ with the vertical, prove that

$$(1 - 3 \sin^2 \alpha) \tan \theta = 3 \sin \alpha \cos \alpha$$

- IX. A cone of semi-vertical angle 30° and axis h floats with its axis vertical and vertex downwards in a fluid whose density is one-third greater than its own. Show that the rim of its base will be just immersed if the fluid rotate as if rigid with angular velocity $\sqrt{\frac{g}{h}}$ about a vertical line coinciding with the axis of the cone.
- X. Two sets of rectangular axes have the same origin ; prove that the six co-ordinate axes all lie on a cone of the second degree.

XI. The tangent of the angle between the generating lines of the surface $\frac{x^2}{a} - \frac{y^2}{b} = z$, which pass through the point

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$$f, g, h, \text{ is } \sqrt{\frac{\frac{ab}{4} + \frac{bf^2}{a} + \frac{ay^2}{b}}{h + \frac{a-b}{4}}}$$

XII. If a string be unwound from a helix so that the straight portion is a tangent to it, show that any point on the string will describe the involute of a circle.

MENTAL AND MORAL SCIENCE, I. (Pass Paper).

FRANCIS ANDERSON, M.A.

Time—Three hours.

[Note : *Not more than eight questions to be attempted.*]

I. Butler: Dissertation on Virtue, and Sermons on Human Nature.

1. What according to Butler are the two regulative principles in human nature? Is there any inconsistency in his account of their mutual relation?

2. "Live according to Nature." In what different ways may this remark be interpreted?

3. Explain the "perception of good or ill desert" on Butler's theory.

4. What according to Butler are the grounds of the obligation to Benevolence?

5. "Butler takes an essentially *statical* view of human nature." Explain and illustrate this remark.

II. Stewart's Outlines of Moral Philosophy :

1. Can the Moral Faculty be properly described as a *sense*?

2. What distinction does Stewart make between the Moral Faculty and our "other active powers"?

2. What reply does Stewart make to Hume's explanation of our belief in Causality?

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4. How would you distinguish Imagination from (a) Memory, (b) Conception ?

5. Write a short comment on each of the following quotations :—

(a) "Our notions both of body and mind are merely relative."

(b) "It is absurd to ask why we are bound to practice virtue."

MENTAL AND MORAL SCIENCE, II. (Pass Paper).

FRANCIS ANDERSON, M.A.

Time—Three hours.

[Note : *Not more than eight questions to be attempted.*]

I. Locke : Essay on Human Understanding—Book II.

1. What does Locke mean by "simple ideas of sensation," "simple ideas of reflection," "simple modes," "mixed modes" ?

How, according to Locke, do we know the existence of "objects extrinsical to the mind" ? What reply might be made to his argument ?

3. What are the elements involved in the notion of Personal Identity ?

4. How does Locke distinguish between true and false ideas ?

5. Write a short comment on each of the following quotations :—

(a) "All notions terminate in simple ideas."

(b) "Complex ideas of modes and relations are originals and not copies."

II. Schwegler's History of Philosophy, (Descartes to Hegel).

1. Discuss the statement that Spinoza's philosophical position was a development of that of Descartes.

2. What is meant by the saying that Kant was the Copernicus of Philosophy ?

3. "Nihil est in intellectu quod non fuerit in sensu,—nisi ipse intellectus." How would this be interpreted by (a) Leibnitz ; (b) Kant ?

4. Explain the meaning of the following as used by Kant :—*Transcendent, Transcendental, Apperception, Regulative ideas.*

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5. Explain briefly the process of *Dialectical Development* as expounded by Hegel.

MENTAL AND MORAL SCIENCE (Honour Paper).

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. What grounds exist for questioning the authenticity of Book V. of the Nicomachean Ethics?
- II. *αὕτη μὲν οὖν ἡ δικαιοσύνη ἀρετὴ μὲν ἐστὶ τελεία, ἀλλ' οὐχ ἅπλως ἀλλὰ πρὸς ἕτερον. . . . τί δὲ διαφέρει ἡ ἀρετὴ καὶ ἡ δικαιοσύνη αὕτη, δῆλον ἐκ τῶν εἰρημένων.*
Explain and develop the above statements.
- III. The question whether the virtue of a man and the virtue of a citizen are identical is mooted in the Ethics of Aristotle. How would you answer it with reference to Public Education in Australia?
- IV. Distinguish distributive and corrective justice.
- V. Illustrate the following :—
Τοῦ δὲ πολιτικοῦ δικαίου τὸ μὲν φυσικόν ἐστι, τὸ δὲ νομικόν.
- VI. Exhibit in tabular form Hamilton's distribution of the constituent parts of philosophy.
- VII. Write brief explanatory notes on the philosophic meaning of the following terms :—
Mind, phaenomenon, substance, ontology, power, perception, attention, imagination.
- VIII. Enumerate, as given by Hamilton, the special conditions of consciousness. What is meant by the duality of consciousness?
- IX. How does Hamilton disprove Locke's assumption that consciousness and the recollection of consciousness are convertible?
- X. How can you account for the fact the laws of association sometimes appear to be violated?

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MENTAL AND MORAL SCIENCE (Honour Paper).

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Indicate Locke's, and also Hume's, points of agreement and disagreement with Hobbes as an ethical philosopher.
 - II. Sketch Clarke's ethical system, and criticise its defects.
 - III. What is the cardinal point in Shaftesbury's system?
 - IV. Butler regards human nature as "a system in which some springs of action are naturally governing and regulative, while others are naturally submissive to regulation."
Explain and illustrate this statement.
 - V. State and examine the arguments which a Pessimist might adduce against the theory that human life is normally, and on the whole, attended with a balance of pleasure over pain.
 - VI. How can you reconcile the following remark of Mill's with his Greatest Happiness principle?—
"It is better to be Socrates dissatisfied, than a pig satisfied."
 - VII. A cannibal rescues a shipwrecked seaman, in order to eat him. According to Mill, his motive would be good;—why?
 - VIII. Comment on the following quotation:—
"In the golden rule of Jesus we read the complete spirit of the Ethics of Utility."
 - IX. On what grounds does Mill contend that the feeling of duty, when associated with utility, cannot be "analysed away," like certain other moral associations?
 - X. How may justice be distinguished from other branches of morality?
Explain Mill's statement that justice is an appropriate name for certain social utilities.
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NOVEMBER, 1889.

ORDINARY EXAMINATION FOR THE DEGREE
OF B.Sc.

FIRST YEAR.

LATIN }
GREEK } No Candidates.
FRENCH }
GERMAN }

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ELEMENTARY PURE }
MATHEMATICS } The same papers both in Pass
ELEMENTARY PHYSICS } and Honours as set for the
First Year of the B.A. Degree.

BIOLOGY & PHYSIOLOGY }
PRACTICAL BIOLOGY AND } The same papers as set
PHYSIOLOGY } for the First Year of
the M.B. Degree.

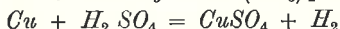
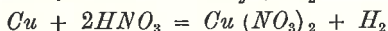
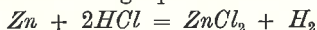
INORGANIC CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

[N.B.—Candidates are expected to write formulæ and equations
wherever possible.]

I. Discuss the following equations :—



II. Describe fully any one method for preparing dilute solutions
of (a) hydriodic acid, (b) hydrocyanic acid, (c) hydrofluo-
silicic acid.

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- III. Nitrogen, phosphorus, arsenic, and antimony, are generally placed in one group. State fully the reasons for this. Has boron any affinities to this group? Explain your answer.
- IV. State what you know of the nature, preparation, and properties of bleaching powder, and explain how it is that practically all the chlorine which it contains is set free by dilute sulphuric acid.
- V. How are the anhydrous chlorides of phosphorus, boron, and aluminium usually prepared? Explain fully the reaction in each case, and also the action of these compounds on water.
- VI. Describe in outline the manufacture of aluminium from bauxite, explaining carefully the chemical re-actions involved.
- VII. Explain fully what you understand by an acid and a base. Is ammonia a base? Name and give the formulæ of any substances which act as bases and also as feeble acids.
- VIII. State clearly what you understand by an *atom* and a *molecule*. Are there any reasons for believing that atoms ever exist in the free state?
-

SECOND YEAR B.Sc.

Ordinary Exam.,
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Second Year.
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PURE MATHEMATICS }
ELEMENTARY APPLIED } The same papers as set for Pure
MATHEMATICS } Mathematics for the Second
Year of the B.A. Degree.

PHYSIOLOGY }
PRACTICAL PHYSIOLOGY } The same papers as set for
Physiology and Practical
Physiology for the Second
Year of the M.B. Degree.

PHYSICS I.

PROFESSOR BRAGG, M.A.

Time—Three hours.

I. Enunciate the laws of reflexion and refraction of light, and explain what is meant by 'total internal reflexion.'

A hemispherical bowl whose inner surface is polished is so placed that its edge is in a horizontal plane. Find whereabouts on the polished surface a vertical ray must strike the bowl so that after one reflexion it may just get out of the bowl, skimming the edge.

If the bowl be filled to the brim with water, whose refractive index is $\frac{4}{3}$, show that a ray following this path will be totally internally reflected at the surface of the water, and find where a vertical ray must fall on the water surface so that it may just be able to emerge after one reflexion at the polished surface.

II. Show that if θ be the angle of a prism, and D the minimum deviation of a certain ray in passing through the prism, then

$$\mu = \frac{\sin \frac{D + \theta}{2}}{\sin \frac{\theta}{2}}$$

where μ is the refractive index of the ray.

Explain why the apparent length of the spectrum can be altered by turning the prism slightly.

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III. Prove the formula

$$\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$$

Where f is the focal length of a lens, u and v the distances from the lens (supposed thin) of the source of light and the image respectively.

Describe two experimental methods of finding the focal length of a convex lens.

Show that a pencil passing excentrically through a lens at a distance y from the axis suffers a deviation $\frac{y}{f}$

IV. Explain what is meant by "achromatism," and how a combination of lenses can be made achromatic.

V. Find the size of the stop in an Astronomical Telescope whose lenses are of focal lengths F and f and of semi-apertures b and b' . The stop is to be just big enough to exclude the images of all points formed by partial pencils.

If two micrometer wires were placed across the stop at a given distance apart, how would you calculate the angular distance between them in the field of view of the telescope?

VI. Draw a diagram of a Newton's Telescope, and show the path through it of a pencil of rays emanating from one point of an object to which it is directed.

VII. A piece of plate glass of thickness T and index of refraction μ is laid on a printed page. How much are the letters raised?

An isosceles glass prism of index μ is used as a total reflector in such a way that the light, after entering normally at one face, is reflected at the base and emerges normally at the other face. Show that in addition to the reflexion there is produced a displacement of the image of amount $(1-\mu^{-1})$ times the distance of either face from the opposite edge.

VIII. What are the necessary conditions for harmonic vibration? Show that two added harmonic vibrations of the same period still make a harmonic vibration of this period. If the amplitude of the two be A and B respectively, find the amplitude of the compound vibration.

PHYSICS II.

PROFESSOR BRAGG, M.A.

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Time—Three hours.

- I. Explain the process of charging an electroscope by induction. Show that in general the induced charge is less than the inducing, and mention any exceptions to this rule.
- II. On what points in the construction of a Leyden jar does its capacity depend? Show that if C be the capacity of a jar, and V the potential to which it is charged, the energy of the charge is $\frac{1}{2} CV^2$.
- Two jars have capacities equal to those of spheres of 100 cm. radius and 200 cm. radius respectively. The former is charged to a potential 20. Find the energy of this charge. The two knobs of the jars are then put in contact, so that a spark passes. Find the energy of the spark.
- III. What is the magnetic moment of a magnet? How would you find it experimentally?
- IV. What is the constant of a galvanometer? Calculate it for a tangent galvanometer of 50 turns of wire, the mean radius of the coil being 12 cm., and H being 2356.
- V. What is the usual meaning of the term "electromotive force of a cell?" State roughly the electromotive forces of the cells in most general use. What cell is taken as the standard?
- The E.M.F. between the poles of a battery on open circuit is 2.06 volts. When the current is closed through a galvanometer, it is found to give a current of 9.1 ampères, and the difference of potential between the poles is .95 volt. Find the resistance of the battery and of the galvanometer circuit.
- VI. State the law which connects the heat developed in a wire with the resistance of the wire and the amount of current, and explain how you would proceed to find by experiment the constant of this law, pointing out the precautions you would adopt to obtain an accurate result.
- VII. What are the coefficients of linear dilatation, and of cubical

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dilatation of a solid? How can the latter be found from the former (1) in the case of an isotropic body, (2) in the case of a crystal?

Describe an accurate method of finding experimentally the coefficient of linear dilatation of a metal.

- VIII. What is the Dew Point? Given the dew point of this room at any moment, what other facts would you require to know in order to be able to find the pressure of the vapour in the room? Given these facts, how would you then proceed?
- IX. What is meant by the statement that the heat developed in the compression of air is the equivalent of the work spent? If this equation of quantities hold good in the case of gases, where does it break down in the case of solids?

HONOUR PAPERS.

The Honour Papers in Physics for the Second Year were the same as the Pass Paper in Physics for the Third Year.

ORGANIC CHEMISTRY (Pass Paper.)

PROFESSOR MASSON, M.A., D.Sc., AND PROFESSOR RENNIE,
M.A., D.Sc.

Time—Three hours.

(N.B.—Candidates are expected to write formulæ and equations wherever possible).

- I. Describe a general method for ascending the series of fatty acids.
- II. How does zinc-ethyl react (1) with water, (2) when heated with ethyl iodide?
- III. Describe the preparation of chloroform.
- IV. An aldehyde is said to be a compound intermediate between an alcohol and an acid. Explain this.
- V. What is a nitrile? How does it react with (1) aqueous alkalis, (2) nascent hydrogen?

- VI. What is the constitution of glycerine? Mention facts in support of the theory.
- VII. What are the chief ingredients of the *light oil* from coal-tar? How may they be separated?
- VIII. What are the chief properties of picric acid? How would you prepare it from benzene?
- IX. How do the homologues of benzene behave towards oxidizing agents? Give a few examples.

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PRACTICAL CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Four hours.

Each Student was given *one* of the following sets of two mixtures to analyse qualitatively :—

- I. (a) Barium nitrate and potassium urate.
(b) Potassium oxalate, Calcium chloride, Strychnine.
- II. (a) Ammonium benzoate and Cadmium sulphate.
(b) Mercuric cyanide, Potassium tartrate, and Quinine.
- III. (a) Potassium hippurate and Zinc Carbonate.
(b) Uric acid and Morphia.
- IV. (a) Calcium nitrate and urea acetate.
(b) Silver nitrate, potassium citrate, and strychnine.
- V. (a) Magnesium ammonium phosphate and strychnine.
(b) Stannous chloride and ammonium succinate.
- VI. (a) Magnesia and potassium iodide.
(b) Potassium phosphate, urea, and cadmium sulphate.

HONOUR PAPERS.

The Honour Papers in Chemistry for the Second Year were the same as the Pass Papers in Chemistry for the Third Year.

MORPHOLOGICAL AND SYSTEMATIC BOTANY I.

PROFESSOR RALPH TATE, F.L.S., F.G.S.

Time—Three hours.

- I. Illustrate the law of numbers and alternation of parts in reference to the floral whorls.

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- II. Describe fully the chief morphological varieties of the stamen.
- III. What are the various modifications of the Andræcium in respect of adhesion and cohesion?
- IV. State how Boragineæ and Solanaceæ resemble or differ from each other, as regards corolla, stamens, pistil, and fruit.
- V. Give the characters of the sub-classes of Dicotyledons and Monocotyledons.
- VI. State the characters of the Orders Malvaceæ and Rutaceæ.
- VII. Describe the chief forms of placentation, and illustrate by reference to actual plants.
- VIII. Refer to their Natural Orders the accompanying plants.

MORPHOLOGICAL AND SYSTEMATIC BOTANY II.

PROFESSOR RALPH TATE, F.L.S., F.G.S.

Time—Three hours.

- I. Draw up a synopsis of the characters of the different kinds of fruits.
- II. Explain and illustrate, by reference to actual plants, the application of the following terms:—*phyllary*, *strophiole*, *pollinia*, *indusium*, *accumbent radicle*.
- III. Identify and describe the botanical objects placed before you.
- IV. Describe in botanical language the accompanying plants.
- V. Determine the species of the accompanying plants.
- VI. Refer to their Natural Orders the specimens (1 to 5).

GEOLOGY I.

PROFESSOR RALPH TATE, F.G.S., F.L.S.

Time—Three hours.

- I. Upon what principles are stratified rocks classified?
- II. Define the terms Eocene, Miocene, Pliocene and Pleistocene, and explain clearly the principle upon which the sub-division is based.

- III. In Central Australia the Cretaceous beds rest upon the Archæan. Enumerate the formations which are missing in this area, and offer any explanation of their absence.
- IV. How does coal occur in the rocks? Explain how the coal-fields have become separated from one another.
- V. What proofs have we of great climatic changes in recent geological times?
- VI. Give the range in time of the following fossil groups or genera:—Graptolites, Trilobites, Ammonites, Belemnites, Nautilus, Productus, Spirifera, Rugose Corals, Trigonina, Voluta.
- VII. Assign to their proper Zoological and Geological positions the accompanying fossils.
- VIII. Describe the Archæan group of rocks as developed in the Adelaide district.

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GEOLOGY II.

PROFESSOR RALPH TATE, F.G.S., F.L.S.

Time—Three hours.

- I. What is understood in Geology by (a) *Formation*, (b) *Outcrop*, and (c) *Stratification*?
- II. Define the terms *clay*, *mud*, and *silt*; and explain how they differ from one another.
- III. What economical product is derived from the decomposition of granite? Explain its derivation.
- IV. By what characters would you determine whether a piece of rock given you for identification was an aqueous or igneous rock? What inferences can be drawn as to the origin of a rock from the manner of its occurrence in the field?
- V. Explain how each of the following was formed:—*Shale*, *Lignite*, *Stalagmite*, *Pumice*, *Conglomerate*?
- VI. Explain the meaning of the terms:—*Anticlinal*, *Dip*, *Joint*, and *Fault*; and draw a *section* illustrating the phenomena referred to under these terms.
- VII. Describe the various modes in which ice may act as an agent of denudation

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VIII. What are the component minerals of the following rocks :—
gneiss, basalt, felstone, graphic granite, greenstone.

IX. Name the accompanying rock specimens.

THIRD YEAR B.S.C.

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November, 1889.

MATHEMATICS { The same papers as set for a Pass in
Mathematics for the B.A. Degree.

PHYSICS I. LIGHT AND HEAT.

PROFESSOR LYLE, M.A.

Time—Three hours.

No Student is to attempt more than TEN questions.

- I. Describe fully Foucault's (revolving mirror) method of determining the velocity of light in air. Show how by this method you can also determine the velocity of light in water or glass, and explain how the result obtained would enable you to decide whether the emission theory or the wave theory of the propagation of light is the correct one.
- II. If you are given a double convex lens, and asked to determine accurately its focal length, how would you proceed? Prove any formula you may require.
- III. Describe fully how you would determine the wave length of yellow light by means of Fresnel's or Pouillet's biprism.
- IV. Explain what is meant by plane polarized, circularly polarized, and elliptically polarized light, and describe how you would distinguish them from one another and from ordinary light.
- V. Light polarized in a plane perpendicular to the plane of incidence falls on the plane surface of a transparent medium at an angle of incidence ϕ . Making the same assumptions as Fresnel, if the amplitude of the original ray be unity and of the angle of refraction be ϕ' , prove that the amplitude of the reflected ray is

$$\frac{\tan(\phi - \phi')}{\tan(\phi + \phi')}$$

Hence explain Brewster's law for the polarizing angle.

- VI. If you are asked to project on a screen the rings and crosses produced by the interference of polarized light transmitted through a thin crystalline plate, how would you proceed.

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- VII. Describe the method and the apparatus used for determining accurately specific heats by the method of mixtures.

Show how to eliminate the error that may still arise due to radiation.

- VIII. Distinguish between *thermal conductivity* and *thermometric conductivity* or *diffusivity*.

Describe how Forbes determined the thermal conductivity of an iron bar.

- IX. State the Second Law of Thermodynamics, and thence deduce that the efficiency of a reversible engine is the greatest that can be obtained with a given range of temperature.

- X. Prove the following thermodynamic relation:—

The absolute temperature multiplied by the increase of pressure per unit increase of temperature when the volume is constant, is equal to the quantity of heat required per unit increase of volume the temperature being constant, or in symbols—

$$t \left(\frac{dp}{dt} \right)_v = \left(t \frac{d\phi}{dv} \right)_t$$

Hence or otherwise show that the freezing point of water is lowered by increase of pressure.

- XI. Explain how an Absolute Scale of Temperature may be deduced from the equal efficiency of all reversible heat engines working between the same limits of temperature, and show how the Absolute Zero is theoretically arrived at and defined.

- XII. How is the pressure of a gas accounted for by the Kinetic Theory?

Prove Boyle's law by the same theory.

PHYSICS II. ELECTRICITY AND MAGNETISM.

PROFESSOR BRAGG, M.A

Time—Three hours.

- I. What are the lines of force of an attracting system of matter? What is a tube of force?

If a small tube of force cut through a thin plate of attracting matter perpendicular to it, show that the product $F\sigma$ (using the ordinary notation) in passing from one side to the other changes by $4\pi m$, where m is the mass of matter included in the tube.

- II. Find the potential of a system consisting of a sphere and a concentric spherical shell insulated from it, both being charged with known quantities of electricity.

If the outer sphere be of metal and in communication with the earth, and the inner a soap-bubble blown at the end of a pipe of insulating material, and if there be a charge Q on the soap-bubble, find at what rate the potential of the system will alter as the radius of the bubble increases. Will the charge on the outer sphere alter or remain constant?

- III. Two of the arms AB , AC of a Wheatstone's Bridge are composed of fine iron wires each of 1 ohm resistance. The other two arms BD , CD are 1 ohm resistance coils; A and D are connected with the battery, which has an *E.M.F.* of one volt, and an internal resistance of 2 ohms. B and C are connected to the galvanometer of resistance $\cdot 2$ ohms. The resistances of connecting wires may be neglected. If one of the fine iron wires be heated till its resistance increases 3%, find the current through the galvanometer.

- IV. Show that the potential of a simple magnetic shell of strength j on an external point is $\pm jA$ where A is the solid angle subtended at the point by the edge of the shell.

Describe the manner in which the theories of magnetic shells are extended so as to include those of electrical currents.

- V. Define the terms 'Coefficient of Mutual Induction,' 'Coefficient of Self Induction.'

A straight conductor capable of sliding freely on horizontal fixed bars, and forming with them a closed voltaic circuit, carries a constant current of 1 ampère. If the bar point East and West and those on which it lies North and South, and if the length of the bar be 1 metre, the intensity of H be $2\cdot 361$, and the dip be 60° , find the force necessary to keep the bar from moving.

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- VI. Describe a method of calibrating the wire of a Wheatstone's Bridge by means of the Differential Galvanometer, pointing out the precautions to be taken in order to get a reliable result.
- VII. Explain the method of construction and the manner of using Captain Kater's pendulum.

CHEMISTRY I. (Pass Paper).

PROFESSOR MASSON, M.A., D.Sc.

Time—Three hours.

[Candidates are expected to write formulæ and equations wherever possible.]

- I. What is the constitution of the mustard-oils? How is it proved?
- II. Give an account of lactic acid and its isomers?
- III. How is aceto-acetic ether formed? How does it react (1) with aqueous alkalis, (2) with sodium ethylate?
- IV. Give an account of the acids obtained by heating citric acid.
- V. Describe and exemplify some general methods for the preparation of organo-metallic compounds.
- VI. How may primary, secondary, and tertiary amines be distinguished?
- VII. How many isomeric naphthols are known? and how is this explained by theory? By what steps may one of them be obtained from the corresponding nitro-naphthalene?
- VIII. Protocatechuic acid is obtained by fusing with potash either sulpho-*m*.oxybenzoic acid or sulpho-*p*.oxybenzoic acid. What light does this throw upon (1) the constitution of protocatechuic acid itself, (2) that of the substance obtained by distilling it with lime?
- IX. What do you know of the constitution of the terpenes?

CHEMISTRY II. (Pass Paper).

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

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[*N.B.*—Candidates are expected to write formulæ and equations wherever possible.]

- I. Describe how to prepare a sample of pure methyl alcohol.
- II. Describe the decomposition by heat of the compounds $N(CH_3)_4OH$, $N(C_2H_5)_4OH$, and $N(CH_3)_3HCl$. What practical use has been made of the decomposition of the latter compound?
- III. Give a short account of the preparation and properties of the phthaleins and the method by which their constitution has been determined.
- IV. Describe the preparation of diazobenzene nitrate, diazo-amido-benzene, and amido-azo-benzene. State generally the nature of the chrysoïdines and the tropæolines.
- V. Give an account of the preparation and principal properties of phenyl-hydrazine. What compounds are formed when the substances resulting from the reaction of phenyl-hydrazine with ketones of the formula $R \cdot CO \cdot CH_3$ are heated with zinc chloride?
- VI. Give some account of the more important characteristics of thallium and its compounds.
- VII. How is sodium hyposulphite prepared, and what decomposition does its solution undergo on standing?
- VIII. Classify the elements you are acquainted with according to Mendelejeff's Periodic Law, and explain briefly what you understand by that law.

PRACTICAL CHEMISTRY (Pass).

PROFESSOR RENNIE, M.A., D.Sc.

Time—Seven hours.

The following were given for qualitative analysis—

- (a.) An alloy containing *Tin, Antimony, Bismuth, Zinc, Aluminium, Magnesium, Potassium, Mercury.*
- (b.) A mixture containing *Strychnine, Ammonium Tartrate, Ammonium Oxalate, and Borax.*

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CHEMISTRY I. (Honour Paper).

PROFESSOR MASSON, M.A., D.Sc.

Time—Three hours.

- I. Give an account of the preparation and properties of thiophene.
- II. How may the constitution of quinoline be demonstrated?
- III. Describe fully one method for the synthesis of indigo.
- IV. Give some account of the aromatic phosphorus derivatives.
- V. What is the true nature of the substance proposed as a substitute for sugar under the name of *saccharine*, and how is it made?
- VI. How are oximes obtained, and what are their general characters?
- VII. Give a classification of the carbo-hydrates, with examples, and explain the principles on which it is based.
- VIII. Exemplify the phenomenon known as *physical isomerism*, and give a short account of the hypothesis by which Van t'Hoff seeks to explain it.
- IX. What information has been obtained from the study of organic compounds, with regard to the *atomic volumes* of the elements?

CHEMISTRY II. (Honour Paper).

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

- I. Classify the hydrocarbons C_nH_{2n-2} , and describe their preparation and properties.
- II. Describe the effect of heat on the α —, β —, and γ —hydroxy-acids (monobasic) of the fatty series, giving some account of the products.
- III. State what you know of the nature and preparation of the glyoxalines.
- IV. Give some account of atropine and its probable constitution.
- V. How are the aromatic hydrazines obtained? Write a brief account of the chief reactions into which they enter.

VI. Explain and comment upon the following results of Thomson :—

$$\frac{1}{2}(\text{H}_2:\text{Cl}_2) = (\text{H},\text{Cl}) - \frac{1}{2}(\text{H},\text{H}) - \frac{1}{2}(\text{Cl},\text{Cl}) = 22000\text{c}$$

$$\frac{1}{2}(\text{H}_2:\text{Br}_2) = (\text{H},\text{Br}) - \frac{1}{2}(\text{H},\text{H}) - \frac{1}{2}(\text{Br},\text{Br}) = 8440\text{c}$$

$$\frac{1}{2}(\text{H}_2:\text{I}_2) = (\text{H},\text{I}) - \frac{1}{2}(\text{H},\text{H}) - \frac{1}{2}(\text{I},\text{I}) = -6036\text{c}$$

VII. Describe the preparation of platinum from the raw ore.

VIII. On passing a current of sulphuretted hydrogen into water in which powdered iodine is suspended, hydriodic acid is formed, but the solution cannot be obtained of greater specific gravity than about 1.56. Why not?

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PRACTICAL CHEMISTRY (Honour Paper).

PROFESSOR RENNIE, M.A., D.Sc.

Time—Seven hours.

The following were given—

- (a.) Volumetric determination of a solution of dextrine.
- (b.) A mixture for qualitative analysis containing Silver Nitrate, Sodium Chloride, Potassium Iodide, Ammonium Bromide, Calcium Oxalate, Tartar Emetic, Strychnine, and Lithium Carbonate.

PHYSIOLOGY I.

PROFESSOR ANDERSON STUART, M.D., AND

E. C. STIRLING, M.A., M.D.

Time—Three hours.

[*N.B.*—Not more than five questions are to be attempted.]

- I. What is a "vital phenomenon?" Contrast the uses of the word "vital," in the past, with its use at the present time. To what extent is the physiologist of the day justified in using the term at all now?
- II. Mammalian blood: Describe its microscopical appearances with a low power (say $\times 50$), and with a high one (say $\times 350$). Describe also the appearances that may be presented by the use of the highest available magnifying powers, and with the aid of any re-agent.

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- III. Striped muscle : What is meant by the following terms?—
- (1) Current of rest ;
 - (2) Negative variation of the current of rest ;
 - (3) Current of action ;
 - (4) Physical electrotonus ;
 - (5) Physiological electrotonus.
- IV. Write an account of sleep, from the standpoint of the Physiologist.
- V. Discuss the probable nature, and manner of operation of the motor mechanisms of the iris.
- VI. Describe the minute anatomy of the ovary, with special reference to the growth of the ovum and its immediate surroundings.

PHYSIOLOGY II.

Time—Three hours.

PROFESSOR ANDERSON STUART, M.D., AND

E. C. STIRLING, M.A., M.D.

[*N.B.*—*Not more than five questions are to be attempted.*]

- I. The circulation of the Blood : (1) When is there a negative pressure within the left ventricle of the heart, and to what cause is it attributed ? (2) What is the probable causation of the dicrotic wavelet.
- II. The secretion of sweat :—what is the nature of the process ? Show how your statements may be proved experimentally.
- III. The spinal cord : write a general account of the functions of its grey matter.
- IV. What do you understand by the terms “Sense of equilibrium” and “Vertigo ?” Refer to any organs of the body which may be considered in connection with these conditions.
- V. Write an account of the characteristics of the tissues of the early embryo from the point of view both of the histologist and the chemist.
- VI. What are the chemical features and relationships of myosin ? How would you prepare it ? What is its physiological import ?

PRACTICAL PHYSIOLOGY I.

The same paper as set for Practical Physiology for the Second Year M.B.

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PRACTICAL PHYSIOLOGY II.

E. C. STIRLING, M.A., M.D.

Time—Three hours.

- I. Insert and tie a canula in the bile duct of the animal provided.
- II. Place a ligature on the cervical sympathetic.
- III. Determine, by actual experiment, the latent period of contraction of striated muscle.

GEOLOGY (Pass Paper).

PROFESSOR R. TATE, F.L.S., F.G.S., AND MR. R. ETHERIDGE.

Time—Three hours.

- I. What is an *Artesian Well*? In what parts of Australia have they been met with? And from what geological formation is the water supposed to be derived?
- II. What do you understand by *organic accumulation* as apart from ordinary fossiliferous deposits? How many kinds are there? Give examples.
- III. How many kinds of Faults are there? Name them; and show how a Fault is distinguished from a Dyke.
- IV. What probable subdivisions of the Cambrian and Silurian have so far been recognized in Australia? State where, and give a few characteristic fossils of each division.
- V. Discuss the various theories explaining the origin of coal and kerosine shale respectively.
- VI. By what tests applicable in the field should you determine whether an igneous rock were intrusive or interbedded? Mention some igneous rocks seldom or never found other than intrusive.
- VII. What evidence have we of the existence of volcanoes in

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South Australia; and point out the geological period during which they were active.

VIII. Give the mineralogical composition of the following rocks:—basalt, trachyte, felsite. Name the rocks having the following composition:—plagioclase and hornblende; orthoclase and hornblende; quartz, orthoclase and hornblende.

IX. Name and describe the accompanying specimens.

GEOLOGY, &c. (Honour Paper).

PROFESSOR RALPH TATE, F.L.S., F.G.S.

Time—Three hours.

- I. By what tests can you distinguish the several species of the following groups of minerals:—(1) chromite, magnetite, ilmenite; (2) massive fluor, apatite, pyromorphite; (3) graphite, antimonite, molybdenite; (4) tourmaline, cassiterite, rutile? State how you apply the tests and the results in the several cases.
- II. How is a geological map constructed, and what is the information conveyed by it?
- III. Give the characters of the Orders and families of Fossil Corals. Briefly define the leading genera of Palæozoic corals and indicate their geological horizons.
- IV. Enumerate the more important Palæozoic limestones, and mention some important genera or species of Invertebrates characteristic of each one.
- V. Discuss the age of the "Desert Sandstone," as it occurs in South Australia.

MINERALOGY.

MR. T. C. CLOUD, F.C.S., &c.

Time—Three hours.

SECTION I.

- I. Name the crystalline models (1–10) on the table, and mention the names of four minerals in each system represented.

- II. Name the ten mineral-species on the table.

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SECTION II.

(You may select any eight of the following questions.)

- III. Name and give drawings of four hemihedral forms of the cubical system and describe their derivation.
- IV. Describe the relation of the scalenohedron, rhombohedron and dihexagonal pyramid to the hexagonal pyramid.
- V. Describe the different kinds of lustre assumed by minerals, and give an example of each.
- VI. Name the species which contain titanium as an essential constituent, and give the distinctive characters of each.
- VII. From what ore is the metal tin obtained? Describe its crystalline form, colour, hardness, and specific gravity.
- VIII. How would you distinguish between the minerals—cassiterite, wolframite (wolfram), sphalerite (zinc blende), and rutile?
- IX. Describe the physical and chemical characters of six ores of copper, giving the percentage of copper in each.
- X. Describe the physical characters and chemical composition of the following gems:—Spinel, sapphire, topaz, chrysoberyl, and noble garnet (almandite).
- XI. Describe four species of the feldspar-family.
- XII. Describe the physical characters and chemical constitution of the minerals in which iron and sulphur are combined.

PALÆONTOLOGY (Pass Paper).

PROFESSOR R. TATE, F.L.S., F.G.S., AND MR. R. ETHERIDGE.

Time—Three hours.

- I. What are Graptolites? Of what rocks in Australia are they characteristic? Describe a few leading genera.
- II. In what formation has the oldest known *Mammal* been found? Give its name and affinities.
- III. Name the genus of Dipnoid fishes, the teeth of which are found in the European Trias, and which still lives in Queensland rivers.

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- IV. What genus of Struthious bird besides the Emu existed in Australia during post-tertiary times? Where have its remains been found?
- V. Describe the three principal modes of fossilisation?
- VI. In what geological horizon in Australia have Labyrinthodont remains been found?
- VII. How do you distinguish between the Enaliosaurian Reptiles *Plesiosaurus* and *Ichthyosaurus*?
- VIII. Give the range in time of the following genera :—*Lingula*, *Lepidodendron*, *Bellerophon*, *Glossopteris*, *Phacops*, *Archæocyathus*, *Olenus*, *Trinucleus*, *Spiriferina*, and *Waldheimia*.
- IX. State the points of difference between the genera *Ammonites* and *Crioceras*. Of what rocks are they characteristic both in Europe and Australia.
- X. Assign to their proper Zoological and Geological positions the accompanying fossils.

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HIGHER PUBLIC EXAMINATION.

FIRST YEAR SUBJECTS.

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> 1. LATIN, PART I. 2. GREEK, PART I. 5. ENGLISH LANGUAGE AND LITERATURE 6. PURE MATHEMATICS, PART I. 7. PHYSICS, PART I. | } | <p>The same papers as set for the First Year Pass of the B.A. Degree in these subjects.</p> |
| <ul style="list-style-type: none"> 10. INORGANIC CHEMISTRY 12. ELEMENTARY BIOLOGY AND PHYSIOLOGY | } | <p>The same papers as set for the First Year Pass of the B.Sc. Degree in these subjects.</p> |
| <ul style="list-style-type: none"> 3. FRENCH. | | <p>No candidate presented himself in this subject.</p> |

SECOND YEAR SUBJECTS.

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> 8. APPLIED MATHEMATICS. | | <p>The same paper as set for the Second Year Pass of the B.A. Degree in this subject.</p> |
| <ul style="list-style-type: none"> 6. PURE MATHEMATICS, PART II. 7. PHYSICS, PART II. 11. ORGANIC AND PRACTICAL CHEMISTRY 15. GEOLOGY | } | <p>The same papers as set for the Second Year Pass of the B.Sc. Degree in these subjects.</p> |
| <ul style="list-style-type: none"> 1. LATIN, PART II. 2. GREEK, PART II. 9. LOGIC 13. PHYSIOLOGY 14. BOTANY | } | <p>No candidates presented themselves in these subjects.</p> |

GERMAN.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

I. Translate—

Und es wacket und siedet und brauset und zischt,
Wie wenn Wasser mit Feuer sich mengt,
Bis zum Himmel sprizet der dampfende Gisch,
Und Fluth auf Fluth sich ohn' Ende drängt,
Und will sich nimmer erschöpfen und leeren,
Als wollte das Meer noch ein Meer gebären.

II. Translate—

Ewig wechselt der Wille den Zweck und die Regel, in ewig
Wiederholter Gestalt wälzen die Thaten sich um,
Aber jugendlich immer, in immer veränderter Schöne
Ehrst du, fromme Natur, züchtig das alte Gesetz!
Zimmer dieselbe, bewahrt du in treuen Händen dem Manne,
Was dir das gaukelnde Kind, was dir der Jüngling vertraut,
Nährest an gleicher Brust die vielfach wechselnden Alter;
Unter demselben Blau, über dem nämlichen Grün
Wandelu die nahen und wandeln vereint die fernen Geschlechter,
Und die Sonne Homers, siehe! sie lächelt auch uns.

III. Translate—

Der Wahn ist kurz, die Ren' ist lang.
Lieblich in der Bräute Locken
Spielt der jungfräuliche Kranz,
Wenn die hellen Kirchenglocken
Laden zu des Festes Glanz.
Ach! des Lebens schönste Feier
Endigt auch den Lebensma.
Mit dem Gürtel, mit dem Schleier
Reißt der schöne Wahn entzwei.

IV. Translate—

Sie nennen's ein königlich Spiel, und sagen, es sei für einen
König erfunden, der den Erfinder mit einem Meer von Ueberfluß
belohnt habe. Wenn das wahr ist, so ist mir's, als wenn ich ihn
sähe. Er war minorenn an Verstand oder an Jahren, unter der
Vormundschaft seiner Mutter oder seiner Frau, hatte Milchhaare
im Bart und Flachshaare um die Schläfe, er war so gefällig wie
ein Weidenschöbbling und spielte gern Dame und mit den Damen,
nicht aus Leidenschaft, behüte Gott! nur zum Zeitvertreib. Sein
Hofmeister, zu thätig, um ein Gelehrter, zu unlenksam, um ein
Weltmann zu sein, erfand das Spiel in usum Delphini, das so
homogen mit Seiner Majestät war—und so ferner.

V. Translate—

Nach diesem Geschäfte ging ich noch auf dem Brocken spazieren;

denn ganz dunkel wird es dort nie. Der Nebel war nicht stark, und ich betrachtete die Umrisse der beiden Hügel, die man den Hegenaltar und die Teufelskanzlei nennt. Ich schoß meine Pistolen ab, doch es gab kein Echo. Plötzlich aber höre ich bekannte Stimmen, und fühle mich umarmt und geküßt. Es waren meine Landsleute, die Göttingen vier Tage später verlassen hatten, und bedeutend erstaunt waren, mich ganz allein auf dem Bloßsberge wieder zu finden. Da gab es ein Erzählen und Verwundern und Verabreden, ein Lachen und Erinnern, und im Geiste waren wir wieder in unserm gelehrten Sibirien.

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- VI. Sketch briefly the plot of *Götz von Berlichingen*.
VII. Translate into German Prose:—

There were once three students, who crossed the Rhine, and came to an inn where they were accustomed to put up. And as they went in, the hostess came to meet them, and asked them what they would have. "Beer and wine," answered they; "and your pretty little daughter we should also like to see." "Fresh beer and clear wine ye can indeed have; but my daughter is no longer living; here she lies upon the bier." Now one of the three students had long loved her, and, while the others gazed sadly at her, and even began to weep, he kissed her pale mouth, and swore to love only her for ever.

- VIII. a. Describe and illustrate the various ways of forming the plural of nouns in German.
b. Indicate some peculiarities in the German use of personal pronouns.
c. Select from the German passages given above ten irregular verbs, and give their principal parts. Select also five German words of cognate origin with the English equivalents, and comment on any phonetic differences.

THEORY AND HISTORY OF EDUCATION.

PAPER I.

ARCHDEACON FARR, M.A., LL.D., AND J. A. HARTLEY, B.A., B.Sc.

Time—Three hours.

- I. Define and illustrate the following logical terms:—*Genus*, *species*, *difference*, *extension*, *intension*.
II. Explain and give examples of fallacies caused (a) by the use of ambiguous terms, (b) by an undistributed middle.

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- III. Explain the psychological laws of contiguity, similarity, and contrast; and show how a knowledge of these laws is useful to the teacher.
- IV. State the order of development of the mental faculties.
- V. Distinguish moral instruction from moral training.
- VI. Discuss the question of home lessons.
- VII. Criticise the scheme for the Junior Public Examination as bearing on school work.
- VIII. It is often said that the teachers of to-day do too much for their pupils. Examine this statement.

THEORY AND HISTORY OF EDUCATION.

PAPER II.

ARCHDEACON FARR, M.A., LL.D., AND J. A. HARTLEY, B.A., B.Sc.

Time—Three hours.

- I. State the principal works of Comenius, and give an account of any one of them.
 - II. Compare Pestalozzi and Froebel as educators.
 - III. What are the special advantages of scientific teaching as an intellectual discipline? Say what branch you would chose, and show how it fulfils the conditions you lay down.
 - IV. Give your views on the early steps in teaching Latin or French to a child.
 - V. Discuss the school teaching of Mathematics.
 - VI. How would you distribute the lessons for a week in a Boys' or Girls' High School? (Disregard the case of children too young to begin languages, and assume six classes).
 - VII. Give your views on Manual Training, and show how you would put them into practice.
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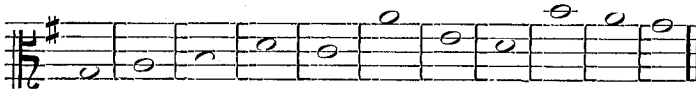
COUNTERPOINT.

PROFESSOR IVES, MUS. BAC.

Ordinary Exam.
Mus. Bac.
First Year,
November, 1889

Time—Three hours.

- I. Give a list of consonant intervals available in counterpoint; say which are termed "Perfect" and which "Imperfect."
- II. Give three examples of the Tritone (in any species), and show how each may be corrected.
- III. How would you describe the Fifth species of Counterpoint?
- IV. To the following C.F. add a part for Bass in the Second species :—



- V. To the above C.F. add a Tenor part in the Fourth species and a Treble part in First species (three parts).
- VI. Transpose the C.F. given in question IV. an octave lower (Bass Clef) and add two upper parts in First species (three parts).
- VII. In the key of F. write at least six different cadences available for the Third species in three parts. Place the C.F. twice in the highest part, twice in the middle, and twice in the lowest part.
- VIII. To the following C.F. add a Bass in the Fifth species :—



- IX. To the above C.F. add parts for Bass in the Third species and Tenor in First species (three parts).

** Candidates are particularly requested to figure the Bass of each exercise.

Ordinary Exam.
Mus. Bac.
Second Year,
November, 1889.

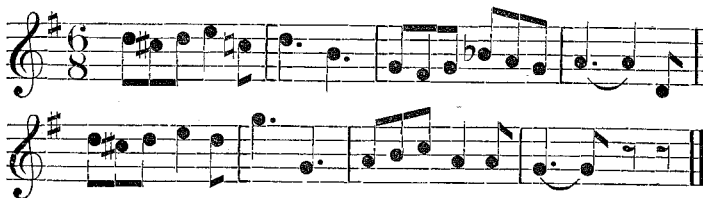
SECOND YEAR MUS. BAC.

HARMONY.

PROFESSOR IVES, MUS, BAC.

Time—Three hours.

- I. Define 'Diatonic,' 'Chromatic,' 'Strict style,' 'Free style,' 'Transposition.'
- II. In what respect does the Day theory of Harmony differ from any other with which you may be acquainted?
- III. Harmonize the following melody for four voices. Introduce chromatic discords and also passing notes. Keep one or more of the parts moving in bars II. IV. and VI.

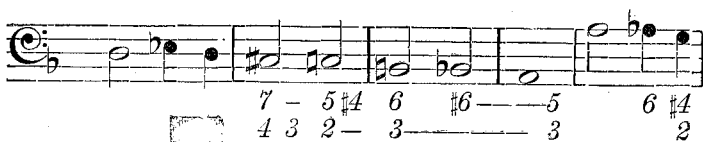


- IV. Mention all the discords known to you and arrange them in three divisions as follows :—

1. Fundamental discords ;
2. Discords by suspension (suspensions).
3. Essential discord.

Say what difference in treatment these classes require.

- V. Add three upper parts to the following bass. Give the roots of all discords upon a separate staff. Say if any modulation appears, and point out one instance of incorrect notation :—



VI. Analyse the following :—(Eight bars from Prelude in E minor, Mendelssohn.)

VII. Fill up and explain the following passages :—

VIII. Write the suspension 4-3 with all available inversions.

IX. State under what circumstances the leap of an augmented interval may be taken in part writing.

X. Give some of the rules concerning 'Pedals.'

** *Questions III., V, and VI. are essential.*

COUNTERPOINT, CANON AND FUGUE.

PROFESSOR IVES, MUS. BAC.

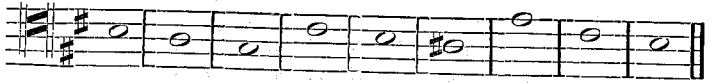
Time—Three hours.

- I. Explain 'Tasto solo,' 'Mean,' 'Canto Fermo,' 'Descant,' 'Diaphony.'
- II. State the main point of difference between the Greek modes and the Western Church modes.
- III. May the unison be used in :—(a) two part Counterpoint (b) three or more parts.
- IV. To the following C.F. add part for Tenor and Bass, *both* in the second species (three parts) :—

V. Place the above C.F. in an Alto part, and add parts for Tenor (third species) and Treble (first species), three parts.

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- VI. To the following C.F. add an Alto part in the first species (two parts) :—



- VII. Place the above C.F. in the Bass, and add a Treble part in the fifth species, and parts for Alto and Tenor in first species (four parts).

- VIII. Continue the following as a Double Counterpoint in the 8th for at least ten bars. Show the inversion. Figure the bass in each case :—



- IX. Mention some of the rules given to enable us to decide whether a given Fugue subject will require a tonal or real answer.

- X. Give answers to the following subjects, and state which are 'real' and which 'tonal.'

(a)



(b)



(c)





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* * * You are particularly requested to figure the bass of each Counterpoint exercise.

ACOUSTICS.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Explain a method of measuring the velocity of sound through the air. In what ways does the velocity of sound depend on the nature of the medium through which it passes?
- II. Describe some way of measuring the wave length in air of a sound of given pitch. Describe Kundt's method of comparing the velocities of sound in air and in glass.
- III. How does the pitch of the note given out by a stretched string depend on the tension?
- IV. If a stretched string be touched gently at a point which is distant from one end a half, a third, a fourth, or so on, of the whole length of the string, it is possible, by bowing, to get a distinct and persistent note from the string; but if the point touched be not a point of equal subdivision, this is impossible. Account for these facts.
- V. How is it that an organ pipe can be tuned by raising or lowering a sheet of lead fitted over the end of it?
- VI. If a tuning fork be struck and held in the air by its stem the sound it gives can be intensified by passing a small paper cylinder over one of the prongs. Explain how this effect is caused.
- VII. Give the physical explanation of the differences between the sounds of the different vowels.
- VIII. If two notes of 300 and 325 vibrations per second, respectively, be loudly sounded, there will be 25 beats a second; there will also be a deep note of 25 vibrations per second. State the causes to which these are respectively due.
- IX. What is the system of equal temperament? State roughly how much on this system the intervals vary from their true values.

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THIRD YEAR MUS. BAC.

HARMONY.

PROFESSOR IVES, MUS. BAC.

Time—Three Hours.

I. Write, in short score, four parts, a progression of at least eight bars, introducing—

- (a) a pedal ;
- (b) suspension of complete chords ;
- (c) an enharmonic modulation.

II. Add four upper parts to this figured bass Limit the choice of harmony to the diatonic or chromatic discords or concords in the key of D. minor. Introduce suspensions and passing notes. Point out an instance of incorrect notation.

III. Show the harmonics, as far as the twentieth, that would be generated by a string sounding this note :—

IV. Write, in *five* parts, the three forms of the Augmented 6th chord, whose root would be the note given in question III. Add key signature and resolve each discord.

V. Of what use are cadences in music? What form of cadence is used in the following?—



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- VI. Write a song with pianoforte accompaniment to the following words. The pianoforte part need not be fully written out. A figured bass with occasional bars fully filled in to show the style of accompaniment will suffice.

O lovely were the summer hours of innocence and youth,
When every look was full of love, and every thought was truth,
When the rose of hope bloomed sweetly and the voice of beauty stole
Like a seraph's song of gladness o'er the pulses of my soul.

There's a darkness on my day of life that ever must remain,
There's a blight upon the flower, it will never bloom again,
And beauty's harp neglected lies, as silently and lone
As the withered heart that bowed before the magic of its tone.

- VII. Write a four part song to the above words. Let there be some imitation of a free character if thought suitable.
- VIII. Analyse the following:—(The first nine bars of Variation V., Sonata Op. 109, Beethoven).

* * Only *one* of questions VI. and VII. need be attempted.

COUNTERPOINT, CANON AND FUGUE.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

- I. Define 'Strict Counterpoint' and 'Free Counterpoint,' and show in what respects the two styles differ.
- II. Write a second violin part between the following parts, the Counterpoint to be in the 'free' style, and to be in quavers throughout:—

cevi

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The first system of the musical score for 'cevi' consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. Both are in the key of B-flat major (two flats) and 4/4 time. The melody in the upper staff begins with a quarter note G4, followed by quarter notes A4, Bb4, and C5. The bass line starts with a half note G3, followed by quarter notes A3, Bb3, and C4. Below the staves, the figured bass notation is: 7 4 6 - 8 6 6 - 4 6 6. A '2' is written below the first '4' and a '6' is written below the first '6'.

The second system of the musical score for 'cevi' also consists of two staves in the same key and time signature. The melody in the upper staff continues with quarter notes D5, E5, F5, and G5. The bass line continues with quarter notes D4, E4, F4, and G4. Below the staves, the figured bass notation is: 6 - 7 - - - 6 - 6 - 4 - 6. A '5' is written below the first '6', and a '2' is written below the '4'.

III. To the following C.F. add four upper parts in the Fifth species (five parts):—

The C.F. for exercise III is a single staff in bass clef, key of B-flat major (two flats), and 4/4 time. It contains a sequence of seven half notes: G3, F3, E3, D3, C3, Bb2, and A2.

IV. Place the above C.F. in the Alto parts, and add parts for Bass (second species) and Treble (third species), three parts.

V. Mention any works known to you in which the following contrapuntal devices are used:—

- (a) Imitation by diminution ;
- (b) Double Counterpoint in the Tenth ;
- (c) Fugue on two subjects.

VI. Write the subject and counter-subject to precede the following answers. The Counterpoint is double.



VII. Continue the following Canon at the 4th below, strict as to intervals. The Canon to be perpetual and to include at least eight bars within the repeats. Add a Coda :—



VIII. Write a two part fugue for pianoforte on the following subject. The fugue to be not less than thirty bars in length and to have entries of the subject or answer, or a portion of either, in four different keys, and to include a stretto. Fig:re the bass :—



IX. Write the exposition of a four part fugue on the above subject. Vocal score.

* * Questions III., IV., and VIII. are essential.

FORM AND INSTRUMENTATION.

PROFESSOR IVES, MUS. BAC.

Time—Three Hours.

- I. Explain the difference between Accent and Rhythm.
- II. What are the Rhythms most employed in music ?

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JUNIOR PUBLIC EXAMINATION IN MUSIC.

THEORY OF MUSIC.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

- I. Define—Note, Pitch, Chord, Melody, Accidental, Leger, Sub-mediant.
- II. Give the English, French, and German methods of naming notes (as crotchet, quaver, etc.), and say which you think the best, and why?
- III. Show how many demisemiquavers a double dotted quaver would be worth.
- IV. What is the use of a Clef? Give the alphabetical names of the following notes:—



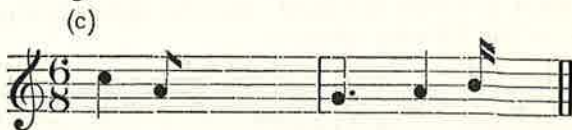
- V. Give a rule for proving what an interval will become if inverted. Does the *quality* of an interval (as perfect, major, etc.) change by inversion?
- VI. Over the note E write (a) a diatonic semitone, (b) a chromatic semitone, (c) an augmented 5th, (d) a Minor 7th, (e) a Major 9th, (f) an augmented 2nd.
- VII. Invert the intervals given in answer to question VI., and re-name them.
- VIII. Write the signatures of the following keys, using the G Clef:—B minor, F minor, B flat minor, G sharp minor, D minor.
- IX. Write the scale of F Minor (Harmonic form). Then write the relative major scale. Show by slurs where the semitones fall in each scale.
- X. Why are bar lines used in music? What is the difference between accent and emphasis?
- XI. State the difference between Simple and Compound times.

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Group the following notes, (1st) as four bars of 3 time, (2nd) as four bars of 6 :—



XII. Fill up the blanks in the following bars with rests so as to make each measure complete according to the time signature :—



XIII. Transpose the following melody a Minor third lower, using the G. Clef (Treble Clef) :—



XIV. Transpose the melody given in question XIII into the Tonic Major. Add proper key signature. Any Clef may be used.

XV. How many notes are needed to form a common chord?
Is there any difference between a diminished triad and a minor common chord?

XVI. Add an Alto part to the following, using only common chords :—

ccxi

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The musical score is written for piano and consists of two staves. The top staff uses a treble clef and the bottom staff uses a bass clef. Both staves are in G major, indicated by one sharp (F#), and 4/4 time. The melody in the right hand starts on G4, moves to A4, then B4, and continues with a series of eighth and quarter notes. The bass line in the left hand starts on G2, moves to A2, then B2, and continues with a series of quarter notes. The piece concludes with a double bar line.

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VIII. In the key of D write (a) the second inversion of a Dominant 7th; (b) the first inversion of a Dominant Minor 9th. Resolve each.

IX. Add three upper parts (in short score) to the following bass :



COUNTERPOINT.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

X. Point out any errors in the following bars :—



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XI. Add a Counterpoint in the third species above the following C.F. :—



XII. Place the above C.F. in the Treble part (an octave higher) and add a part for Bass in the fourth species.

XIII. What is wrong with the following :—



XIV. State briefly all you know about Richard Wagner.

SEPTEMBER, 1889.

Preliminary
Examination,
September, 1888.

PRELIMINARY EXAMINATION.

I.—DICTATION.

A better spirit than exists in the English people never existed in any people in the world: it has been misdirected, and squandered upon party purposes in the most degrading and scandalous manner; they have been led to believe that they were benefiting the commerce of England by destroying the commerce of America, that they were defending their Sovereign by perpetuating the bigoted oppression of their fellow-subjects; their rulers and their guides have told them that they would equal the vigour of France by equalling her atrocity; and they have gone on wasting that opulence, patience, and courage, which, if husbanded by prudent and moderate counsels, might have proved the salvation of mankind. The same policy of turning the good qualities of Englishmen to their own destruction, which made Mr. Pitt omnipotent, continues his power to those who resemble him only in his vices; advantage is taken of the loyalty of Englishmen to make them meanly submissive; their piety is turned into persecution, their courage into useless and obstinate contention; they are plundered because they are ready to pay, and soothed into asinine stupidity because they are full of virtuous patience. If England must perish at last, so let it be: that event is in the hands of God; we must dry up our tears and submit.

2 AND 3, ENGLISH GRAMMAR AND COMPOSITION.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Two hours.

A—GRAMMAR.

I.—Give two examples of the possessive case, one formed by the use of a preposition, and the other by a case ending.

II.—Substantives are either :—

Concrete,
Abstract, or
Collective.

Give one instance of each division.

III.—Enumerate the personal pronouns, and give an example of a reflexive pronoun.

IV.—Illustrate by examples the various ways of forming the preterite tense.

V.—What is peculiar in the grammatical structure of such a phrase as—“He rode the race?” Give similar instances.

VI.—Analyse the following sentence, and parse the words in italics :—

I *began to work* at 10 o'clock in the morning, and ceased *working* at noon, as I *could not work any longer*, but I hope to do *better* to-morrow, if my headache *be better*.

VII.—Select, from the Examination Paper before you, five words of Latin origin, and five words of pure English.

B—COMPOSITION.

Select for composition any *one* of the following subjects :—

- (a) A brief account of your school and class-fellows.
- (b) A condensed report of the contents of any book which you have read carefully and admire especially.
- (c) The most striking features in Australian scenery.

4. ARITHMETIC.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Two hours.

- I.—Add together forty-five millions seven hundred and three thousand and fifty-six, and two millions fifteen thousand and fifteen ; and subtract from the sum, forty-six millions seven hundred and eight thousand and seventy. Express your result in words and figures.
- II.—To multiply a number by fifty, add two ciphers and divide by two. Explain this rule.

- III.—A cubic centimetre of water weighs nearly 15·43 grains. How many cubic centimetres are there in a gallon; and how many ounces troy in 1,000 cubic centimetres of water?
- IV.—Express $\frac{9}{11}$ of 11 yards as a fraction of a mile, and an acre as a decimal of a square mile.
- V.—Men were set to work to plough a farm. They did $\frac{1}{4}$ the first day, $\frac{1}{5}$ the second day, $\frac{1}{6}$ the third day, and $\frac{1}{8}$ the fourth day, and there were still 31 acres to plough. How many acres were there in the farm, and how long would they have taken to finish it if they had commenced and continued at the average rate of the four days during which they worked?
- VI.—I buy forty dozen oranges at the rate of six for fivepence and sell them at the rate of eight for sevenpence. How much do I gain or lose?
- VII.—What is the difference between the simple and compound interest on £400 for two years at 5 per cent?
- VIII.—How many reels of cotton one inch long and one inch in diameter could you pack into a cubical box which measures one foot every way internal measurement?
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JUNIOR PUBLIC EXAMINATION.

I ENGLISH.

A—OUTLINES OF ENGLISH HISTORY.

E. G. BLACKMORE, ESQ.

Time—Two hours.

Of the Twelve Questions, not more than six are to be answered ; and Candidates must not answer more than One Question in each group of two Questions under the same letter.

A I.

What do you consider the most memorable century in English history ? Give facts in support of your views.

A II.

What is the meaning of the name of England, considered—

- (a) Etymologically,
- (b) Historically,
- (c) Politically.

What do you understand by Britain ; North Britain ; South Britain ; Great Britain ; The United Kingdom ?

When does the history of England begin ?

B I.

Give short lives of Alfred and Canute, and point out any difference between the earlier and later invasion of the Danes.

B II.

Give a short sketch of the reigns of any two of the following Sovereigns :—Henry V. ; Richard III. ; Henry VIII. ; Elizabeth ; Charles I. ; William III. ; George III.

C I.

(a) In what sense may the reign of Edward the Confessor be regarded as the actual beginning of the Norman Conquest ?

(b) What were the respective claims of Harold and William of Normandy to the Crown of England ? Compare their respective validity.

(c) What was the character and effect of the Norman Conquest?

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C II.

“The Reign of Edward I. is one of the most memorable in the whole course of English history.” Give a sketch of this reign, and state what historical facts support the above remark.

What was the date of the complete incorporation of Wales with England?

D I.

Give a sketch of the characters of any two of the following—Dunstan, Simon of Montfort, Oliver Cromwell, Bacon (Lord Chancellor), Raleigh, Marlborough, Nelson, Wellington.

D II.

In whose reigns were the Act of Union between England and Scotland, and the Act of Union between England and Ireland, passed? Give some of their leading provisions, and state what statesmen were mainly instrumental in effecting the respective unions.

E I.

Give a short account of the wars in which England has been engaged during the reign of Queen Victoria, since 1851.

E II.

What notable events in English History are associated with the following dates—A.D.: 1066; 1215; 1265; 1534; 1588; 1642; 1649; 1688; 1701; 1707; 1757; 1760; 1776; 1801; 1805; 1815; 1832; 1854; 1857; 1869.

F I.

Who were the authors of the following works, and in whose reigns did they live?—

The Compleat Angler; The Canterbury Pilgrims; The Faery Queen; Arcopagitica; Leviathan; The Hind and Panther; Gulliver's Travels; The Rape of the Lock; Titus Andronicus; The Analogy of Religion; The Idylls of the King; The Pleasures of Hope; Novum Organon; Rokeby; The Excursion; Samson Agonistes; Robinson Crusoe; The Confessions of an Opium Eater; The Ancient Mariner; Thalaba; The Earthly Paradise; Atalanta in Calydon; Letters on a Regicide Peace; Utopia; The Tale of a Tub.

F II.

Give the names of at least two authors, with the titles of some of their works, in any six of the following periods of English Literature :—

Anglo-Saxon Period, 596-1066 ; Anglo-Norman Period, 1066-1215 ; Commencement of English Literature, 1215-1350 ; Early English Literature, 1350-1477 ; Reformation Period, 1477-1579 ; The Old Civilisation in conflict with Puritanism, 1579-1660 ; The Re-action and Counter Re-action, 1660-1700 ; The Period from 1700-1729 ; The Period from 1729-1789 ; From the French Revolution to the Reform Bill, 1789-1832 ; The Victorian Period, 1837-1888.

B. ENGLISH LITERATURE.

MACAULAY'S LAYS OF ANCIENT ROME.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Two hours.

- I. Quote, or describe as accurately as you can, three distinct passages from the *Lays*, illustrating respectively the rhetorical, the descriptive, and the pathetic power of Macaulay.
- II. What events in Roman History are foreshadowed in the "Prophecy of Capys?"
- III. Explain the following terms :—*Lictor, augur, forum, pilum, curule chair.*
- IV. Write notes on the italicised words in the following passages :—
 - (a) Astur of the *four-fold* shield.
 - (b) The beast who hath between his eyes the *serpent* for a hand.
 - (c) The proud *Ides* of *Quintilis*
Shall have such honour still.
Gay are the *Martian Kalends* :
December's *None's* are gay :
But the proud *Ides*, when the *squadron* rides,
Shall be Rome's *whitest* day.
 - (d) For this did *Servius* give us laws? For this did *Lucrece* bleed?

For this was the great vengeance wrought on *Tarquin's* evil seed?

For this did those *false sons* make red the axes of their *sire*?
For this did *Scaevola's* right hand hiss in in the *Tuscan* fire?

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(e) Those *trees* in whose dim shadow
The *ghastly priest* doth reign.

V. Give the context of the following quotations :—

1. To every man upon this earth
Death cometh soon or late,

And how can man die better
Than facing fearful odds,

For the ashes of his fathers,
And the temples of his Gods?

2. Heap heavier still the fetters ; bar closer still the grate ;
Patient as sheep we yield us up unto your cruel hate.

But by the shades beneath us, and by the Gods above,
Add not unto your cruel hate your yet more cruel love !

3. So spun she, and so sang she,
Until the east was grey,
Then pointed to her bleeding breast
And shrieked, and fled away.

VI. What models does Macaulay profess to have had before him
in composing the *Lays*.

VII. Trace the process by which, according to Macaulay, the old
Roman Ballads were transmuted into an historical form.

Candidates are to select not more than five questions.

C. GEOGRAPHY.

PROFESSOR RALPH TATE, F.L.S., F.G.S.

Time—Two hours.

- I. What are the political divisions of South America? Indicate their boundaries, and name the chief cities or towns in each.
- II. What is a plateau? How does it differ from a plain? Name three important ones.
- III. Mention the chief centres in the world of the following products :—*Coal, iron, silver, gold, copper, wool, wheat, wine, tobacco, sugar.*

[Indefinite answers, as Australia, will not be accepted.]

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- IV. Write brief and concise particulars of the Australian explorations by each of the following:—Flinders, Baudin, and Stuart.
- V. Explain two of the following terms:—*Delta, oceanic island, tidal wave, contour-line, magnetic meridian.*

2. LATIN.

CICERO IN CATILINAM I. II.

PROFESSOR KELLY, M.A.

Time—Two hours.

Translate and give the connection of each piece with the context of the speech,

Superiora illa, quamquam ferenda non fuerunt, tamen, ut potui, tuli : nunc vero me totam esse in metu propter unum te, quidquid increpauerit Catilinam timeri, nullum videri contra me consilium iniri posse, quod a tuo scelere abhorreat, non est ferendum. Quam ob rem discede atque hunc mihi timorem eripe, si est verus, ne opprimar, sin falsus, ut tandem aliquando timere desinam.

Non enim iam sunt mediocres hominum libidines, non humanae ac tolerandae audaciae ; nihil cogitant nisi caedes, nisi incendia, nisi rapinas. Patrimonia sua profuderunt, fortunas suas obligaverunt, res eos iam pridem, fides nuper deficere coepit : eadem tamen illa, quae erat in abundantia, libido manet. Quodsi in vino et alea commissionationes solum quaererent, essent illi quidem desperandi, sed tamen essent ferendi : hoc vero quis ferre possit, inertes homines fortissimis viris insidiari, stultissimos prudentissimis, ebriosos sobriis, dormientes vigilantibus ?

Quos quidem ego, si ullo modo fieri possit, non tam ulcisci studeo quam sanare sibi ipsos, placare rei publicae, neque id quare fieri non possit, si me audire volent, intellego. Exponam enim vobis, Quirites, ex quibus generibus hominum istae copiae comparentur ; deinde singulis medicinam consilii atque orationis meae, si quam potero, adferam. 18. Unum genus est eorum, qui magno in aere alieno maiores etiam possessiones habent, quarum amore adducti dissolvi nullo modo possunt.

Horum hominum species est honestissima—sunt enim locupletes,—voluntas vero et causa impudentissima.

Postremum autem genus est, non solum numero, verum etiam genere ipso atque vita, quod proprium Catilinae est, de eius dilectu, immo vero de complexu eius ac sinu, quos pexo capillo nitidos aut imberbes aut bene barbatos videtis, manicatis et talaribus tunicis, velis amictos, non togis, quorum omnis industria vitae et vigilandi labor in antelucanis cenis expromitur.

Fill up the blanks in the following passage with the words of Cicero :—

Ex hac enim parte pudor pugnat, illinc——— ; hinc fides, illinc——— ; hinc pietas, illinc——— ; hinc constantia, illinc——— ; hinc honestas, illinc——— ; hinc continentia, illinc——— ; denique acuitas, temperantia, fortitudo, prudentia, virtutes omnes certant cum——— ;

Give meaning and explanation of the following words and phrases :—parricidium, latro, sicarius, testamentorum subjector, circumscriptor, ganeo, nepos, dominatio, est mihi tanti, vadimonia, judicia, proscriptiones.

Translate :—

Video, patres conscripti, in me omnium vestrum ora atque oculos esse conversos ; video vos non solum de vestro ac rei publicae, verum etiam, si id depulsum sit, de meo periculo esse sollicitos. Est mihi iucunda in malis et grata in dolore vestra erga me voluntas, sed eam, per deos immortales, deponite atque obliti salutis meae de vobis ac de vestris cogitate.

Mention the difference in meaning between the singular and plural of comitium, copia, facultas, finis, gratia, impedimentum.

What cases in Latin follow the prepositions clam, coram, prope, citra, sub, and what other preposition bears the meaning contrary to each of them ?

Translate into Latin :—

I hope that our friendship requires no witnesses. They promise to have the garment ready soon.

What cases are used after the adjectives conscius, alienus, plenus, dives, dignus, fretus, praeditus.

Give instances of the use of the Ablative to express quality

by translating "Our teacher (magister) a talented man has just left us.

Translate into Latin :—

Ere you begin we must deliberate. It was the doctrine (placere) of Zeno that that only was good which was honourable.

There are some people moreover who say that I have driven Catiline into exile. If I could have done so by words I should have driven out the very men who talk thus. I suppose that gentleman was so nervous and so very modest that he could not bear the Consul's voice. The moment he was ordered into banishment he obediently departed.

3. GREEK.

PROFESSOR KELLY, M.A.

Time—Two hours.

Translate—Xenophon, Agesilaus I., § 4—

Τὴ δὲ γε μὴν καὶ κοινῇ ἄξιον ἐπαινέσαι τὴν τε πατρίδα, καὶ τὸ γένος αὐτοῦ. "Ἡ τε γὰρ πόλις οὐδεπώποτε φθονήσασα τοῦ προτετιμῆσθαι αὐτοῦς, ἐπεχείρησε καταλύσαι τὴν ἀρχὴν αὐτῶν, οἳ τε βασιλεῖς οὐδεπώποτε μείζωνων ὠρέχθησαν, ἢ ἐφ' οἷσπερ ἐξαρχῆς τὴν βασιλείαν παρέλαβον. Τοιγαροῦν ἄλλη μὲν οὐδεμία ἀρχὴ φανερά ἐστι διαγεγενημένη ἀδιάσπαστος, οὔτε δημοκρατία, οὔτε ὀλιγαρχία, οὔτε τυραννὶς, οὔτε βασιλεία. αὕτη δὲ μόνη διαμένει συνεχῆς βασιλεία.

Derive the words δημοκρατία, ὀλιγαρχία, ἀδιάσπαστος; and parse ὠρέχθησαν, ἐπαινέσαι, προτετιμῆσθαι; also decline in full βασιλεύς, μείζων, αὐδ συνεχῆς.

Translate also—Xenophon, Agesilaus I., § 20—

Ἰγνώσκων δ', ὅτι ἢ μὲν πορθομένη καὶ ἐρημομένη χώρα οὐκ ἂν δύναίτο πολλὸν χρόνον στράτευμα φέρειν, ἢ δ' οἰκουμένη μὲν, σπειρομένη δὲ, ἀένναον ἂν τὴν τροφήν παρέχοι, ἐπεμέλετο οὐ μόνον τοῦ βίβη χειροῦσθαι τοὺς ἐναντίους, ἀλλὰ καὶ τοῦ πρῶτητι προσάγεσθαι. Καὶ πολλάκις μὲν προηγόρευε τοῖς στρατιώταις τοὺς ἀλίσκομένους μὴ ὡς ἀδίκους τιμωρεῖσθαι, ἀλλ' ὡς ἀνθρώπους ὄντας φυλάσσειν.

Parse ἀλισκομένους, ἐπεμέλετο, and write a note on the meaning and derivation of τιμωρεῖν, χειροῦσθαι, ἀένναο.

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Translate also—Xenophon, Agesilaus II., § 10—

Συνιόντων δὲ, τέως μὲν σιγῇ πολλῇ ἦν ἀπ' ἀμφοτέρων. ἡνίκα δὲ ἀπέιχον ἀλλήλων ὅσον στάδιον, ἀλαλάξαντες οἱ Θηβαῖοι δρόμῳ ὁμοίᾳ ἐφέροντο· ὡς δὲ τριῶν ἔτι πλήθρων ἐν μέσῳ ὄντων, ἀντεξέδραμον ἀπὸ τῆς Ἀγησιλάου φάλαγγος, ὧν Ἑριππίδας ἐξενάγει.

Parse ἐξενάγει, ἀλαλάξαντες, ἀντεξέδραμον.

Translate also—Xenophon, Agesilaus, cap. V. § 1—

Ἄλλὰ μὴν καὶ ὅσαι γε ἡδοναὶ πολλῶν κρατοῦσιν ἀνθρώπων, ποίας οἶδ'ε τις Ἀγησίλαον ἠττηθέντα; ὅς μέθης μὲν ἀποσχέσθαι ὁμοίως ᾤετο χρῆναι καὶ μανίας, σίτων δὲ ὑπὲρ καιρὸν ὁμοίως καὶ ἀμαρτίας. Διμοιρίαν γε μὴν λαμβάνων ἐν ταῖς θοίναις, οὐχ οὗτος ἀμφοτέρας ἐχρήτη, ἀλλὰ διαπέμπων, οὐδετέραν αὐτῷ κατέλιπε· νομίζων βασιλεῖ τοῦτο διπλασιασθῆναι οὐχὶ πλησμονῆς ἕνεκα, ἀλλ' ὅπως ἔχοι καὶ τούτῳ τιμᾶν, εἰ τινα βούλοιο.

Mention some of the Greek Suffixes which indicate in Substantives the *Agent*, the *Instrument*, the *Quality*, *Nationality*, and illustrate by examples where you can.

What was the original force of the Article? Quote any expressions in the Attic Greek where it retains its ancient meaning.

Decline in full the words γλυκύς, ἀπλοῦς, ἔλεως, ναῦς, θυγάτηρ, ἡχώ, πολὺς, τριήρης.

State accurately the meaning of the words ὄπη, ἡνίκα, ποθέν, ἐκεῖσε, τηλικούτος.

Translate into Greek Prose—

I knew that you were an Athenian.

They said that Xenophon had gone to Sentes to receive what he had promised him.

If you had been left to yourself you would have perished long ago.

Two young men ran up and burst into laughter on looking at one another.

There he both burnt and devastated all round the city, and at the same time, by a proclamation, he published his willingness that any who desired freedom should apply to him as to an ally.

4. FRENCH.

EMIL J. TRECHMANN, B.A. (Oxon.), Ph.D. (Heidelberg).

Time—Two hours.

PART I.

I. Translate--

- (a) C'est l'heure où Paris se montre dans toute sa beauté. Pendant la journée, le plâtre des façades fatigue l'œil par sa blancheur monotone, les chariots pesamment chargés font trembler les pavés sous leurs roues colossales, la foule empressée se croise et se heurte, uniquement occupée à ne point manquer l'instant des affaires ; l'aspect de la ville entière a quelque chose d'âpre, d'inquiet et de haletant ; mais dès que les étoiles se lèvent, tout change ; les blanches maisons s'éteignent dans une ombre vaporeuse ; on n'entend plus que le roulement des voitures qui courent à quelque fête : on ne voit que passants flâneurs ou joyeux ; le travail a fait place aux loisirs.
- (b) "Ne t'inquiète pas de ma santé, bon Jacques, jamais je ne me suis mieux portée ! je ne vieillis pas du tout de peur de te faire du chagrin. Rien ne me manque et je vis comme une propriétaire. J'ai même eu cette année de l'argent de trop, et, comme mes tiroirs ferment très-mal, je l'ai placé à la caisse d'épargne, où j'ai pris un livret en ton nom. Ainsi, quand tu reviendras, tu te trouveras dans les rentiers. J'ai aussi garni ton armoire de linge neuf, et je t'ai tricoté trois nouveaux gilets pour le bord.
- "Toutes tes connaissances se portent bien. Ton cousin est mort en laissant sa veuve dans la peine. J'ai dit que tu m'avais écrit de lui remettre les trente francs que j'avais touchés sur ta délégation, et la pauvre femme se souvient de toi, matin et soir, dans ses prières."
- (c) Je me suis toujours singulièrement amusé de ces "sauve qui peut" amenés par un subit orage. Il semble alors que chacun, surpris à l'improviste, perde le caractère factice que lui a fait le monde ou l'habitude pour trahir sa véritable nature.
- (d) Il était aisé de voir que son silence et sa solitude lui étaient plus chers que la bienveillance du petit bossu ; il se le tint pour dit et redevint muet.

- (e) Le métier de grand seigneur semblait le seul qui lui convint ; puis, tout à coup, la nécessité de préparer un abri à sa couvée a transformé notre oisif en travailleur.
- (f) "Eh ! c'est vous, voisin ! entrez donc ! je ne vous croyais pas si matinal : aussi j'avais mis une sourdine à ma chanterelle ; j'avais peur de vous réveiller."

II. Grammar—

- (1) *Pesamment*. What is the adjective from which this adverb is derived ? Mention the exceptional adjectives which do not form their adverbs in the same manner. What is the adverb of *inquiet* ?
- (2) Conjugate *se lever* and *inquiéter* in the present and the future indicative. Give also the pluperfect indicative and past conditional (1st person sing. only) of *se porter*.
- (3) Put down the infinitive, the present and past participles, and the 1st person singular of the present and preterite tenses (indicative) of *entend*, *éteignent*, *reviendras*, *croyais*, *peut*.
- (4) *Jamais je ne me suis mieux portée ; les trente francs que j'avais touchés*. Explain the agreement of the participles in these sentences, and state the rules.
- (5) What are the substantives corresponding to the verb *croise* and the adjective *joyeux* ? Explain the derivation of the words *tiroir* and *sourdine*.
- (6) *Il semble alors que chacun . . . perde*. According to what rule is *perde* in the subjunctive mood ?

PART II.

III. Translate into English—

En 1661, quelques mois après la mort de Mazarin, il arriva un événement qui n'a point d'exemple, et ce qui est non moins étrange, c'est que les historiens l'ont ignoré. On envoya dans le plus grand secret, au château de l'île Sainte-Marguerite, dans la mer de Provence, un prisonnier inconnu, d'une taille au dessus de l'ordinaire, jeune et de la figure la plus belle et la plus noble. Ce prisonnier, dans la route, portait un masque, dont la mentonnière avait des ressorts (*springs*) d'acier, qui lui laissaient la liberté de manger avec le masque sur son visage. On avait ordre de le tuer s'il se découvrait. Il resta dans l'île jusqu'à ce qu'un officier de confiance, nommé Saint-Mars, gouverneur de Pignerol, ayant été

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fait gouverneur de la Bastille, l'an 1690, l'alla prendre à l'île Sainte-Marguerite, et le conduisit à la Bastille, toujours masqué.

—Voltaire.

IV. Translate into French—

I learned from him that he used every day to carry his dinner to his father, who was working on the left bank of the Seine; the responsibility with which he was charged had made him attentive and careful. He had received these hard and forcible (*puissant*) lessons from necessity, which nothing equals or replaces. Unfortunately the needs of the poor household had obliged him to neglect school, and he seemed to regret it, for he would often stop before the engravings in the shop windows and ask his companion to read him the inscriptions.

V. Translate into French—

- (1) London is the largest city in the world.
- (2) How old are you? I am fifteen.
- (3) Will you take wine or beer? Water, please.
- (4) Nobody can tell me where he is.
- (5) I bought you a penknife at the bookseller's; has he not sent it to you?

6. GERMAN.

EMIL J. TRECHMANN, B.A. (Oxon.), Ph.D. (Heidelberg).

Time—Two hours.

[*N.B.*—Candidates may write either in German or English characters.]

I. Translate:—

(a.) Es dauerte nicht lange, so saß da eine Kaze an dem Weg und machte ein Gesicht wie drei Tage Regenwetter. „Nun was ist dir in die Quere gekommen, alter Bartpufer?“ sprach der Esel. „Wer kann da lustig sein, wenn's einem an den Kragen geht,“ antwortete die Kaze, „weil ich nun zu Zahnen komme, meine Zähne stumpf werden und ich lieber hinter dem Ofen sitze und spinne, als nach den Mäusen herum jage, hat mich meine Frau ersäufen wollen; ich habe mich zwar noch fortgemacht, aber nun ist guter Rath theuer: wo soll ich hin?“

(b.) Dann lachten sie es aus und führten es in die Küche. Da mußte es so schwere Arbeit thun, früh vor Tag aufstehen, Wasser tragen, Feuer anmachen, kochen und waschen. Obendrein thaten ihm die Schwestern alles ersinnliche Herzeleid an, verspotteten es und schütteten ihm die Erbsen und Linsen in die Asche, so daß es sitzen und sie wieder auslesen mußte. Abends, wenn es sich müde gearbeitet hatte, kam es in kein Bett, sondern mußte sich neben den Heerd in die Asche legen. Und weil es darum immer staubig und schmutzig aussah, nannten sie es Aschenputtel.

(c.) . . . die Kinder antworteten
„der Wind, der Wind,
das himmlische Kind“

und aßen weiter, ohne sich irre machen zu lassen. Hänsel, dem das Dach sehr gut schmeckte, riß sich ein großes Stück davon herunter, und Gretel stieß eine ganze runde Fensterscheibe heraus, setzte sich und that sich wohl damit. Da gieng auf einmal die Thüre auf und eine steinalte Frau, die sich auf eine Krücke stützte, kam heraus geschlichen. Hänsel und Gretel erschrakten so gewaltig, daß sie fallen ließen was sie in den Händen hielten.

(d.) Nun setzten sich die vier Gefellen an den Tisch, nahmen mit dem vorlieb, was übrig geblieben war, und aßen, als wenn sie vier Wochen hungern sollten.

(e.) Gretel weinte bittere Thränen und sprach zu Hänsel „nun ist's um uns geschehen.“ „Still, Gretel,“ sprach Hänsel, „gräme dich nicht, ich will uns schon helfen.“

II. Grammar :—

(1.) What is the gender, the genitive singular, and the nominative plural of the words : Weg, Fahren, Wasser, Wochen, Händen.

(2.) Decline in full : das himmlische Kind.

(3.) Give the past (imperfect) tense of the verbs : kann, werden, spinne, tragen, fallen; and the infinitive of : mußte, aßen, riß, gieng, hielten.

(4.) drei Tage Regenwetter. Mention some other sentences in which the preposition *of* expressed in English is omitted in German.

(5.) wo soll ich hin? Parse the words in this sentence, and supply the infinitive which is understood.

(6.) hat mich meine Frau ersäufen wollen. Give the grammatical reason for the infinitive form *wollen* being here used for the past participle.

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III. Translate into English :—

Ein Vater sagte kurz vor seinem Tode zu seinen drei Söhnen: „Liebe Kinder, ich kann euch nichts zurücklassen als diese unsre Hütte und den Weinberg. In dem Weinberge liegt aber ein verborgener Schatz. Grabt nur fleißig nach, so werdet ihr ihn finden.“ Nach dem Tode des Vaters gruben die Söhne den ganzen Weinberg mit dem größten Fleiße um, und fanden weder Gold noch Silber. Weil sie aber den Weinberg noch nie so fleißig bearbeitet hatten, so brachte er eine solche Menge Trauben hervor, daß sie darüber erstaunten. Jetzt erst fiel den Söhnen ein, was ihr Vater mit dem Schatze gemeint hatte. Sie gruben von nun an den Weinberg immer so fleißig um und gewannen dadurch einen Schatz, der sich jährlich vergrößerte.

IV. Translate into German :—

She danced until it was evening; then she wished to go home. The prince who wanted to see to whom the lovely maiden belonged, offered to accompany her. But before they reached her house she escaped from him and ran into the dove-cot. The prince waited until her father came and told him that the strange maiden had run into the dove-cot. The father thought to himself “Can it be Cinderella?” and made them bring him a hatchet to break open the dove-cot; but when he had broken it open he found nobody inside. When they entered the house, there sat Cinderella amongst the cinders, by the dim light of an oil lamp which was burning before the fire, and dressed in her dirty old dress.

V. Translate into German :—

- (1.) What sort of wine have you?
- (2.) I went out at a quarter to four.
- (3.) He has become a soldier.
- (4.) I am not permitted to ride.
- (5.) He came running in great haste.

VI. GEOMETRY.

PROFESSOR BRAGG, M.A.

Time—Three hours.

In order to pass in this Paper, it is only necessary to satisfy the Examiners in Parts I. and II., taken together; but Candidates who wish to obtain a credit are advised to attempt the questions in Part III., for they earn, as a rule, more marks than the others.

Candidates are expected to be clear in their statements and accurate in their reasoning. Any symbols which conduce to clearness may be employed. When use is made of the result of a preceding proposition, the fact should be stated, but the number of the proposition need not be quoted.

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PART I.

- I. If from the ends of a side of a triangle two straight lines are drawn to a point within the triangle, these are together less than the two other sides of the triangle, but contain a greater angle.
- II. Show that the perpendicular is the shortest line that can be drawn from a given point to a given straight line.
Find all the points which are equally distant from a given pair of straight lines.
- III. If a straight line be divided into two parts, the square on the whole line is equal to the sum of the squares on the parts, together with twice the rectangle contained by the parts.

PART II.

- IV. Triangles on the same base and between the same parallels are equal to one another.
Construct a rhombus equal to a given parallelogram.
- V. ABCD is a square, E and F the middle points of AD and DC; compare the area of the triangle BEF with the area of the square.
- VI. The sum of the squares on those sides of a right-angled triangle which contain the right angle are equal to the square on the third side.
Show that the proposition would still be true if right-angled isosceles triangles were drawn instead of squares, one side of the original triangle being hypotenuse to each of these isosceles triangles.
- VII. In the triangle ABC, the angle at C is twice that at B. AD is the perpendicular drawn from A to BC. Show that $BD = DC + CA$, provided the angle C is not greater than a right angle.

PART III.

- VIII. The straight line drawn perpendicular to a chord of a circle through its middle point passes through the centre,

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AB and CD are two parallel chords of a circle. CA and DB meet when produced in E, AD and BC meet in F. Shew that the centre of the circle lies on EF produced.

- IX. If D be the middle point of a chord of a circle whose centre is C, and if the chord subtend a right angle at a point O, then $OD^2 + DC^2 = (\text{radius of circle})^2$.

Hence show that the middle points of all chords of a fixed circle which subtend a right angle at a fixed point lie on a circle whose centre bisects the straight line joining the fixed point to the centre of the circle.

- X. Describe a circle about a given triangle.

In what cases does the centre fall without the triangle?

VI. ALGEBRA.

R. W. CHAPMAN, M.A., B.C.E.

Time—Two hours.

[In order to pass in this paper it is only necessary to satisfy the Examiners in Parts I. and II. taken together, but Candidates who wish to obtain a credit are advised to attempt the questions in Part III., and to omit those in Part I., at any rate until they have done what they can of the rest of the Paper. As a rule the questions in Part III. carry more marks than the others.]

PART I.

- I. If $a = 3$, $b = 2$, $c = 1$, $d = 0$, find the value of—

$$3ab - 2 \left[bc + c \{ a^2 - d(b+c) \} \right].$$

- II. Resolve the following expressions into factors—

(i.) $x^2 + 9x + 14$

(ii.) $x^2 - 7x - 18$

(iii.) $9x^2 - 27x + 20$

(iv.) $x^3 - y^3$.

- III. Explain the meaning of the term "Highest Common Factor of two quantities."

Find the Highest Common Factor of—

$$2x^4 - 7x^3 - 8x^2 + 13x + 12 \text{ and } 4x^4 - 12x^3 - 15x^2 - 3x - 4.$$

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IV. Multiply $6x^2 + x - 1$ by $4x^5 + 7x^5 + 13x^4 - x^3 - 12x^2 - x$, and divide the result by $2x^3 + 3x^2 + x$.

PART II.

V. Simplify the expression—

$$\frac{bc}{(x-b)(x-c)} + \frac{2ac}{(a-x)(x-c)} + \frac{ab}{(x-a)(x-b)}$$

Find its value when $x = 0$.

VI. Two men set out together to travel a journey of $22\frac{1}{2}$ miles. One man rides on a bicycle and goes at the rate of nine miles an hour; the other man goes on horseback. The bicyclist arrives at the destination $18\frac{3}{4}$ minutes before the other man. At what rate does the horseman travel?

VII. Solve the equations—

(i.) $a(x - 2a - b) + b(x + b) = 0$.

(ii.) $\frac{x+3}{3} - \frac{x}{4} = 2x + \frac{1}{24}$

PART III.

VIII. Explain how it is that—

$$\frac{am}{bm} = \frac{a}{b}$$

And that $\frac{a}{b} \div \frac{c}{d} = \frac{ad}{bc}$

IX. What is meant by a "surd" quantity?

Transform $\sqrt[5]{5}$ and $\sqrt{2}$ into surds of the same order.

Multiply—

$$\sqrt{x+3} - \sqrt{x+2} \text{ by } \sqrt{x+3} + \sqrt{x+2}.$$

X. Owing to a rise of eighteenpence per cask in the price of cement a man who expends £108 gets 20 less casks for his money than he did previously. What was the previous price?

XI. Solve the equations—

(a) $x(3x + 24) = x + 36$

(b) $\begin{cases} 3x - 2y - 4 = 0 \\ 4y - 9x + 14 = 0 \end{cases}$

7. (a) ELEMENTARY PHYSICS.

R. W. CHAPMAN, M.A., B.C.E.

Time—Two hours.

[Candidates may choose any eight out of the following twelve questions, but they must not attempt to answer more than eight questions.]

I. When are a number of forces acting upon a rigid body said to be in equilibrium?

A rod without weight, 6 feet long, is held up by one string, a weight of 5 lbs. is then attached to one end of the rod and a weight of one pound at the other. The rod then rests in a horizontal position. What must be the distance of the string from the end to which the 1 lb. weight is attached?

Supposing that the rod is of uniform thickness, and weighs 3 lbs., what must then be the position of the string?

II. How is it that a loaded waggon is less liable to tip over on a level road than on a road which slopes sideways? In which case is a coach more liable to tip over, when the passengers are all inside, or when they are all on top, and why?

III. A ferry-boat is being rowed across a river at the rate of four miles an hour, whilst the current is carrying it down stream at the rate of three miles per hour. Draw a figure showing how to obtain the direction of motion of the ferry-boat relative to the shore, and find its resultant velocity.

IV. State Boyle's Law, and describe a method of proving it experimentally.

V. Explain the term "coefficient of expansion."

At 0°C the length of a certain piece of Platinum wire is exactly 12 cm. When heated to 60°C its length is found to be 12.00636 cm. Find the coefficient of linear expansion of the platinum.

VI. A flask having a narrow neck is partly filled with water and heated until the water boils; after the water has been boiling some time, but while still boiling, the flask is tightly corked; it is then allowed to cool until all symptoms of boiling cease. On being turned upside

down, however, when some cold water is poured on it apparently starts to boil again. Explain this.

- VII. An observer places a candle in front of a plane mirror. Will the position of the image alter when the observer changes his position? Explain the formation of the image.
- VIII. Describe and account for the phenomenon known as the solar spectrum.
- XI. What is the cause of the sounding of an ordinary open organ pipe? Two pipes are made of the same size and shape, one being of wood and the other of metal; will there be any difference in the sounds emitted? What is the difference in the notes emitted by two similar pipes, one stopped and the other open?
- X. What phenomena can you bring forward to prove that the earth acts as a magnet?
- XI. Describe and explain the action of the gold-leaf electroscope.
- XII. State Ohm's Law.

A battery sends a current through an external resistance which is twice that of the battery, afterwards the external resistance is changed, and one having three times the resistance of the battery is substituted. Compare the strengths of the currents in the two cases.

7(b.) CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Two hours.

[N.B.—Candidates are expected to write formulae and equations wherever possible.]

- I. Given 1092 c.c. of gas at 0°C and 760 m.m. pressure, find the volume at 100°C if the pressure remains the same, and the volume at 3040 m.m. pressure if the temperature remains unaltered.
- II. Write equations representing the action of dilute hydrochloric and sulphuric acids respectively on sodium, iron, and magnesium, giving the names of the products, and explaining the re-action in each case. If the oxides of the metals are used instead of the metals themselves what difference is there in the products?

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- III. A solution of chlorine water is allowed to stand for some time in daylight and bubbles of gas are seen to rise from the liquid. What is this gas, how do you account for its formation, and what properties of chlorine does it explain?
- IV. Some sulphide of iron is placed in dilute hydrochloric acid. Explain, with an equation, the changes which take place. The gas which is given off is burnt in oxygen or air; what gaseous product is formed, and what are its principal uses?
- V. Sal-ammoniac is heated with slaked lime. Write an equation representing the re-action. Mention some uses of the products.
- VI. Red phosphorus is boiled for a long time with nitric acid, and the liquid is evaporated. What is the residue, and how would you test for its presence in a solution? What kind of action does the nitric acid exert in this and in many other instances?
- VII. Silicon is burnt in oxygen. What substance is produced, what are its properties and some of the principal forms in which it occurs in nature?

7 (c) ELEMENTARY BOTANY.

PROFESSOR RALPH TATE, F.L.S., F.G.S.

Time—Two hours.

- I. Give the names and brief descriptions of the enveloping and essential organs of a flower.
- II. What is *pollen*? What is its use?
- III. What is meant by an *inferior ovary*? Give examples.
- IV. Describe the three chief forms of *placentation*.
- V. What is a *fruit*?
- VI. State the peculiarities characteristic of the stamens of the wallflower, sow-thistle, snapdragon, wild oat, and pea.

7 (c) ELEMENTARY PHYSIOLOGY.

E. C. STIRLING, M.A., M.D.

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Time—Two hours.

- I. What things must you cut through in order to expose the front of the cavity of the chest of a dead rabbit? What organs can you then see without disturbing any of the parts?
- II. Describe the outward appearance (to the naked eye) of muscles and tendons. What are their uses?
- III. What is a mucous membrane? Compare it with the skin of the body. Why is the inside of the mouth always red and moist?
- IV. You have eaten a meal of bread, butter, meat, potatoes, and milk. What happens to these substances in the stomach and intestines?
- V. What are the uses of nerves? What do they look like? With what structures of the body are they in connection?

If you were asked to find and display some large nerve in the body of a dead animal, how and where would you look for it?

NOVEMBER, 1888.

SENIOR PUBLIC EXAMINATION.

DIVISION A.

(A)—ENGLISH HISTORY.

THE WAR OF AMERICAN INDEPENDENCE.

E. G. BLACKMORE, ESQ.

Time—Two hours.

NOTE.—*In order to obtain credit, candidates must satisfy the Examiners in both parts of the Paper.*

PART I.

Only Six of the following questions are to be answered.

- I. (a) Give a short sketch of the Struggle for Union (1763-1775), which preceded the Struggle for Independence.
 - (b) What were the principal causes of discontent?
 - (c) When, where, and under what circumstances was the first blood of the American Revolution shed?
- II. (a) Is there reason to believe that the abandonment of North America by France was the result of profound policy?
 - (b) What consequences were anticipated, and by whom?
 - (c) Into what periods may the American War be divided?
 - (d) When was the treaty between France and the United States concluded, and what was its chief article?
- III. (a) Give a general outline of the political and territorial condition of the European States in 1775.
 - (b) What were the greater Colonial powers?
- IV. (a) With what great Act does American history begin? Give the date.
 - (b) Give an account of the Battle of Bunker's Hill.
 - (c) What were the last attempts at conciliation? How were they met?
 - (d) On which side was the popular heart of England?
 - (e) How is this evidenced in the vote for 25,000 men.

- V. (a) Give an account of the Campaign of 1777.
 (b) How did it end?
 (c) What was the effect upon France?
- VI. (a) Narrate the events from the junction of Washington with the French Forces, to the surrender of Yorktown.
 (b) What effect had this event on the war?
 (c) What danger nearer home confronted England at the same time?
- VII. (a) In what condition did America find herself for continuing the war, when peace negotiations were commenced?
 (b) What obligations was America under to the Bourbon Courts, in regard to concluding peace with England?
 (c) Who and what contributed to end satisfactorily to England the struggle with the Bourbons!
- VIII. (a) Give a sketch of the life of Washington, with an estimate of his character.
 (b) Who were the American negotiators who concluded the preliminary treaty of peace?
 (c) When was the definitive treaty concluded?

PART II.

Only Two of the following questions are to be answered.

- IX. (a) What were the English and Colonial theories of Colonial rights, temp. 1763?
 (b) Compare them with the established relations between the Crown and Parliament and the Australian Colonies.
- X. Constitutions are divided into rigid and flexible.
 (a) What do you understand by these terms?
 (b) To which class do you refer the American and English Constitutions respectively?
 (c) Give some of the main principles of the American Constitution, and prove that Congress is not, like the Imperial Parliament, a sovereign legislature.
 (d) What is there peculiar about the American Executive? and show how far this peculiarity may owe its origin to the relations between George III., and his Ministers, and Parliament.
- XI. Trace the part played by George III., in reference to

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the American Colonies, 1763-1783; prove that the Independence of the United States is mainly due to him; and show that the failure to impose autocratic power on the American Colonies was the beginning of that Constitutional system which is now recognised as governing the relations between the Crown, the Executive, and Parliament.

XII. Trace the conduct of Lord Chatham from the passing of the Stamp Act to his death in 1778, explaining his views as to the relations between England and the Colonies, and the policy to be adopted; and show how, had he survived, the treaty between France and the revolted Colonies might have been turned into a means of re-union.

XIII. Show that, if the Crown and Ministers had realised in 1763 that England and its Trans-Atlantic possessions constituted an empire, and not a nation, the whole course of policy would have been the reverse of that pursued, and consequently the position of America might have been that of Australia at the present day.

DIVISION A.

B. ENGLISH LITERATURE.

SCOTT'S LADY OF THE LAKE AND BURKE'S SPEECHES ON AMERICA.

PROFESSOR BOULGER, M.A.. D.LITT.

Time—Three hours.

Candidates are to select not more than three questions from Scott, and four from Burke.

I. Explain the following terms:—

Linn, whinnyard, pibroch, snood, coronach, taghairm, targe, ben-shie, boune, tinchel, rowan, correi.

II. Explain the following allusions?—

1. *The Lady of the Bleeding Heart.*

2. *Alpine's honoured Pine.*

3. *A stag of ten.*

4. *For Tine-man forged by fairy love.*

5. *My sire's tall form might grace the part
Of Ferragus or Ascobart.*
- III. Quote, or refer to, passages in the *Lady of the Lake* illustrative of Scott's descriptive power and mastery of musical verse.
- IV. How are *Malcolm Graeme*, *Brian*, *Blanche of Devan*, *John of Brent*, and *Dunruggan's Widowed Dame* connected with the story of the *Lady of the Lake*.
- V. Describe the action of the poem from the combat between Fitzjames and Roderick to the end.
- VI. Give the dates and the occasions of Burke's two speeches on America.
- VII. Reproduce Burke's estimate of Townsend, Grenville, and Chatham.
- VIII. By what arguments does Burke maintain the following assertion?—
- "I look on the imperial rights of Great Britain, and the privileges which the Colonists ought to enjoy under these rights, to be just the most reconcilable things in the world."
- IX. What reasons does Burke assign for preferring prudent management to the application of force, in dealing with America?
- X. To what six different sources does Burke trace the composition of American character?
- XI. Refer to any passage in the speeches which has strongly impressed you by its oratorical brilliancy and intellectual vigour.

 DIVISION A.

2. LATIN.

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—

Sed non Hannibalem magis infestum tam sanis consiliis habebat quam magistrum equitum, qui nihil aliud, quam quod impar erat imperio, morae ad rem publicam

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praecipitandam habebat; ferox rapidusque consiliis ac lingua immodicus primo inter paucos, dein propalam in vulgus pro cunctatore segnem, pro cauto timidum, adfingens vicina virtutibus vitia, compellabat, premendoque superiorum, quae pessima ars nimis prosperis multorum successibus crevit, sese extollebat.

Et primo cum procul cernerent, veluti flammam spirantium miraculo adtoniti constiterunt; deinde ut humana apparuit fraus, tum vero insidias rati esse, cum maiore tumultu concitant se in fugam. levi quoque armaturae hostium incurere; ceterum nox aequato timore neutros pugnam incipientis ad lucem tenuit. interea toto agmine Hannibal transducto per saltum et quibusdam in ipso saltu hostium oppressis in agro Allifano posuit castra.

C. Terentio Varroni, quem sui generis hominem, plebi insectatione principum popularibusque artibus conciliatum, ab Q. Fabi opibus et dictatorio imperio concusso aliena invidia splendentem, vulgus et extrahere ad consulatum nitebatur, patres summa ope obstabant, ne se insectando sibi aequari adsuescerent homines.

Spoliis ad multum diei lectis Hannibal ad minora ducit castra oppugnanda, et omnium primum brachio obiecto flumine eos excludit. ceterum ab omnibus labore vigiliis vulneribus etiam fessis maturior ipsius spe deditio est facta. pacti, ut arma atque equos traderent, in capita Romana trecentis nummis quadrigatis, in socios ducentis, in servos centenis, et ut eo pretio persoluto cum singulis abirent vestimentis, in castra hostis acceperunt, traditique in custodiam omnes sunt, seorsum cives sociique.

Feminas quoque metus ac necessitas in foro turbae virorum inmiscuerat. senatus submotis arbitris consuli coeptus. ibi cum sententiis variaretur, et alii redimendos de publico, alii nullam publice impensam faciendam nec prohibendos ex privato redimi, si quibus argentum in praesentia deesset, dandam ex aerario pecuniam mutuum praedibusque ac praediis cavendum populo censerent, tum T. Manlius Torquatus, priscae ac nimis durae, ut plerisque videatur, severitatis, interrogatus sententiam ita locutus fertur.

Give a translation and explanation when necessary of the expressions—

Resolutis oris in ancoras evehuntur

Aestivos saltus
Favore superante
Punctim caesim
Quadrigatos
Ex formula

Give the principal parts of the verbs—

Exsulo, perdeo, veneo, liceor, fido, placo.

Translate and explain the use of the moods in the following sentences—

Consilium non reprehendo, non quin ab eo dissentiam, sed, &c.

Mater irata est quia non redierim.

Multa sunt quae dici possunt.

The Impersonal Gerundive construction may govern any case but the accusative. Illustrate this rule, and mention any exceptions to it.

What is the rule for the use of nostrum, vestrum, nostri, vestri respectively?

What are the limitations to the use of the Ablative in comparisons instead of *quam*?

Translate—

Sub adventum praetoris Romani Poenus agro Nolano excessit et ad mare proxime Neapolim descendit, cupidus maritimi oppidi potiundi, quo cursus navibus tutus ex Africa esset. ceterum postquam Neapolim a praefecto Romano teneri accepit—M. Iunius Silanus erat ab ipsis Neapolitanis accitus—, Neapoli quoque sicut Nola omissa petit Nuceriam. eam cum aliquamdiu circumsedisset, saepe vi, saepe sollicitandis nequiquam nunc plebe, nunc principibus, fame demum in deditionem accepit, pactus, ut inermes cum singulis abirent vestimentis.

Translate into Latin Prose—

When the consuls found themselves blockaded their spirits fell, and they again sent an urgent message to Hannibal. In an assault upon the Roman lines he was beaten off with loss. And now only one hope remained. It was possible that if he threatened Rome itself the besieging army might be recalled to defend the Capital. Accordingly he sent the Capuans notice of his purpose, by means of a pretended deserter, and the next morning saw his camp on Mount Tifata empty.

DIVISION A.

3. GREEK.

PROFESSOR KELLY, M.A.

Time—Three hours.

Translate—

πῶς δ' οὐκ ἀρίστη; τίς δ' ἐναντιώσεται;
τί χρῆ γενέσθαι τὴν ὑπερβεβλημένην
γυναικα; πῶς δ' ἂν μᾶλλον ἐνδείξαιτό τις
πόσιν προτιμῶσ' ἢ θέλουσ' ὑπερθανεῖν;
καὶ ταῦτα μὲν δὴ πᾶσ' ἐπίσταται πόλις.
ἃ δ' ἐν δόμοις ἔδρασε θαυμάσει κλύων.
ἐπεὶ γὰρ ἦσθεθ' ἡμέραν τὴν κυρίαν
ἤκουσαν, ὕδασι ποταμίοις λευκὸν χροῶ
ἐλούσατ', ἐκ δ' ἐλοῦσα κεδρίνων δόμων
ἔσθητα κόσμον τ' εὐπρεπῶς ἠσκήσατο,
καὶ στᾶσα πρόσθεν ἐστίας κατεύξατο,
δέσποιν', ἐγὼ γὰρ ἔρχομαι κατὰ χθονός,
πανύστατόν σε προσπίτνουσ' αἰτήσομαι,
τέκν' ὄρφανεύσαι τὰμά, καὶ τῷ μὲν φίλην
σύζευξον ἄλοχον, τῇ δὲ γενναῖον πόσιν.

Parse each of the verbs in this passage, and give the accurate meaning and principal parts of each.

Also—

ὦ πολύξεινος καὶ ἐλεύθερος ἀνδρὸς αἰεὶ ποτ'
οἶκος, στρ. ἄ.
σέ τοι καὶ ὁ Πύθιος εὐλύρας Ἄπολλων
ἠξίωσε ναίειν,
ἔτλα δὲ σοῖσι μηλονόμας
ἐν δόμοις γενέσθαι,
δοχμῶν διὰ κλιτύων
βοσκήμασι σοῖσι συρίζων
ποιμνίτας ὑμεναίους.
σὺν δ' ἐποιμαίνοντο χαρᾷ μελέων βαλῖαι τε
λύγκες, ἀντ. ἄ.
ἔβα δὲ λιποῦσ' Ὀθρυος νάπαν λεόντων
ἃ δαφινὸν ἴλα·

What is meant by the words *στροφή* and *ἀντιστροφή* as used in Greek plays? How many actors usually were required, and what were their distinctive names?

Also—

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φίλον πρὸς ἄνδρα χρὴ λέγειν ἐλευθέρως,
 "Ἄδμητε, μομφὰς δ' οὐχ ὑπὸ σπλάγχνοις ἔχειν
 σιγῶντ'. ἐγὼ δὲ σοῖς κακοῖσιν ἠξίουν
 ἐγγύς παρεστὼς ἐξετάζεσθαι φίλος·
 σὺ δ' οὐκ ἔφραζες σῆς προκείμενον νέκυν
 γυναικός ἀλλὰ μ' ἐξένιζες ἐν δόμοις,
 ὡς δὴ θυραῖον πῆματος σπουδὴν ἔχων.
 κᾶσπεψα κρᾶτα καὶ θεοῖς ἐλειψάμην
 σπονδὰς ἐν οἴκοις δυστυχοῦσι τοῖσι σοῖς
 καὶ μέμφομαι μὲν μέμφομαι παθὼν τάδε,
 οὐ μὴν σε λυπεῖν ἐν κακοῖσι βούλομαι.
 ὦν δ' οὐνεχ' ἦκω δευρ' ὑποστρέψας πάλιν
 λέξω. γυναικα τήνδε μοι σώσον λαβῶν,
 ἕως ἂν ἵππους δεῦρο Ὀρηκίας ἄγων
 ἔλθω τύραννον Βιστόνων κατακτανών.

Write notes on the words *νικητήρια*, *ἄνωχθι*,
στρωφωμένη, *μετάρσιος*.

Write out in full the Indicative Perfect Passive of the verbs
φαίνω, *τρέπω*, *τιμάω*, *στέλλω*.

Give the moods of the 1st Aorist Active of *σημαίνω*, *ἀγγέλλω*,
 and write out in full the Optative Present of *εἰμί*, *εἴμι*,
ἴημι, *φήμι*.

State briefly the principal general laws for the accentuation
 of Greek words. What is meant by *enclitic* and *atonic*?
 Give the names of the different accents and their meaning.

Mention as many as you can of the different forces of the
 Middle Voice of the Greek verb, and illustrate your
 statements in the case of the verbs *ἀγγέλλω*, *συμβουλεῖω*,
γαμέω, *διδάσκω*, *τίθημι*.

With what portions of the verb is the particle *ἄν* never
 used? Show by instances its effect when used with
 Present and Aorist tenses of Subjunctive and Optative
 moods.

Translate—

ὦ πρέσβυ, θεοί σοι δοῖεν εἶδ' καὶ τοῖσι σοῖς,
 σώσαντι παῖδα καμὲ τὴν δυσδαίμονα.
 ὄρα δὲ μὴ νῶν εἰς ἐρημίαν ἔδοῦ
 πτήξαντες οἶδε πρὸς βίαν ἄγωσὶ με,
 γέροντα μὲν σ' ὀρώντες, ἀσθενῆ δ' ἐμέ,
 καὶ παῖδα τόνδε νήπιον· σκόπει τάδε,
 μὴ νῦν φυγόντες εἴθ' ἀλώμεν ὑστερον,

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Translate into Greek Prose—

And I have the following proof to show that I am not telling a lie in the matter of the God; that though I have often announced to my friends the advice received by me from the gods I have never once been shown to have told a lie. Now, the judges on hearing this created an uproar, some not believing his statements, while others felt jealous at the idea of (*φθονεῖν εἰ* with opt.) his getting any more from the gods than they did themselves.

DIVISION A.

4. FRENCH.

EMIL J. TRECHMANN, B.A. (Oxon.), Ph.D., (Heidelberg).

Time—Three hours.

PART I.

I, Translate—

- (a) “Non, messieurs, disoit-il, je ne me *dédis* point, Et tomberai d'accord de tout hors de ce point. De quoi s'offense-t-il ? et que veut-il me dire ? Y va-t-il de sa gloire à ne pas bien écrire ? Que lui fait mon avis qu'il a pris de travers ? On peut être honnête homme, et faire mal des vers : Ce n'est point à l'honneur que touchent ces matières. Je le tiens galant homme en toutes les manières, Homme de qualité, de mérite et de cœur, Tout ce qu'il *vous* plaira, mais fort méchant auteur. Je louerai, si l'on veut, son train et sa dépense, Son adresse à cheval, aux armes, à la danse ; Mais pour louer ses vers, je suis son serviteur ; Et, lorsque d'en mieux faire on n'a pas le *bonheur*, On ne doit de rimer avoir aucune envie, Qu'on n'y soit condamné sur peine de la vie.”

—Misanthrope, Act iv., Sc. 1.

- (b) O l'ennuyeux conteur !
Jamais on ne le voit sortir du grand seigneur.
Dans le brillant commerce il se mêle sans cesse,
Et ne cite jamais que duc, prince ou princesse.

La qualité l'entête ; et tous ses entretiens
 Ne sont que de chevaux, d'équipage et de chiens :
 Il tutaye, en parlant, ceux du plus haut étage,
 Et le nom de monsieur est chez lui hors d'usage.

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—Misanthrope, Act ii., Sc. 5.

II. Translate—

- (a) “Oui, je l'ai entendu dire ; mais vous n'en avez pas été bien fâché, je gage ; histoire de régler votre compte à vous. Allons, curé,” dit le bandit à son camarade, “à table. Monsieur Orso, je vous présente monsieur le curé, c'est à dire, je ne sais pas trop s'il est curé, mais il en a la science.”

“Un pauvre étudiant en théologie, monsieur,” dit le second bandit, “qu'on a empêché de suivre sa vocation. Qui sait ? J'aurais pu être pape, Brandolaccio.”

“Quelle cause a donc privé l'Eglise de vos lumières ?” demanda Orso.

“Un rien, un compte à régler, comme dit mon ami Brandolaccio, une sœur à moi qui avait fait des folies pendant que je dévorais les bouquins à l'université de Pise. Il me fallut retourner au pays pour la marier. Mais le futur, trop pressé, meurt de la fièvre trois jours avant mon arrivée. Je m'adresse alors, comme vous eussiez fait à ma place, au frère du défunt. On me dit qu'il était marié. Que faire ?”

—Colomba.

- (b) A ces mots le jeune homme, se laissant aller à la renverse, se mit à rire de plus belle, et de si bonne grâce, que le patron et ses deux matelots éclatèrent en cœur.

—Colomba.

- (c) Au mâquis brûlé succédaient plusieurs champs en culture, enclos, selon l'usage du pays, de murs en pierres sèches à hauteur d'appui. Le sentier passait entre ces enclos, où d'énormes *châtaigniers*, plantés confusément, présentaient de loin l'apparence d'un bois touffu.

—Colomba.

III. Grammar—

- (1) *Dédis*. Give the five principal parts of this verb, and conjugate it in the Present and Preterite indicative, pointing out wherein its conjugation differs from that of *dire*.

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- (2) *Vous*. Parse this word.
- (3) *Bonheur*. Mention other words in *-eur*, denoting abstract qualities which are masculine. Explain their gender with reference to their Latin origin.
- (4) *Régler*. Conjugate this verb in the Present and Future tenses of the Indicative.
- (5) *Châtaigniers*. What is the force of the suffix *-ier*? Mention other words having the same suffix.

IV. History—

(*Not more than two questions to be answered.*)

- (1) Write what you know about the invasion of North France or Gaul by the Normans.
- (2) What additions did Lewis XI. make to the kingdom of France? Sketch the character of that monarch.
- (3) Who were the prime instigators of the Massacre of St. Bartholomew? Mention the details of that sad event.
- (4) What was the War of the Spanish Succession?
- (5) Who were Necker, Mirabeau, Lafayette? In what way were they connected with the Great Revolution?

PART II.

V. Translate—

Le quatre mai le temps était horrible, car c'était la mauvaise saison à Sainte-Hélène. Des rafales de vent et de pluie déracinèrent quelques-uns des arbres récemment plantés. Enfin le cinq mai, on ne douta plus que le dernier jour de cette existence extraordinaire ne fût arrivé. Tous les serviteurs de Napoléon, agenouillés autour de son lit, épiaient les dernières lueurs de la vie. Malheureusement ces dernières lueurs étaient des signes de cruelles souffrances. Les officiers anglais placés à l'extérieur recueillaient avec un intérêt respectueux ce que les domestiques leur apprenaient des progrès de l'agonie. Vers la fin du jour, la douleur s'affaissant avec la vie, le refroidissement devenant général, la mort sembla s'emparer de sa glorieuse victime. Ce jour-là, le temps était redevenu calme et serein. A cinq heures quarante minutes, juste au moment où le soleil se couchait dans des flots de lumière, alors que le canon anglais donnait le signal de la retraite, les nombreux témoins qui observaient le mourant s'aperçurent qu'il ne

respirait plus, et s'écrièrent qu'il était mort. Aux convulsions de l'agonie, toujours si pénibles à voir, avait succédé un calme plein de majesté.

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—Thiers.

VI. Translate into French—

Around the oak-tree and the fountain there is an open space called the "square," where the idlers assemble in the evenings. There they sometimes play at cards, and once a year, in carnival time, they dance there. At the two extremities of the square there rise up some buildings whose height is greater than their breadth, built of granite and schist. These are the hostile "towers" of the [families of] della Rebbia and Barracini. Their architecture is uniform, their height is equal, and one sees that the rivalry of the two houses has been kept alive without fortune deciding between them.

(*N.B.—The words in brackets are not to be translated.*)

VII. Translate into French—

- (1) I am going to leave Paris this evening at 8 o'clock.
- (2) I have cut my finger.
- (3) The more I look at you, the more I like you.
- (4) We fear that the news is true.

DIVISION A.

5. GERMAN.

EMIL J. TRECHMANN, B.A. (Oxon.), Ph.D. (Heidelberg).

Time—Three hours.

[*N.B.—Candidates may write either in German or in English characters.*]

PART I.

I. Translate—

- (a.) Es seht
 Der schlechteste deines Volkes Gut und Blut
 In seine Meinung, seinen Haß und Liebe;
 Partei wird Alles, wenn das blut'ge Zeichen
 Des Bürgerkrieges ausgehangen ist.
 Der Ackermann verläßt den Pflug, das Weib
 Den Rocken, Kinder, Greise waffnen sich,

Der Bürger zündet seine Stadt, der Landmann
Mit eignen Händen, seine Saaten an,
Um dir zu schaden oder wohl zu thun
Und seines Herzens Wollen zu behaupten.

Schiller: Jungfrau von Orleans, Act I., Scene V.

- (b.) Unsinn, du siegst, und ich muß untergehn!
Mit der Dummheit kämpfen Götter selbst vergebens.
Erhabene Vernunft, lichte Töchter
Des göttlichen Hauptes, weiße Gründerin
Des Weltgebäudes, Führerin der Sterne,
Wer bist du denn, wenn du, dem tollen Roß
Des Überwizes an den Schweif gebunden,
Ohnmächtig rufend, mit dem Trunkenen
Dich sehend in den Abgrund stürzen mußt!
Verlucht sei, wer sein Leben an das Große
Und Würd'ge wendet und bedachte Pläne
Mit weisem Geist entwirft! Dem Narrenkönig
Gehört die Welt. —

Ibid: Act III., Scene VI.

II. Translate:—

(a.) Setzt wo der Knabe den entschiedensten Gang zu Naturwissenschaften an den Tag legte, ward er ernstlich beschäftigt und für eine der höheren Classen der städtischen Schulen vorbereitet. Sein fester Wille arbeitete sich rastlos durch, und seine guten Anlagen halfen ihm, in überraschend kurzer Zeit seinen Jahren nachzukommen und das Versäumte einzubringen. Manche Stunde saß er denn auch wohl mit einem Buch in des Küsters's Garten. Aber es war doch an kein Geplauder zu denken, wie sonst, und Marlene fühlte wohl, daß sie jetzt zwiefach entbehre, den Unterricht und ihren Freund.

(b.) „Dem Alten will ich zuerst die Wahrheit sagen,“ unterbrach ihn Justine heftig, „jetzt gleich, sonst drückt es mir das Herz ab. Es ist kein Auskommen mehr mit ihm. Roß und Mann fürchten sich vor seinem grimmigem Gesichte, nur ich nicht; ich will ihn fragen, warum er des Kindes Glück stört. Er thut mir jetzt alle Tage gebranntes Herzeleid an, ich denke dann: rede du, spotte du, du hast deine Sorgen und bist am schlimmsten dran. Wenn er aber die Kinder angreift, bricht er mir das Herz, und da muß ich ihm in's Gewissen reden.“

III. Grammar:—

- (1). Decline in both numbers: weiße Gründerin; das göttliche Haupt; sein grimmigtes Gesicht.
- (2). Put down the first person singular of the past (imperfect) tense indicative of the verbs: ausgegangen, entwirft, angreift, denke, thun, untergehn, einbringen.
- (3). Give the different tenses of the Indicative mood Passive of fragen (in the first person singular only).

(4). Put down the uninflected form of the Positive of höher, and the comparative and superlative of fürz and wohl.

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(5). Ward er vorbereitet. What tense is this? Explain the difference in meaning between er wurde vorbereitet and er war vorbereitet.

IV. History:—

(Not more than two questions to be attempted).

(1). Give some account of the government of Charles the Great (Charlemagne) and the changes introduced by him.

(2). What were the terms of the Peace of Westphalia? Describe the condition of Germany after the Thirty Years' War.

(3). Give a short sketch of the progress of the Seven Years' War.

(4). Say what you know about (a) John Huss, (b) Franz von Sickingen, or (c) Andreas Hofer.

PART II.

V. Translate:—

Nie hat jemand sanfter geschlafen als der Schulmeister. Sein inniges Vergnügen weckte ihn des Morgens früher als sonst. Er stand auf, ging hinaus in den Wald, und erneuerte alle seine heiligen Vorsätze, die er je in seinem Leben sich vorgenommen hatte. Um sieben Uhr ging er wieder nach Haus und aß mit seinen Eltern und Schwestern die süße Milchsuppe und sein Butterbrot. Nachdem sich nun der Vater zuerst, hernach auch der Sohn den Bart abgemacht, die Mutter aber mit den Töchtern sich berathschlaget, wer unter ihnen zu Hause bleiben und wer in die Kirche gehen sollte, so zog man sich an. Dieses alles war in einer halben Stunde geschehen; sodann gingen die Töchter vor, darnach Wilhelm, und zu hinterst der Vater mit seinem dicken Dornenstocke. Wenn der alte Stilling mit seinen Kindern ausging, so mußten sie allemal vor ihm gehen, damit er, wie er zu sagen pflegte, den Gang und die Sitten seiner Kinder sehen und sie zur Ehrbarkeit anhalten könnte.

(Heinrich Stilling's Jugend.)

VI. Translate into German:—

At a late hour, when the moon was already rising above the forest, a timid child's hand knocked at the door of the parsonage. It was the little girls of the village who had brought a wreath for Marlene, made of the best flowers out of their gardens, and a nosegay for Clemens.

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When it was brought to the boy, his face *lit up* (*sich verflären*). The fragrance and the dew refreshed him. He begged that they would give his best thanks to them and tell them they were good girls; he was still sick, but when he should be allowed to see again, he would take their part against the boys. Marlene, when they put the wreath upon her bed, gently pushed it aside with her pale little hand and said: "I cannot, I am giddy, mother, when I feel the flowers near me. Bring them too to Clemens."

VII. Translate into German :—

- (1). When I go to Germany, I always visit Berlin.
- (2). When I was at Frankfort, I saw Goethe's house.
- (3). When did you read Schiller's Wallenstein?
- (4). As I did not understand him, I asked him to repeat his question.

ITALIAN.

No Candidates.

DIVISION B.

7. PURE MATHEMATICS I.

PROFESSOR BRAGG, M.A.

Time—Three hours.

[*In order to pass in this paper it is only necessary to satisfy the Examiners in Parts I. and II. taken together; but Candidates who wish to obtain a credit are advised to attempt also the questions in Part III., for they carry as a rule more marks than the others, and to omit those in Part I., at any rate until they have done what they can of the rest of the paper.*]

PART I.

- I. The net earnings of a certain business, after paying for working expenses, which amount to 9 per cent. of the gross earnings, and after putting aside as a reserve fund one-seventh of the remainder, amount to £770 5s. What are the gross earnings?
- II. Simplify the expression—

$$\frac{x^3 - 2x^2 + 3x - 6}{x^3 + 6x^2 - x - 6} \div \frac{x^3 - 2x^2 - 5x - 6}{x^3 + 8x^2 + 13x + 6}$$

and find its value when $x = \cdot 5$.

III. Show that if 6 be taken from the product of three consecutive numbers, the result is divisible by that number which is less by 1 than the least of the three.

IV. If $ax + \frac{y}{a^2}$ is equal to 227 when $a = \frac{1}{3}$, and is equal to 31 where a is equal to 5; find the values of x and y .

PART II.

V. How many square feet of sheet metal will be wanted to construct a cylindrical tank, not covered at the top, 5 feet high and 4 feet in diameter, and how much water will it hold when it is finished?

VI. Show that the value of

$$\frac{ac(a^2 - c^2) + cb(c^2 - b^2) + ba(b^2 - a^2)}{a + b + c}$$

is not affected by increasing the values of a , b , and c , so long as they are all increased by the same amount.

VII. Show that if a , β be the roots of the equation $x^2 + px + q = 0$ then $-p = a + \beta$ and $q = a\beta$.

Hence find the equation whose roots are $\sqrt{a\beta}$ and $\frac{a\beta}{a + \beta}$, the co-efficients being expressed in terms of p and q .

VIII. Solve the equations—

$$(i.) \quad x = (y + .76) \times .087$$

$$x = (y + 10.76) \times .035$$

giving the values of x and y correct to two places of decimals.

$$(ii.) \quad x + y = z$$

$$y = zx$$

$$\frac{x^2}{z^2} = \frac{1}{2(1+z)}$$

IX. The current in a certain stream is a mile an hour quicker in the middle than it is at the side. A man, rowing always at the same rate relatively to the water, takes his boat three miles up the stream, keeping to the side, and brings it back, keeping to the centre. In this way he takes 36 minutes less than if he had gone up the centre and come down the side. The rate at which he rows is twice that of the current in the centre of the stream. Find both these last-mentioned velocities.

PART III.

- X. If $\frac{a}{b} = \frac{c}{d} = \frac{e}{f}$, show that $\frac{a^2 + c^2 + e^2}{b^2 + d^2 + f^2} = \sqrt{\frac{a^4 + 2e^4}{b^4 + 2f^4}}$
- XI. The number of vibrations per second made by a stretched string vary inversely as its length and directly as the square root of the tension. A string 4 feet long makes under a certain tension 200 vibrations per second. If the string be altered in length to 5 feet, how must the tension be altered so that the string may make 300 vibrations per second ?
- XII. Write down the expansion of $(a^{\frac{1}{2}} + b^{\frac{1}{2}})^6$; and the co-efficient of x^3 in the expansion of $(a + bx + cx^2)(1 - 2x^2)^{13}$.
- XIII. Find the values of the sine and cosine of an angle of 60° .
Show that $\sin^4\alpha - \sin^6\alpha = \sin^2\alpha\cos^2\alpha + \cos^6\alpha - \cos^4\alpha$.
- XIV. If $A + B = 60^\circ$ and if $\cos\frac{A}{2} = 2\sin\frac{B}{2}$, find the values of $\sin A$ and $\sin B$.

DIVISION B.

7. PURE MATHEMATICS II.

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

In order to pass in this Paper, it is only necessary to satisfy the Examiners in Parts I. and II., taken together; but candidates who wish to obtain a credit are advised to attempt the questions in Part III., and to omit those in Part I.—at any rate until they have done what they can of the rest of the paper, for the questions in Part III. carry, as a rule, more marks than the others.

Candidates are required to be clear in their statements and accurate in their reasoning; any symbols which conduce to clearness may be used. When use is made of the result of a preceding proposition, the fact should be stated, but the number of the proposition need not be given.

PART I.

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- I. Prove that any two angles of a triangle are less than two right angles.

Hence show that any four angles of a five-sided rectilinear figure are less than six right angles.

- II. Parallelograms on equal bases and between the same parallels are equal.

Through the middle point of a diagonal of a parallelogram $ABCD$, a straight line is drawn parallel to AB . Show that it bisects the parallelogram.

- III. Divide a given straight line into two parts, so that the rectangle contained by the whole line and one part may be equal to the square on the other part.

- IV. Prove that the angles in the same segment of a circle are equal.

Hence show that if two triangles be drawn on the same base and on the same side of it, the vertical angles of the triangles being equal to one another, that a circle can be described passing through the vertices of the triangles and the extremities of the base.

PART II.

- V. If a straight line cutting two other straight lines make the alternate angles equal to one another, prove that these two straight lines must be parallel.

The opposite angles of a quadrilateral figure are equal to one another: show that the figure must be a parallelogram.

- VI. Two circles intersect one another, and a point is taken in the common chord produced; from this point two tangents are drawn to each of the circles. Show that a circle can be drawn to pass through the four points of contact.

- VII. Describe a circle about a given regular hexagon.

PART III.

- VIII. If a straight line be drawn parallel to one of the sides of a triangle, it cuts the other sides, or those sides produced, proportionally.

Two triangles are placed upon equal bases and between the same parallels; a third parallel straight line is drawn

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cutting the triangles. Prove that the two smaller triangles thus cut off are equal to one another.

- IX. If two straight lines are at right angles to the same plane, they are parallel to one another.
- X. Express $\tan \theta$, $\cos \theta$, $\sin \theta$, in terms of $\sec \theta$. Find $\cot \theta$, having given that $\sin \theta = \frac{3}{7}$.
- XI. What are the logarithms of 125 , $\frac{1}{5}$, 1 , $\sqrt{5}$, to the base 5 ?

$$\text{Prove (1) } x^{\log_a y} = y^{\log_a x}$$

$$(2) \log_a \frac{x}{y} = \log_a x - \log_a y$$

- XII. The sides a , b , and angle B of a triangle are given. Explain under what circumstances the solution of this triangle is ambiguous, illustrating your answer geometrically.

DIVISION B.

8. APPLIED MATHEMATICS.

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

- I. Explain the "parallelogram of forces."

A telegraph pole at the corner of two cross roads has two wires attached to it, one leading north from the pole, and the other west. Supposing that the pull exerted by each wire is equal to the weight of 150 lbs., find the resultant pull acting upon the post, and also the direction in which it acts.

- II. Define the moment of a force with respect to a point in its own plane, and show how it may be represented geometrically.

A cubical block of granite, the length of one side being four feet, is subjected to a horizontal pull by means of a chain passed round it 6 inches from the top. The block is lying on a rough horizontal plane. Given that the weight of granite is 170 lbs. per cub. ft., find the pull which must be exerted by the chain so as just to overturn the block,

- III. Find the position of the centre of gravity of a triangular sheet of paper.

A uniform rod whose weight is 3 lbs. and length 4 ft., is weighted at one end with a piece of lead weighing 1 lb. Find the point at which it must be supported, so as to balance horizontally.

- IV. A train, whose total weight is 120 tons, is running along a level line of railway with a velocity of 30 miles per hour, when steam is shut off. The average resistance to the motion of the train due to friction, etc., being equivalent to a force of 1,200 lbs. weight, find how far the train will run before it comes to a standstill.

- V. Explain the terms "momentum" and "impulse."

A pile is driven by blows, caused by a weight of 18 cwt. falling a distance of 10 ft. If the weight is increased to 25 cwt., through what height must it be allowed to fall so as to give an equivalent blow?

- VI. Show, geometrically or otherwise, that if a body be allowed to fall under the influence of gravity for t seconds, if s be the space described

$$s = \frac{1}{2} g t^2.$$

- VII. The apparent weight of a piece of metal when immersed in alcohol is 5 grms., and in olive oil 4 grms. It is then immersed in some sea-water, and found to weigh 2.9 grms. Having given that the specific gravity of alcohol is .81, and of olive oil .91, find the specific gravity of the sea-water.

- VIII. Explain the conditions of equilibrium of a floating body.

A cylinder of wood 6 inches high floats vertically in one liquid with 1 in. of its axis above the surface, and in another liquid with two inches above the surface. Compare the densities of the two liquids.

- IX. State the relations which exist between the pressure and volume of a gas when the temperature is constant, and between the pressure and temperature when the volume is constant.

The height of a barometer when the tube is held upright is 30 inches. If the tube were tilted to make an angle of 60° with the vertical, what would be the length of the mercury column in the tube?

DIVISION B.

9. CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

(*N.B.*—Candidates are expected to write formulæ and equations wherever possible.)

- I. Divide the elements represented by the symbols *Cl, O, Br, S, N, I, P, C, As, Si, Sb* into groups or families, giving your reasons in each case.
- II. How would you prepare a solution of hydrochloric acid? Can a solution of hydrobromic acid be prepared in a similar way? Give reasons for your answer.
- III. State what you understand by the terms *acid, base, allotropic, deliquescent, efflorescent, anhydrous*; illustrating your answers by examples.
- IV. What property of carbon renders it so valuable in metallurgical operations? Illustrate by examples, and name three other substances which possess a similar property under suitable conditions, giving instances of their action.
- V. Write down the general characteristics of the alkaline metals, and state in what respects the principal compounds of these metals differ from those of the alkaline earth metals.
- VI. You are given intimate mixtures of (*a*) sand and iodine; (*b*) silver and gold dust; (*c*) zinc and copper filings; (*d*) mercuric chloride and sodium chloride;—how would you separate the constituents in each case?
- VII. Given an alloy of silver and lead, how would you get rid of all the lead and leave the silver clean, without the use of acid?
- VIII. Describe the action of (*a*) boiling strong hydrochloric acid; (*b*) strong nitric acid on metallic tin. To the liquid obtained in the first case, a solution of mercuric chloride is added; what happens?

- IX. A specific gravity bottle holds 50 grammes of water at 15°C , and 43.49 grammes of turpentine at the same temperature. When 10 grammes of cement are put into the bottle, and it is then filled up with turpentine, the total contents of the bottle weigh 50.75 grammes. Find the specific gravity of the turpentine and of the cement.

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10. EXPERIMENTAL PHYSICS.

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

- I. Explain the effect of alterations in the density and temperature of the air upon the velocity of sound.
- II. Explain the terms "specific heat" and "latent heat." Describe a method of determining the specific heat of mercury.
- III. Describe some method by which the mechanical equivalent of heat has been measured.
If the source of heat in a heat engine is at a temperature $a^{\circ}\text{C}$, and the refrigerator at a temperature $b^{\circ}\text{C}$, what proportion of the heat passing through the engine is it theoretically possible to convert into mechanical energy?
- IV. A shilling is placed in the bottom of a shallow glass vessel containing water; if this be held a little above the level of the eye, an image of the shilling is seen apparently reflected from the surface of the water, but if the glass vessel is lifted higher still, the image disappears. Explain this, and show the bearing of the experiment upon the phenomenon known as mirage.
- V. Give a general description of the spectroscope, and explain the difference between the spectrum of a solid body and the spectrum of a gas.

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- VI. State what you know about phosphorescence and fluorescence.
- VII. Describe the Leyden jar, explain its action, and give a general description of the method by which Wheatstone measured the time occupied by the discharge.
- VIII. A coil of insulated wire is connected with a galvanometer, and a powerful magnet is quickly inserted into the coil, and after a time suddenly withdrawn. Describe the effects noticed. How do you reconcile these effects with the doctrine of the conservation of energy?
- IX. Two Grove's cells are used to send an electric current through an external resistance which is five times that of one cell. Compare the currents obtained under the two possible arrangements of the cells.
- X. Give a general description of the telephone.

DIVISION B.

II. (A) BOTANY.

PROFESSOR RALPH TATE.

Time—Two hours.

- I. Compare the seed of the Oat with that of the Bean.
- II. Explain the terms *albuminous* and *exalbuminous*, and mention some seeds of each.
- III. Explain as much as you can of the structure of a Potato. Why is it considered to be a stem?
- IV. Explain the terms *polygamous*, *dioëcious*, *gynandrous*, *synantherous*, *monœcious*.
- V. Mention some plants whose flowers contain nectar. What is its use?
- VI. What are the characters of the two classes of flowering plants.
- VII. Explain the terms *epicarp*, *mesocarp*, and *endocarp*.

DIVISION B.

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II. (B) PHYSIOLOGY.

E. C. STIRLING, M.A., M.D.

Time—Two hours.

- I. What is the Thoracic duct ; how does it begin and end ? Describe the nature of its contents.
 - II. Describe the structure of the capillary blood vessels. What happens to the blood during its passage through the capillaries of the body ?
 - III. Classify the different kinds of food-stuffs, and refer to each class the various articles of an ordinary meal—say of your last dinner.
 - IV. A crumb in the wind-pipe usually causes a fit of coughing ; what is the sequence of events that has probably occurred ? Draw a parallel between the cough so caused and the usual effect of a pinch of snuff.
 - V. Short sighted people generally require spectacles for seeing things at a distance. Explain, *with a diagram*, the usual cause of this defect of vision, and state what kind of spectacles such persons require.
-

12. PHYSICAL GEOGRAPHY AND GEOLOGY.

PROFESSOR RALPH TATE, F.L.S., F.G.S.

Time—Three hours.

- I. What are *Sand-dunes*, and how are they formed ?
- II. Explain the origin of a *River-delta*. Mention four well-known *deltas*.
- III. Describe the action of the different forces concerned in the wearing away of a coast line.
- IV. Describe the origin and progress of a glacier.
- V. Explain how a *conglomerate* was formed.

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- VI. Draw a section illustrating *unconformable stratification*, and a *fault* which affects only the older beds.
- VII. How may you readily distinguish a limestone?
- VIII. Account for the presence of solid matter in solution in river-waters.
- IX. What are the evidences by which it is ascertained that the level of the land and the sea is undergoing change?
- X. Name the accompanying rocks.

ANNUAL REPORT FOR THE YEAR 1889.

To His Excellency the RIGHT HONORABLE THE EARL OF KINTORE, M.A., LL.D., Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George, and Commander-in-Chief in and over the Province of South Australia and the Dependencies thereof, &c., &c., &c.

The Council of the University of Adelaide have the honour to present to your Excellency the following Report of the Proceedings of the University during the year 1889.

I. DEATH OF MR. WILLIAM EVERARD.

The Council desire to record their regret at the death of Mr. William Everard, who had been a member of the Council from the establishment of the University to the day of his death. Mr. Everard has shown his desire to perpetuate the recollection of his connection with the University by bequeathing the sum of £1,000 for the purpose of founding a Medical Scholarship to bear his name.

II. RE-ELECTION OF THE VICE-CHANCELLOR.

On the 9th of November the office of Vice-Chancellor became vacant by expiration of tenure, and on the 29th of November the Council re-elected the Venerable Archdeacon Farr, M.A., LL.D., to be Vice-Chancellor.

III. CHANGES IN THE COUNCIL AND OFFICERS.

On the 28th of June, Edward William Hawker, LL.B., M.P., resigned his seat on the Council, and on the 24th of July the Senate elected James Henderson, B.A., to fill the vacancy.

A vacancy in the Council was occasioned by the death of Mr. William Everard on the 25th of August.

In November

The Venerable George Henry Farr, M.A., LL.D.,
 Adolph von Treuer, LL.B.,
 Edward Willis Way, M.B.,
 The Rev. David Paton, M.A., B.D., D.D.,
 Charles Todd, M.A., F.R.S., C.M.G.,

in conformity with the Provisions of the University Act, ceased to hold office as Members of the Council.

On the 27th of November the Senate elected the following gentlemen—

Charles Todd, M.A., F.R.S., C.M.G.,
 Adolph von Treuer, LL.B.,
 Edward Henry Rennie, M.A., D.Sc.,
 The Rev. David Paton, M.A., B.D., D.D.,
 William Austin Horn, M.P.,
 The Venerable George Henry Farr, M.A., LL.D.

Dr. Way did not seek re-election.

IV. THE SENATE.

The Senate, on the 24th July, elected Frederic Chapple, B.A., B.Sc. to be Warden. Thomas Ainslie Caterer, B.A. was appointed Clerk of the Senate.

V. ADMISSION TO DEGREES.

At a Congregation held on the 11th May, in the Town Hall, the following undergraduates were admitted to the Degree of Bachelor of Laws—

Eustace Giles.
 Thomas Hogarth Warren.

The undermentioned graduates of other Universities were at the same time admitted *ad eundem gradum*—

His Excellency the Right Honourable the Earl of Kintore,
 M.A., Cambridge,
 The Most Reverend Alfred Barry, D.C.L., Oxford,
 Frederick William Niesche, M.D., Edinburgh,
 Timothy Augustine Hynes, M.B., Edinburgh,
 Colin Arthur Fitzgerald Campbell, M.A., Cambridge,
 Allan Wells Kearney, M.A., Cambridge,
 Robert William Chapman, M.A., Melbourne,
 Charles Henry Standish Hope, B.A., Cambridge,
 Alfred Hughes, B.A., Cambridge,
 Douglas John Byard, B.A., Oxford,
 Edmund Lewis Heinemann, B.A., Oxford.

At the Commemoration held on the 18th December, in the Town Hall, the following gentlemen were admitted to Degrees—

David Henry Hollidge, B.A.	} To the Degree of M.A.
William Ernest Cooke, B.A.	
Edward Palmer Horn	} To the Degree of LL.B.
Rupert Ingleby	
Charles Henry Standish Hope	} To the Degree of M.B. and Ch.B.
Frederick Goldsmith	
Arthur Francis Augustine Lynch	
Cromwell Magarey	

Alfred Watkis Fletcher }
 Alexander Woodroffe Goyder } To the Degree of B.Sc.
 Frank Sandland Hone—To the Degree of B.A.
 Thomas Henry Jones—To the Degree of Mus.Bac.

The undermentioned Graduates of other Universities were at the same time admitted *ad eundem gradum* :—

His Excellency the Right Honorable the Earl of Kintore, LL.D., Aberdeen.

Archibald Cook Sutherland, M.A. Edinburgh.

VI. NEW REGULATIONS.

During the year the following new Regulations have been passed by the Council, approved by the Senate, and countersigned by Your Excellency :—

The Regulations of the Degree of Doctor of Medicine.

The Regulations of the Degree of Master of Surgery.

A new Regulation has been added to the Regulations of the Degree of Bachelor of Arts, and to the Regulations of the Degree of Bachelor of Science, for the purpose of enabling Students who have passed the First Year's Examination to transfer their studies from Arts to Science, or from Science to Arts, without being required to be re-examined in such subjects as are common to the two Examinations.

VII. ALTERATIONS IN REGULATIONS.

The Regulations of the Degree of Bachelor of Medicine, allowed on the 17th November, 1886, have been repealed, and new Regulations of the Degrees of Bachelor of Medicine and Bachelor of Surgery substituted. This change has been made in accordance with recent regulations of the General Medical Council of the United Kingdom, which now require that applicants for registration as Medical Practitioners shall hold both a Medical and Surgical qualification. The new Regulations are nearly identical with the old ones.

Slight alterations have been made in the Regulations for the Degree of Master of Arts.

VIII. NUMBER OF STUDENTS.

The number of undergraduates in the various courses is 118, and of non-graduating students 198.

IX. FACULTY OF LAWS.

Twelve students commenced the course for the LL.B. Degree ; six undergraduates completed the first, four the second, and three the third year's course. One Student obtained a certificate that

he had passed in the Law of Property ; two in the Law of Contracts ; four in Constitutional Law ; five in the Law of Wrongs ; and five in the Law of Procedure.

The total number of undergraduates studying for the LL.B. degree was thirty-two, and seven non-graduating students have been preparing for certificates to enable them to practise in the Supreme Court.

No Stow Prize has been awarded this year.

The Council on the 22nd of February appointed Thomas Hewitson, LL.B. to be Assistant Lecturer on the Law of Contracts and Alfred Gill, B.A., LL.B., to be Assistant Lecturer on the Law of Wrongs, Civil and Criminal.

X. FACULTY OF MEDICINE.

Five students commenced the course for the M.B. Degree ; four completed the first year's course ; one the second ; five the third ; two the fourth ; and four the fifth.

Thirty-two non-graduating students attended the course of lectures on Elementary Physiology, and one the lectures on Biology.

Sir Thomas Elder's annual prize in Physiology for students in Medicine was awarded to Henry Offley Irwin, and that for non-graduating students to Stella Howchin.

In consequence of the retirement of Edward Willis Way, M.B., one of the Lecturers on Clinical Medicine, the Council appointed William Thornborough Hayward, M.R.C.S., to the vacant office.

The University having requested the General Medical Council of the United Kingdom to recognize the substitution of the Senior Public Examination for the Matriculation Examination, and also to recognize the certificate of the Junior Public Examination, the General Medical Council replied that they approved the substitution of the Senior Public Examination for the Matriculation Examination, and that they were prepared to recognize the certificate of the Junior Public Examination provided that satisfactory proof were given that it included all the subjects required by the General Medical Council's regulations.

XI. THE FACULTY OF SCIENCE.

Nine Students commenced the course for the B.Sc. Degree ; five completed the first, five the second, and two the third year's course.

The number of non-graduating Students attending lectures in the different subjects was as follows :— Mathematics 12 ; Physics 86 ; Inorganic Chemistry 100 ; Organic Chemistry 4 ; and Geology 16.

The large increase of non-graduating students is principally due

to the establishment of the School of Mines. With a desire to promote the objects for which the School was founded the Council assented to the proposal that all regular students of that institution should be admitted to the University Classes at a reduction of one-third of the usual fees.

The Angas Engineering Scholarship was awarded to Clinton Coleridge Farr, B.Sc.

The Angas Engineering Exhibition was awarded to James Bernard Allen.

XII. THE FACULTY OF ARTS.

Two Students commenced the course for the B.A. Degree, and two completed the first, two the second, and one the third year's course.

The number of non-graduating Students attending Lectures in the different subjects was as follows:—English Language and Literature, 4; Latin, 2; Mental and Moral Science, 1; French, 10.

The University Scholarships were awarded to Agnes Marie Johanna Heyne, Walter James McCarthy, and Frederic John Chapple.

The John Howard Clark Scholarship for proficiency in English Literature was awarded to Frederick Stanley Butler.

The Whinham College Old Scholars' Association, desiring to perpetuate the name of the late Mr. John Whinham, have offered to establish an annual prize for the best essay on a subject selected from English History, to be called "The John Whinham Prize." The Council have provisionally accepted the offer, but have not yet settled the terms of competition.

XIII. THE BOARD OF MUSICAL STUDIES.

Eight Students commenced the course for the Mus. Bac. Degree; seven completed the first, one the second, and two the third year's course. The total number of graduating Students in Music was thirty.

The period of five years for which the Chair of Music was established expired on the 31st December, 1889. The success of the School of Music and the stimulus given by its establishment to the study of music have induced the Council to continue the Chair. This Chair was offered to and accepted by Professor Ives, on the same tenure as the other Professorships.

During the year Professor Ives delivered three lectures on Popular Music, Classical Music, and the Works of Richard Wagner. These lectures were held in the Library, and were largely attended.

Miss Rosa Lilian Harrison was nominated to the Commercial Travellers' Association Scholarship, and entered on the course for the Degree of Bachelor of Music.

XIV. THE EVENING CLASSES.

Evening Classes were established and lectures delivered on Advanced Mathematics, Physics, Practical Physics, Inorganic Chemistry, Practical Chemistry, Geology, and French.

In Appendix D will be found a table showing the subjects of the lectures, the names of the lecturers, the number of lectures delivered, and the number of students who attended during each term.

XV. HIGHER PUBLIC EXAMINATION.

Thirty-six candidates entered themselves for various subjects of the Higher Public Examination. The results are shown in Appendix C.

XVI. THE SENIOR PUBLIC EXAMINATION.

At the Special Senior Public Examination in March eight candidates entered, of whom four passed in the Third Class, and one candidate passed in Applied Mathematics.

At the Examination held in November eighty-four candidates entered. Nine passed in the First Class, sixteen in the Second, and thirty-one in the Third Class.

In Appendix F will be found the Class List.

XVII. JUNIOR PUBLIC EXAMINATION.

Seventy-one candidates entered for the Junior Public Examination, of whom five were examined at Mount Gambier. Eight passed in the First Class, eight in the Second, and twenty in the Third Class; and eighteen candidates passed, but were not classified, as they were over the prescribed age.

In Appendix G will be found the Class List.

XVIII. THE PRELIMINARY EXAMINATION.

At the Examination held in March thirty-seven candidates entered, of whom ten passed. Two hundred and fifty-eight candidates entered for the Preliminary Examination in September, of whom seven were examined at Mount Gambier. One hundred and forty-five passed.

In Appendix H will be found the names of those who passed.

XIX. PUBLIC EXAMINATIONS IN MUSIC.

Public Examinations in the *Theory* of Music were held this year at Adelaide, Caltowie, and Strathalbyn.

In the Junior Division one hundred and nine candidates entered; fifty-seven gained First Class Certificates, and thirty-three Second Class Certificates.

In the Senior Division twenty-four candidates entered; four gained First Class Certificates, and fifteen Second Class Certificates.

In the *Practice* of Music ninety-one candidates entered for the Junior Division. Twenty-nine obtained First Class Certificates, and forty-seven Second Class Certificates.

In the Senior Division of the *Practice* of Music thirty-nine candidates entered; ten obtained First Class Certificates, and twenty-three Second Class Certificates.

The Class Lists will be found in appendix E.

XX. CADETSHIP AT THE ROYAL MILITARY COLLEGE, SANDHURST.

No candidate presented himself for Examination.

XXI. REPRESENTATION OF THE UNIVERSITY ON THE BOARD OF GOVERNORS OF THE PUBLIC LIBRARY, MUSEUM AND ART GALLERY.

The meeting of the University, which was convened on the 25th of October, for the purpose of electing two members of the Board of Governors of the Public Library and Art Gallery of South Australia lapsed for want of a quorum. The election in consequence devolved upon the Council, who re-elected Professor Boulger, M.A., D. Litt and Horatio Thomas Whittell, M.D., to represent the University on the Board of Governors of the Public Library, Museum, and Art Gallery of South Australia.

XXII. REPRESENTATION OF THE UNIVERSITY ON THE BOARD OF MANAGEMENT OF THE ADELAIDE HOSPITAL.

Edward Willis Way, M.B., continued to represent the University on the Board of Management of the Adelaide Hospital.

XXIII. ACCOUNTS.

An abstract of the income and expenditure during the year 1889, duly audited, is annexed to this Report. There is also a further statement showing the actual position of the University with respect to its property, funds, and liabilities to the close of 1889.

Signed on behalf of the Council,

S. J. WAY,

Chancellor.

Adelaide, January, 1890.

APPENDIX A.

LIST OF STUDENTS WHO COMMENCED THE UNDER-GRADUATE COURSE.

	LL.B.	
Andrews, Richard Bullock	|	Heggaton, Horace John
Beare, Edwin Arthur	|	Oldham, Alfred Mulville
Benham, Edward Warner	|	Solomon, Judah Moss
Cole, Stephen Baldwin Sarmon	|	Stow, Francis Leslie
Fox, John Henry	|	Weinrich, Joseph Hermann
Gunson, William Joseph	|	Winnall, John Edward Hyde
	M.B.	
Corbin, Cecil	|	Russell, Alfred Edward James
Goode, Arthur	|	Sangster, John Iken
Irwin, Henry Offley	|	
	B.A.	
Heyne, Agnes Marie Johanna	|	McCarthy, Walter James
	B.Sc.	
Allen, James Bernard	|	Corbin, Hugh Burton
Benham, Constance Mary	|	Muecke, Dora Julia
Benham, Ellen Ida	|	Müller, Charlotte Mary
Chapple, Frederic John	|	Palleine, Robert Henry
Coleman, Frederick	|	
	MUS. BAC.	
Benny, Frances	|	Fray, John Hill
Best, Edwin	|	Hawkins, Fanny Susanna
Cawley, May Mary	|	Jury, Alice Emily
Campbell, Florence Way	|	Wyatt, Ethel Wyatt

The following Student entered for the purpose of obtaining a Certificate, but with no intention of proceeding to a Degree :—

M.B.
Harbison, James Alexander.

APPENDIX B.

CLASS LISTS.

ORDINARY EXAMINATION FOR THE DEGREE OF LL.B.,
MARCH, 1889.

The names in all classes are in alphabetical order.

	FIRST YEAR. FIRST CLASS.		THIRD CLASS.
None		Bonnin, Alfred	
	SECOND CLASS.	Gwynne, Iltyd Gordon	
Bloxam, Charles a'Court		Sabine, Ernest Maurice	
	THIRD CLASS.		THIRD YEAR.
Hourigan, Richard Edward			FIRST CLASS.
	SECOND YEAR.	None	
	FIRST CLASS.		SECOND CLASS.
None		None	
	SECOND CLASS.		THIRD CLASS.
None		Warren, Thomas Hogarth	

The following Students of the Second Year are entitled to a Certificate of having passed in :—

CONSTITUTIONAL LAW.

Durston, Sidney Bridle	Hargrave, Joshua Addison
Foster, Henry Edgar	

ORDINARY EXAMINATION FOR THE DEGREE OF LL.B.,
NOVEMBER, 1889.

The undermentioned Undergraduates passed this Examination :—

	FIRST YEAR. FIRST CLASS.		SECOND CLASS.
None		McDougall, James Gilbert	
	SECOND CLASS.		THIRD CLASS.
Beare, Edwin Arthur		None.	THIRD YEAR.
Solomon, Judah Moss			FIRST CLASS.
	THIRD CLASS.	None	
Andrews, Richard Bullock			SECOND CLASS.
Benham, Edward Warner		None	
	SECOND YEAR.		THIRD CLASS.
	FIRST CLASS.	Horn, Edward Palmer	
None		Ingleby, Rupert	

The following Student of the First Year is entitled to a Certificate of having passed in :—

THE LAW OF PROPERTY.

Wyatt, Frank Addison

The following Students of the Second Year are entitled to Certificates of having passed in :—

THE LAW OF CONTRACTS.

Bloxam, Charles a'Court	von Bertouch, Rudolph Paul Albrecht
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CONSTITUTIONAL LAW.

Bloxam, Charles a'Court

The following Students of the Third Year are entitled to Certificates of having passed in:—

THE LAW OF WRONGS.

Cleland, Edward Erskine
Foster, Henry Edgar
Greer, George Andrew

Stockdale, William John
Wigley, Henry Vandeleur

THE LAW OF PROCEDURE.

Cleland, Edward Erskine
Foster, Henry Edgar
Greer, George Andrew

Mitchell, Samuel James
Stockdale, William John

ORDINARY EXAMINATION FOR THE DEGREES OF M.B.
AND CH.B., NOVEMBER, 1889.

<p>FIRST YEAR. FIRST CLASS. Irwin, Henry Offley</p> <p>SECOND CLASS. Corbin, Cecil Goode, Arthur Sangster, John Iken</p> <p>THIRD CLASS. None</p> <p>SECOND YEAR. FIRST CLASS. Cavenagh, Wentworth Rowland</p> <p>SECOND CLASS. None</p> <p>THIRD CLASS. None</p> <p>THIRD YEAR. FIRST CLASS. Mead, Cecil Silas Fowler, Laura Margaret</p>	<p>SECOND CLASS. Giles, Henry O'Halloran Powell, Henry Arthur</p> <p>THIRD CLASS. Seabrook, Leonard Llewellyn</p> <p>FOURTH YEAR. FIRST CLASS. Verco, William Alfred</p> <p>SECOND CLASS. Morgan, Alexander Mathieson</p> <p>THIRD CLASS. None</p> <p>FIFTH YEAR. FIRST CLASS. Hope, Charles Henry Standish Goldsmith, Frederick</p> <p>SECOND CLASS. Lynch, Arthur Francis Augustin Magarey, Cromwell</p> <p>THIRD CLASS. None</p>
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The following Student of the Second Year is entitled to Certificates for having passed in—

ANATOMY AND PHYSIOLOGY.

Harbison, James Alexander

EXAMINATION FOR THE DEGREE OF M.A., DECEMBER, 1889.

Cooke, William Ernest	...	...	Mathematics
Hollidge David Henry	...	...	Classics

ORDINARY EXAMINATION FOR THE DEGREE OF B.A.,
NOVEMBER, 1889.

FIRST YEAR.

PASSED WITH HONOURS.

Heyne, Agnes Marie Johanna	...	...	Latin	...	...	...	First Class
McCarthy, Walter James	..	..	Latin	...	...	...	First Class

McCarthy, Walter James	...	...	Greek	...	...	First Class
Heyne, Agnes Marie Johanna	...	...	Mathematics	...	...	Second Class
McCarthy, Walter James	...	...	Mathematics	...	...	Second Class

SECOND YEAR.

PASSED WITH HONOURS.

Butler, Frederick Stanley	...	...	Latin	...	...	Second Class
Frewin, Thomas Hugh	...	...	Latin	...	...	Third Class
Butler, Frederick Stanley	...	...	Greek	...	...	First Class
Frewin, Thomas Hugh	...	...	Greek	...	...	First Class
Butler, Frederick Stanley	...	...	Mathematics	...	...	Third Class
Frewin, Thomas Hugh	...	...	Mathematics	...	...	Third Class

THIRD YEAR.

PASSED WITH HONOURS.

Hone, Frank Sandland	...	...	Latin	...	...	First Class
Hone, Frank Sandland	...	...	Greek	...	...	First Class
Hone, Frank Sandland	...	...	Mathematics	...	...	Third Class

ORDINARY EXAMINATION FOR THE DEGREE OF B.Sc.,
NOVEMBER, 1889.

FIRST YEAR.

PASSED WITH HONOURS.

Allen, James Bernard	...	...	Mathematics	...	...	First Class
Chapple, Frederic John	...	...	Mathematics	...	...	Second Class
Allen, James Bernard	...	...	Physics	...	...	First Class
Chapple, Frederic John	...	...	Physics	...	...	Third Class

PASSED.

FIRST CLASS.

None.

SECOND CLASS.

Benham, Ellen Ida | Corbin, Hugh Burton

THIRD CLASS.

Müller, Charlotte Mary

SECOND YEAR.

PASSED WITH HONOURS.

Wheatley, Frederick William	...	...	Mathematics	...	...	Second Class
Wheatley, Frederick William	...	...	Physics	...	...	Third Class

This Candidate also passed in Geology.

PASSED.

FIRST CLASS.

Trehy, Annie Louisa Virginia

SECOND CLASS.

Haycraft, Edith Florence | Kirby, Mary Maude
Isbister, James Linklater Thomson

THIRD CLASS.

None.

	THIRD YEAR.
Fletcher, Alfred Watkis	FIRST CLASS.
Goyder, Alexander Woodroffe	SECOND CLASS.
None	THIRD CLASS.

ORDINARY EXAMINATION FOR THE DEGREE OF MUS. BAC.,
NOVEMBER, 1889.

The names in all classes are in alphabetical order.

	FIRST YEAR.
	FIRST CLASS.
Best, Edwin	| Campbell, Florence Way
Benny, Frances	SECOND CLASS.
	THIRD CLASS.
Fray, John Hill	| Jury, Alice Emily
Hawkins, Fanny Susanna	| Wyatt, Ethel Wyatt
	SECOND YEAR.
None	FIRST CLASS.
None	SECOND CLASS.
None	THIRD CLASS.
Davis, Hester Lilian	THIRD YEAR.
	FIRST CLASS.
None	SECOND CLASS.
Sanders, William	THIRD CLASS.
Mitchell, Ernest Edwin	

APPENDIX C.

PUBLIC EXAMINATIONS.

CLASS LISTS.

HIGHER PUBLIC EXAMINATION, NOVEMBER, 1889.

The names are arranged in alphabetical order.

LATIN—PART I.

*Williams, James Spencer	|	Heffer, Richard Henderson
Haslam, Ernest Bailey		

GREEK—PART I.

Heffer, Richard Henderson

GERMAN.

McNamara, David Joseph		Meyer, Carl Otto
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ENGLISH LANGUAGE AND LITERATURE.

*Berriman, George Stevens		Haslam, Ernest Bailey
Dalby, John		

PURE MATHEMATICS—PART I.

Haslam, Ernest Bailey	|	Jenner, Charles James
Heffer, Richard Henderson		Kollosche, John
Heynemann, Wilhelmina Susanna		Richardson, Frank Joseph Webb
Hillier		

PURE MATHEMATICS—PART II.

*Griffiths, Richard Fletcher	|	LeMessurier, Thomas Abram
Gallagher, William Edward		Treleven, Walter
Heffer, Richard Henderson		

PHYSICS—PART I.

*Iliffe, James Drinkwater	|	Kollosche, John
Hamence, Charles Edward Thomas		Moore, William Alfred
Heffer, Richard Henderson		Richardson, Frank Joseph Webb
Heynemann, Wilhelmina Susanna		
Hillier		

PHYSICS—PART II.

Treleven, Walter

APPLIED MATHEMATICS.

Berriman, George Stevens	|	Heffer, Richard Henderson
Dalby, John		Treleven, Walter

INORGANIC CHEMISTRY.

* LeMessurier, Thomas Abram	|	Sells, Edward Perronet
Lloyd, Martha Hessel		Sutton, Richard
Pitcher, John Blood		Tilly, Arthur Lindsey
Pulleine, Robert Henry		Tuck, Elizabeth Frances Starkey
Rowe, Walter Tidd		* Wyllie, Alexander

* An asterisk denotes that the Candidate passed with credit.

ORGANIC AND PRACTICAL CHEMISTRY.

Heynemann, Wilhelmina Susanna	|	Ilfie, James Drinkwater
Hillier	|	McInerney, Thomas

ELEMENTARY BIOLOGY AND PHYSIOLOGY.

Ilfie, James Drinkwater	|	Pulleine, Robert Henry
Lloyd, Martha Hessel	|	Wyllie, Alexander
McInerney, Thomas	|	

GEOLOGY.

* LeMessurier, Thomas Abram	|	Roach, Bertie Smith
Howard, William	|	Simpson, Alfred Edward
McInerney, Thomas	|	Sutton, Richard

THEORY AND HISTORY OF EDUCATION.

Kollosche, John

* An asterisk denotes that the Candidate passed with credit.

NOVEMBER, 1889.—HIGHER PUBLIC EXAMINATION

36 Candidates entered themselves for the Higher Public Examination. The results are shown in the subjoined table:—

Subject.	Entered.	Passed.
Latin, Part I.	4	3
Greek, Part I.	3	1
German	2	2
English Language and Literature	4	3
Pure Mathematics, Part I.	8	6
Pure Mathematics, Part II.	5	5
Physics, Part I.	9	7
Physics, Part II.	1	1
Applied Mathematics, Part I.	6	4
Inorganic Chemistry	15	10
Organic and Practical Chemistry	4	3
Elementary Biology and Physiology	6	5
Geology	6	6
Theory and History of Education	1	1

APPENDIX D.

THE EVENING CLASSES.

The following Table shows the subjects of the lectures, the names of the lecturers, the number of lectures delivered, and the number of students who attended Evening Classes during each term in 1889.

SUBJECT.		LECTURER.		No. of Lectures.	No. of Students.		
					First Term.	Second Term.	Third Term.
Mathematics, Advanced	... ..	Mr. Chapman	..	54	10	10	10
Physics	.. ...	Professor Bragg	...	52	44	43	43
Physics, Practical	... ..	Professor Bragg	...	53	42	41	41
Chemistry, Inorganic	... ..	Professor Rennie	...	54	64	53	37
Chemistry, Practical	... ..	Professor Rennie	...	80	64	63	42
Geology	... ..	Professor Tate	...	48	16	15	15
French	... ..	Professor Boulger	...	13	Nil	10	Nil

APPENDIX E.

PUBLIC EXAMINATIONS IN MUSIC.

SENIOR PUBLIC EXAMINATION IN THE THEORY OF MUSIC,
NOVEMBER, 1889.

All classes are in alphabetical order.

FIRST CLASS.

Caw, Mary Olive
Merrett, Florence NightingaleNorman, Caroline
Paterson, Christian Isabelle Stewart

SECOND CLASS.

Benson, Emily Elizabeth
Brown, Emma Elizabeth
De Vine, Mary Ann
Eaton, Mary Ellie
Heuzenroeder, Louise Helène
Main, Lilian Susannah
Messervey, Evelyn Beatrice
Mofflin, Kate AlfredaNankervis, Maria Grace
Newman, Maude Evelyn
Porter, Henrietta
Russell, Alice
Russell, Edith
Selater, Edith Coutts
Watson, Eva AliceSENIOR PUBLIC EXAMINATION IN THE PRACTICE OF MUSIC,
NOVEMBER, 1889.

All classes are in alphabetical order.

PIANOFORTE PLAYING.

FIRST CLASS.

Ashwin, Grace
Benson, Emily Elizabeth
Clark, Isabel
Giles, Kate
Kugelmann, AnnaLührs, Sophie
Main, Lilian Susannah
Mursell - Smith, Elizabeth Annie
Sarah
Watson, Eva Alice

SECOND CLASS.

Bigg, Jane
Caw, Mary Olive
Cruickshank, Constance
Davies, Vida Ann
Daw, Emma
Eason, Charlotte
Godden, May Gertrude
Hallewell, Jane Fullarton
Hamer, Ethel May
Harkness, Mary KerrHolman, Emily Frances Hemsley
Lucas, Lucy de Neufville
Mair, Constance Mary Morphett
Mofflin, Kate Alfreda
Osborne, Maud Marian
Paterson, Christian Isabelle Stewart
Pearson, Nellie
Porter, Adelaide Kœppen
Russell, May Gwendolyn
Turnbull, Lucy Adelaide

SINGING.

FIRST CLASS.

Clark, Isabel

SECOND CLASS.

Hawkins, Annie Louisa
Hubble, Martha

Wylie, Amy Gertrude

JUNIOR PUBLIC EXAMINATION IN THE THEORY OF MUSIC,
NOVEMBER, 1889.

All Classes are in alphabetical order.

FIRST CLASS.

Ashwin, Grace
Barr, Mary
Birks, Charlotte Napier
Birks, Edith Vause
Birks, Helen Napier
Bostock, Jessie Elizabeth
Bridgewood, Constance Mary
Brown, Ethelwyn Mary
Charlick, Annie Louisa
Cobb, William Morphett
Colebatch, Florence
Colebatch, Mary Clyatt
Collins, Millie
Congreve, Emily Jane
Connor, Adelaide Constance
Cottrell, Ellie
Crooks, Agnes Ellen
Cruikshank, Constance
Cruttenden, Alice Mary Mabel
Dawson, Mattie
Eason, Charlotte
Eaton, Alice Mabel
Foulis, Elizabeth Caroline
Galbraith, Rubina
Goode, Constance
Grandfield, Edith
Hamlin, Mabel Lillian
Harris, Adeline Louise
Hervey, Euphemia Heddle

Hinde, Mabel Charlotte
Hubble, Martha
Hurcombe, Jessie Caroline
Kelly, Edith May
Kimber, Alice Ruth
Lyll, Mary Edith
Macqueen, A Florence
Minchin, Ruth
Morgan, Frederick Adolphus
Mursell - Smith, Elizabeth Annie
Sarah
Neill, Florence Renfrew
Nichols, Helena Josephine
Porter, Adelaide Keppen
Porter, Ellen Mary
Richards, Elizabeth Edna
Richards, Florence Louisa
Rowntree, Ellen Amelia
Sprod, Mary Ann
Stockwell, Fred Clarence
Swannell, Gertrude
Thallon, Constance
Tuck, Florence
Vohr, Clara Dorothea
Wainwright, Florence
Warren, Beatrice Margaret
Wendt, Alice Louise Emilie
Wendt Margaret Hermine
Wilson Alice Louisa

SECOND CLASS.

Abbott, Edith Bristow
Agars, Margaret Alice
Aldersey, Elizabeth Lee
Barber, Louisa Nettie
Bath, Hilda
Bowen, Ethel Maude
Branson, George
Cant, Myra
Carter, May
Cox, Mary Alicia
Dove, Edith Dorothea Mary
Flint, Ada Clack
Gartrell, Marion
Gill, Mylinda Kate
Glyde, Kate Gertrude Lavington
Hocking, Edith
Hosken, Clara

Hughes, Edith Mary Clara
Kelly, Laura Edith
Knight, Maggie Moir
Lee, Edith Gertrude
Lewis, Caroline Margaret
Lyons, Emma Elizabeth
Main, Jessie
Maley, Lily
Robinson, Agnes Isabella
Selth, Millicent
Staples, Katie Mary
Stock, Olive Bessie
Swan, Maggie Raven
Thomas, Bertha Jane
Trudgen, Adeline Mary
Westwood, Kathleen Julia

JUNIOR PUBLIC EXAMINATION IN THE PRACTICE OF MUSIC,
NOVEMBER, 1889.

All Classes are in alphabetical order.

PIANOFORTE PLAYING.

FIRST CLASS.

Beach, Olive Marian
Birks, Edith Vause
Bonnin, Constance Josephine
Bowden, Ella Harriet
Charlick, Annie Louisa
Colebatch, Florence
Colebatch, Mary Clyatt
Deland, Ina Jane
De Mole, Fanny
Dobbs, Elisa
Edmunds, Laura Mary
Fletcher, Harold Browning
Glyde, Kate Gertrude Lavington
Grandfield, Edith

Hamlin, Mabel Lilian
Hardy, Inez Mary
Hodge, Emily
Knight, Maggie Moir
Loessel, Lucia Marie Louise
Lyll, Mary Edith
Main, Jessie
Minchin, Ruth
Moffatt, Teresa Blanche
Palmer, Frances
Verco, Jane Elizabeth
Wagener, Madeline Louisa Frances
Wyly, Kathleen Beatrice

SECOND CLASS.

Adamson, Margaret Thomson
Ambrose, Ethel Mary Murray
Anderson, Ellen
Bosch, Anna Josephine
Brown, Ethelwyn Mary
Burford, Evaline
Büring, Meta
Button, Sarah Elvina
Caterer, Louisa Adelaide Mary
Clark, Edith Agnes
Cook, Katherine Dixon
Correll, Lavinia Mary
Cruttenden, Alicia Mary Mabel
Dawkins, Sarah
Eaton, Edith May
Goyder, Margaret
Gurner, Beatrice Marion
Hawker, Lillian Beatrice
Hawkes, Florence Mabel
Hill, May
Hosken, Clara

Hotson, Lillian Mary
Kyd, Emily Julia
Laughton, Florence
Lühns, Meta Emilie
Newman, Maude Evelyn
Porter, Ellen Mary
Price, Annette Agnes
Scott, Ethel Maude
Selth, Millicent
Short, Ethel Augusta
Smith, Agnes Ethel
Sprod, Mary Ann
Staples, Mary Anna Ethel
Stockwell, Fred Clarence
Stubbs, Lillian Emilie
Tuck, Florence
Turnbull, Sophie Laura Harriet
Vohr, Clara Dorothea
Wainwright, Florence
Warren, Kate Hilda
Wendt, Margaret Hermine

ORGAN PLAYING.

FIRST CLASS.

None.

SECOND CLASS.

Webb, Lucy

SINGING.

FIRST CLASS.

Hannam, Sarah Amy

Hosken, Clara

SECOND CLASS.

Bridgwood, Constance Mary
Hardy, Inez Mary

Hosier, Mabel Annie
Richardson, Mabel Eliza

APPENDIX F.

SPECIAL SENIOR PUBLIC EXAMINATION, MARCH, 1889.

All classes in alphabetical order.

FIRST CLASS.

None

SECOND CLASS.

None

THIRD CLASS.

Cole, Stephen Baldwin Sarnion, 1, 2, 9, 12

Fox, John Henry, 1, 2, 7

Gunson, William Joseph, 1, 2, 7

Russell, Alfred Edward James, 1, 2, 7, 8, 9

Last Place of Education.

Private Tuition

Christian Brothers' College

Christian Brothers' College

St. Peter's Collegiate School

The following candidate passed in the undermentioned subject for the purpose of commencing the medical course:—

Irwin, Henry Offley, 8

St. Peter's Collegiate School

The figures attached to the name of any candidate show in which subjects the candidate passed, as follows:

1.—English

2.—Latin

3.—Greek

4.—French

5.—German

6.—Italian

7.—Pure Mathematics

8.—Applied Mathematics

9.—Chemistry

10.—Experimental Physics

11.—Botany and Physiology

12.—Physical Geography and the Principles of Geology.

MARCH, 1889.—SENIOR PUBLIC EXAMINATION.

8 Candidates entered themselves for this Examination, of whom 3 failed to satisfy the Examiners.
 The following Table shows the Number of Candidates who entered themselves for, and of those who passed in, various Subjects :

Subjects.	No. of Boys entered.	No. of Girls entered.	Total.	No. of Boys passed.	No. of Girls passed.	Total.
Latin	7	0	7	4	0	4
Greek	0	0	0	0	0	0
Pure Mathematics	5	0	5	3	0	3
Applied Mathematics	3	0	3	2	0	2
French	0	0	0	0	0	0
German	0	0	0	0	0	0
English	7	0	7	4	0	4
Chemistry	3	0	3	2	0	2
Physics	1	0	1	0	0	0
Botany and Physiology... ..	1	0	1	0	0	0
Physical Geography and Geology	3	0	3	1	0	1

SENIOR PUBLIC EXAMINATION, NOVEMBER AND
DECEMBER, 1889.

All classes in alphabetical order.

FIRST CLASS.

	<i>Last Place of Education.</i>
Ayers, Frederick Gordon, 1*, 2*, 3, 7, 8, 9*	St. Peter's Collegiate School
Blackburn, Charles Bickerton, 1*, 2*, 3, 7*, 8, 9*	St. Peter's Collegiate School
Brown, James Watson, 1*, 2*, 3*, 5, 7*, 8, 9*	St. Peter's Collegiate School
Campbell, Richard Adderley, 1*, 2*, 3*, 7*, 8, 9*	St. Peter's Collegiate School
Cross, Ethel Bessie, 1, 4, 5, 7, 11*, 12*	Advanced School for Girls
Plummer, Violet May, 1*, 4*, 5*, 7, 11*, 12	Advanced School for Girls
Poole, Thomas Slaney, 1*, 2*, 3*, 5, 7, 8, 9*	St. Peter's Collegiate School
William, Eva Roubel, 1*, 4*, 5, 7, 11*, 12*	Advanced School for Girls
Wilson, Isabel Mathieson, 1*, 4, 5, 7, 11*, 12*	Advanced School for Girls

SECOND CLASS.

Beck, Edward Deighton, 1, 2, 7*, 8, 9	St. Peter's Collegiate School
Bell, Florence Elsie, 1*, 4*, 5, 7, 11, 12	Advanced School for Girls
Blackburn, Thomas Wordsworth Gavin, 1*, 2*, 3, 8, 9	St. Peter's Collegiate School
Bonnin, James Atkinson, 1, 2, 7, 8, 10, 11*	Glenelg Grammar School
Bosch, Anna Josephine, 1, 4, 5, 7, 11*, 12	Advanced School for Girls
Boudry, Frank Palmer, 1*, 2, 3, 7*, 10	Prince Alfred College
Butler, Wilfred Horace, 1, 2, 3, 7*, 10	Prince Alfred College
Gillman, William Holland, 1*, 2, 3, 7*, 9	St. Peter's Collegiate School
Hannam, Sarah Amelia, 1*, 4, 11*, 12	Unley Park School
Hardy, Inez Mary, 1, 4, 11*, 12	Unley Park School
Heuzenroeder, Louise Helène, 1, 4, 5*, 11, 12	Advanced School for Girls
Mitton, Ernest Gladstone, 1, 2, 3, 7*, 10	Prince Alfred College
Newman, Edgar Harold, 1*, 2*, 3, 7	Prince Alfred College
Nicholls, Leslie Herbert, 1, 2, 3, 7*	Prince Alfred College
Trüdinger, Anna, 1*, 2, 4, 5*, 7, 11, 12	Advanced School for Girls
Zowe, Agnes Adeline, 1*, 4, 5*, 7, 11, 12	Advanced School for Girls

THIRD CLASS.

Adams, Charles Francis, 1*, 3, 7, 10	Prince Alfred College
Aldersey, Elizabeth Lee, 1*, 4, 12	Miss Aldersey's School
Allen, Robert Harry, 1, 2, 7	St. Peter's Collegiate School
Anderson, William Munro, 1, 2, 7	Prince Alfred College
Bailey, Ernest Thomas, 1*, 2, 7, 12	Private Tuition
Birks, Elsie Allen, 1, 4, 12	Miss Vivian's School
Blackwell, Flora Louisa, 1, 4, 7, 11, 12	Advanced School for Girls
Boucant, James Penn, 1*, 2*, 7	Prince Alfred College
Caterer, Clarence Phillipps, 1, 2, 7, 8	Glenelg Grammar School
Chapple, Edith, 1, 4, 11, 12	Advanced School for Girls
Fisher, Ella Constance, 1, 4, 10, 12	Private Tuition
Hamer, Ethel M., 1*, 4, 7, 11, 12	Advanced School for Girls
Hunter, George McIntyre, 1, 2, 10	Prince Alfred College
Jones, Thomas Henry, 1, 5, 10*	Private Tuition
Joyner, Frank Reeve, 1, 2, 7	North Adelaide High School
Jude, Frederick John, 1, 2, 7	Prince Alfred College
Kennedy, Francis Thomas, 1, 2, 7,	Christian Brothers' College
King, William Frank, 1, 2, 7, 10	Prince Alfred College
Lambert, Ada Mary, 1, 4, 7, 11, 12	Advanced School for Girls

Lovely, William Harvey Capman, 1, 2, 8
 McEwin, George, 1, 2, 7, 12
 McLachlan, Alexander John, 1*, 2, 12
 McNamara, Percival Laurence, 1*, 2, 7*
 Newman, Olive Gertrude, 1*, 4, 11
 Penny, Clifton Raymond, 1*, 2, 3, 7, 10
 Pike, Florence May, 1*, 4, 5, 7, 11, 12
 Pitt, Ada Gertrude, 1*, 4, 11
 Richardson, Ethel Maude, 1*, 4, 7, 10, 12
 Salom, Edgar Jacob, 1, 2, 7
 Sewell, Frank, 1*, 2, 5, 7
 Trevenen, Mabel Mary, 1*, 4, 7, 11, 12

Last Place of Education.
 St. Peter's Collegiate School
 Whinham College
 Mr. Maudsley's Tuition
 Christian Brothers' College
 Hardwicke College
 Prince Alfred College
 Advanced School for Girls
 Hardwicke College
 Dryburgh House School
 St. Peter's Collegiate School
 St. Peter's Collegiate School
 Advanced School for Girls.

The following Candidate passed in the undermentioned special subjects:—

Parsons, Herbert Angus, 5, 8, 9, 10

Prince Alfred College.

In the foregoing lists an asterisk denotes that the Candidate passed *with credit* in the subject represented by the figure to which the asterisk is attached.

The figures attached to the name of any Candidate show in which subjects the Candidate passed, as follows:—

- 1.—English
- 2.—Latin
- 3.—Greek
- 4.—French
- 5.—German
- 6.—Italian
- 7.—Pure Mathematics

- 8.—Applied Mathematic
- 9.—Chemistry
- 10.—Experimental Physics
- 11.—Botany and Physiology
- 12.—Physical Geography and the Principles of Geology.

NOVEMBER, 1889.—SENIOR PUBLIC EXAMINATION.

84 Candidates entered themselves for this Examination, of whom 27 failed to satisfy the Examiners.
 The following Table shows the Number of Candidates who entered themselves for, and of those who passed in, various Subjects :

Subjects.	No. of Boys entered.	No. of Girls entered.	Total.	No. of Boys passed.	No. of Girls passed.	Total.
Latin	51	4	55	31	1	32
Greek	20	0	20	14	0	14
Pure Mathematics	49	23	72	28	14	42
Applied Mathematics	19	0	19	11	0	11
French	4	30	34	0	23	23
German... .. .	14	14	28	5	10	15
English... .. .	53	30	83	33	23	56
Chemistry	14	0	14	9	0	9
Physics... .. .	23	2	25	10	2	12
Botany and Physiology	3	28	31	1	19	20
Physical Geography and Geology	9	27	36	3	21	24

APPENDIX G.

JUNIOR PUBLIC EXAMINATION, NOVEMBER & DECEMBER, 1889.

All classes are in alphabetical order.

FIRST CLASS.

Birks, Laurence, 1, 2, 5*, 6*, 7b
 Chapple, Marian, 1*, 4*, 5*, 6, 7c
 Cooke, Florence Emmeline, 1*, 2, 4*, 5*, 6
 Johnstone, Percy Emerson, 1, 2*, 5*, 6, 7b
 Sholl, Reginald Frank, 2*, 4, 5*, 6, 7b
 Stuckey, Edward Joseph, 2, 3, 5, 6*, 7*b
 Stuckey, Francis Seavington, 2, 5, 6*, 7*b
 Williams, Charles Hartley, 1*, 2*, 3, 6, 7c

Last Place of Education.
 Prince Alfred College
 Advanced School for Girls
 Advanced School for Girls
 Prince Alfred College
 St. Peter's Collegiate School
 St. Peter's Collegiate School
 St. Peter's Collegiate School
 High School, Mount Gambier

SECOND CLASS.

Ambrose, Ethel Mary Murray, 1, 4*, 6, 7c
 Bowen, Robert George, 1, 2, 6*, 7b
 Biring, Meta Caroline, 1*, 5*, 7c
 Cook, Catherine Dixon, 1, 4*, 5, 7c
 Cowling, Albert Bright, 1, 2, 6*, 7b
 DeMole, Violet, 1*, 4, 5, 6, 7c
 Hancock, George Alfred, 1, 2, 4, 6, 7*b
 Searle, George, 2, 5*, 6, 7b

Unley Park School
 Prince Alfred College
 Advanced School for Girls
 Mrs. Hubbe's School
 Prince Alfred College
 Advanced School for Girls
 Prince Alfred College
 Prince Alfred College

THIRD CLASS.

Adams, Ernest Henry, 1, 2, 6
 Angel, Sidney, 1, 5, 6, 7a
 Beeton, Reginald, 1, 5, 6
 Birt, Constance Jane, 1, 4, 5
 Church, Norman John, 2, 5, 6, 7b
 Dowie, Charles Stuart, 2, 5, 7b
 Downer, James Frederick, 1, 2, 3
 Dungey, Mary Pash, 1, 5, 7c
 Goode, Christina Love, 1, 4, 7c
 Haslam, Albert Llewelyn, 1, 4, 6, 7b
 Hunter, Ellen Wynne, 1, 5, 7c
 Leitch, Oliver, 1, 6*, 7b
 Lloyd, Beatrice Butters, 1*, 4, 5
 Main, Elsie Harriet, 1, 4, 5, 7c
 Miller, Frederick John George, 1, 2, 5,
 Robin, Ethelwyn, 1, 4, 7c
 Solomon, Isaac Herbert, 1, 5, 7a
 Stockwell, Fred Clarence, 1, 5, 6
 Wedd, Gilbert, 1, 2*, 7c
 Williams, Dora Frances, 1, 4, 5

Prince Alfred College
 Adelaide Collegiate School
 Adelaide Collegiate School
 Advanced School for Girls
 St. Peter's Collegiate School
 Prince Alfred College
 St. Peter's Collegiate School
 Advanced School for Girls
 Miss Aldersey's School
 Prince Alfred College
 Advanced School for Girls
 Prince Alfred College
 Private Tuition
 Advanced School for Girls
 Prince Alfred College
 Miss Adamson's School
 Adelaide Collegiate School
 St. Peter's Collegiate School
 High School, Mount Gambier
 Advanced School for Girls

The following Candidates passed, but being over sixteen years of age at the time of examination are not classified :—

	<i>Last Place of Education.</i>
Cobb, William Morphett, 1, 2, 6*	Prince Alfred College
DeMole, Evelyn Annie, 1, 5, 7c	Advanced School for Girls
Fletcher, Harold Browning, 2, 6, 7b	Prince Alfred College
Fryer, Edith Beatrice, 1, 4, 7c	Unley Park School
Hamlin, Mabel Lillian, 1, 5, 7c	Advanced School for Girls
Johnson, Edward Angus, 1, 6, 7b	St. Peter's Collegiate School
Kelly, Catherine Lucy, 1, 4, 5*, 6*	Dominican Convent, Cabra
Loader, George, 2, 5*, 7b	Prince Alfred College
Lord, Mary Edith, 1, 2, 7c	Wynward College, Mt. Gambier
Marryat, Cyril Beaumont, 1, 2, 6, 7b	St. Peter's Collegiate School
Mudge, Charlotte Bowden, 1, 4, 6	Adelaide High School
Palmer, Frances Rigarfsford, 1, 5, 7c	Miss Aldersey's School
Rees, Sydney Bagot, 5, 6, 7b	St. Peter's Collegiate School
Salter, Alfred Fulton, 1, 5, 6, 7b	Prince Alfred College
Sassanowsky, Anna Marie Hermine, 1, 5*, 7c	Wynward College, Mt. Gambier
Solomon, Isabel, 1, 2, 5	Misses McMinn's School
Tomkinson, Francis Christie, 1, 2, 6	Hahndorf College
Walker, Jack McNeil, 1, 2, 6, 7b	Prince Alfred College

In the foregoing lists an asterisk denotes that the Candidate passed *with credit* in the subject represented by the figure to which the asterisk is attached.

The figures attached to the name of any Candidate show in which subjects the Candidate passed, as follows :—

- 1.—English
- 2.—Latin
- 3.—Greek
- 4.—French
- 5.—German

- 6.—Mathematics
- 7a.—Elementary Physics
- 7b.—Elementary Chemistry
- 7c.—Elementary Botany and Physiology

JUNIOR PUBLIC EXAMINATION, NOVEMBER, 1889.

71 *Candidates entered for this Examination, of whom 17 failed to satisfy the Examiners. The following Table shows the Number of Candidates who entered themselves for, and of those who passed in, various Subjects.*

Subjects.	No. of Boys entered.	No. of Girls entered.	Total.	No. of Boys passed.	No. of Girls passed	Total.
English	40	28	68	23	24	47
Latin	36	8	44	22	3	25
Greek	4	0	4	3	0	3
French	6	23	29	3	14	17
German	23	19	42	16	17	33
Mathematics	41	11	52	26	6	32
Chemistry	25	0	25	20	0	20
Elementary Physics ...	5	0	5	2	0	2
Physiology and Botany	2	23	25	2	16	18

APPENDIX H.

PRELIMINARY EXAMINATION, MARCH, 1889.

Pass List in alphabetical order.

Blackwell, Flora Louisa	Leitch, Oliver
Bosch, Dorothea Elise	Loessel, Hermine Alma Helene
Downer, John Henry	Malpas, James Stanley
Forwood, Charles Perry	Swan, Henry Ernest
Frankenberg, Edith Esther	Walker, Jack McNeil

PRELIMINARY EXAMINATION, SEPTEMBER, 1889.

Pass List in alphabetical order.

Abbott, Alfred	Considine, Mary Ann
Allen, Maude Emily	Cook, Katherine Dixon
Angel, Sidney	Cornish, Leonard Hubert
Anthony, Frank James	Cross, Mabel Eileen
Austin, Henry Lashbrooke	Davey, George Arthur
Baker, Catherine May	Davis, Alfred Edwin
Basedow, Erwin	Davis, Ella Maud
Bertram, Maude	Davis, Frederick
Bevilaqua, Edith Annie	Davis, Hester Lilian
Birt, Constance Jane	Davison, John Hawdon
Blackburn, Edward Forth William	De Mole, Evelyn Annie
Blackmore, George Edward	De Mole, Fannie
Bolitho, Herbert McLean	Denny, Richard Power
Bollmeyer, Margaret	Drew, Thomas Mitchell
Bosworth, Richard Leslie Eugene	Eagle, Martha
Bowen, Frederick	Evans, Mabel
Bowen, Robert George	Finlayson, Bessie Cornish
Bray, Cecil Thomas	Fisher, Mary Ann
Brazil, Daniel Francis	Fotheringham, Mabel
Brown, Harry Wheeler	Fryer, Edith Beatrice
Büring, Albert Gustav Adolph	Gates, Benjamin John
Büring, Meta	Goode, Christina Love
Campbell, Archibald	Goode, Ernest Russell
Campbell, William Horace	Goode, William Ernest
Cant, Myra	Gordon, Alexander
Carter, May	Graham, Robert James
Christison, Francis Charteris Wemyss	Hack, Charles Gerald
Church, Norman John	Hack, Clement Alfred
Clark, Edward Vincent	Hack, Leonard
Cobb, William Morphett	Hack, William Wilton Meora
Cochrane, James Patrick	Stephen
Collison, Edith	Hains, George Meyer
Collison, Maud Marion	Hantke, Mabel Louise Theodora
Combe, James Bowen	Hamlin, Mabel
Conigrave, Isla May	Hastings, Harold

Hayward, Arthur Dudley
 Hill, Frederick Stanley
 Hill, May
 Hodgson, Frank Vincent
 Holbrook, Robert James
 Hollidge, Annie Florence
 Høltje, Jessie
 Honnor, Robert Francis
 James, Annie Rowe
 Jones, Arthur Lees
 Jones, Thomas Henry
 Jury, Alice Emily
 Kekwick, Edwin Huntley
 Kelly, Edith May
 Lang, Sydney Chapman
 Laughton, Florence
 Laurence, Lillian Charlotte
 Laycock, Harry
 Lewis, William
 Linehan, Thomas Edward
 Lord, Mary Edith
 Luxmoore, Winifred Agnes
 Lyall, Mary Edith
 Lynch, Frances Catherine
 McBride, Gerald Bede
 McFarlane, Donald Hector
 McRostie, Walter Julius
 Mahoney, Annie
 Makin, John Hugh Walter
 Marshall, Harold Witter
 Millington, Paul
 Morphett, George Cummins
 Mullin, Sarah
 Nadebaum, August Ernest
 Newbould, Arnold James Colmer
 O'Sullivan, Roger Florence
 Palmer, Frances Rigarfsford
 Parkinson, Thomas Smirk Percy

Parkinson, William Gray
 Pearce, James Alfred
 Penny, Blanche Maud
 Powell, Francis William
 Power, Mary Ida
 Proctor, Mary Ellen
 Pryor, James
 Quirke, Margaret
 Ramsey, Frederick Abraham
 Richardson, Augustus Merrifield
 Richardson, Jessie
 Richardson, Mary Mowbray
 Robin, Ethelwyn
 Sassanowsky, Anna Marie Hermine
 Shorney, Bertha Marion
 Sillifant, Mary
 Simpson, Gordon Liddon
 Sinclair, Grace Ella Mary
 Smyth, Isabel Agnes Ekin
 Solomon, Isabel
 Stanton, Guy Clement
 Staples, Mary Anna Ethel
 Storen, Thomas Ignatius
 Tennant, Frederick Augustus
 Tomkinson, Francis Christie
 Twiss, Leonora Ethel
 Ure, William Douglas
 Vardon, Ralph
 Verco, Clement Armour
 Walker, Ellen Lawson
 Walker, Florence Ethel
 Warren, George Kenneth Grant
 Wayland, Edmund Stuart
 Wedd, Gilbert
 Wicksteed, Frances Felicité
 Williams, Anna Eliza
 Wilson, Alec Graham
 Yeates, Mary Dymphna

Amount of Income and Expenditure for the year 1889, furnished in
INCOME.

	£	s.	d.	£	s.	d.
Balance in Bank on 31st December, 1888 ...				1,251	5	7
<i>Income</i> —H. M. Government—Subsidy on General Endowments ...	2,050	0	0			
Fees ...	3,191	12	5			
Interest ...	2,397	18	2			
Rent ...	1,306	18	3			
				8,946	8	10
<i>Evening Classes</i> —Interest on Endowment ...	51	9	6			
Government Subsidy thereon ...	61	0	0			
Fees received from Students ...	131	8	4			
				243	17	10
<i>J. H. Clark Scholarship Fund</i> —						
Interest on Investment ...	35	0	0			
Government Subsidy thereon ...	25	0	0			
				60	0	0
<i>Stow Prize and Scholarship Fund</i> —						
Interest on Investment ...	35	0	0			
Government subsidy thereon ...	25	0	0			
				60	0	0
<i>Medical School</i> —Interest on Investment ...	640	0	0			
Government Subsidy thereon ...	800	0	0			
Donation—Sir T. Elder ...	500	0	0			
H. M. Government—Transfer of S. A. Scholarship to Medical School ...	400	0	0			
Fees received for use of Physiological Laboratory and Microscopes ...	30	9	0			
Sundries ...	28	14	0			
	59	3	0			
				2,399	3	0
<i>Laboratories</i> —Deposit Account ...				25	14	2
<i>The Dr. Chas. Gosse Lectureship on Ophthalmic Surgery</i> —						
Interest on Investment ...	33	15	2			
Government Subsidy thereon ...	40	0	0			
				73	15	2
<i>Angas Engineering Scholarship and Exhibition</i> —						
Interest on Investment ...	160	0	0			
Government Subsidy thereon ...	200	0	0			
				360	0	0
<i>Chair of Music</i> —From Sundry Subscribers ...	494	1	0			
Receipts from Three Public Lectures on Music ...	26	14	0			
				520	15	0
<i>Sir T. Elder's Prizes for Physiology</i> —						
Amount received from Sir T. Elder ...				40	0	0
<i>Investment Account</i> —Mortgages Repaid ...				5,900	0	0
<i>Library Deposit Account</i> —						
Amount received during year ...				30	0	0
<i>Sinking Fund</i> —Amount withdrawn from Savings Bank during year ...				543	16	11
<i>English, Scottish, and Australian Chartered Bank</i> —						
Deposit Repaid ...				1,250	0	0
<i>Agent-General</i> —						
Balance expended in excess of amount remitted ...				3	12	9
				£21,708	9	3

Audited and found correct,
Adelaide, 28th January, 1890.

compliance with the 18th Section of Act 37 and 38 Victoria, No. 20 of 1874.

EXPENDITURE.

	£	s.	d.	£.	s.	d.
<i>Building</i>				304	1	11
<i>Annual Expenses—</i>						
Salaries	9,013	1	4			
Senate Account	33	8	3			
Examinations	384	1	3			
Charges	330	3	7			
Land Tax	147	5	6			
Stationery	40	10	5			
Advertising	20	6	3			
Printing	144	11	5			
				10,113	8	0
<i>Interest Account—Interest on Bank Overdraft</i>				100	10	3
<i>Evening Classes—</i>						
Fees paid to Lecturers	160	2	0			
Charges	12	15	0			
				172	17	0
<i>Library—Binding and Purchase of Books</i>				132	4	8
<i>Laboratories—Purchase of Apparatus</i>				280	14	6
<i>Furniture</i>				63	11	0
<i>Museum</i>				15	12	3
<i>J. H. Clark Scholarship—</i>						
Paid Scholars				60	0	0
<i>Sir Thomas Elder's Prizes for Physiology</i>				20	0	0
<i>Chair of Music—</i>						
Fees paid to Professor Ives	250	0	0			
Charges	80	12	8			
				330	12	8
<i>Medical School—</i>						
Purchase of Apparatus				135	9	3
<i>Sinking Fund—</i>						
Amount paid into Savings Bank	375	0	0			
Suspense Account <i>vs</i> Sinking Fund not yet paid into Savings Bank	125	0	0			
				500	0	0
<i>Angas Engineering Scholarship—Paid Scholar</i>				100	0	0
<i>Angas Engineering Exhibition—Paid Exhibitioner</i>				60	0	0
<i>E. S. and A. C. Bank—</i>						
Amount deposited during year				800	0	0
<i>Library Deposit Account—</i>						
Amount refunded to Students				30	0	0
<i>Laboratory Deposit Account—</i>						
Amount refunded to Students				14	11	6
<i>Investment Account—Loan on Mortgage</i>				7,400	0	0
<i>Balance in Bank</i>				1,074	16	3

£21,708 9 3

W. S. DOUGLAS,
ARTHUR YOUNG HARVEY, } Auditors.

THE UNIVERSITY OF ADELAIDE.—*Statement showing*

	Dr.	£	s.	d.	£	s.	d.
To General Endowment—Sir W. Hughes, Sir T. Elder, and others... ..					40,750	3	0
Land Endowment from H. M. Government... ..					55,000	0	0
Contributed towards the Building by H.M. Government..					18,014	0	0
Contributed towards the Building by Private Donations...					1,890	5	0
Income (less annual charges)...					15,740	5	6
Rent in Arrears... ..					4,970	17	2
Medical School Endowment Fund—Sir T. Elder	10,000	0	0				
Hon. J. H. Angas	6,000	0	0				
					16,000	0	0
The Dr. Charles Gosse Lectureship Endowment Fund (Capital Account)		800	0	0			
Income Account		268	1	9			
					1,068	1	9
Medical School (Income received to date)					8,044	5	1
Stow Prize and Scholarship Endowment Fund (Capital Account)		500	0	0			
Income Account		275	16	9			
					775	16	9
John Howard Clark Scholarship Endowment Fund (Capital Account)		500	0	0			
Income Account		26	5	7			
					526	5	7
Evening Lectures Endowment Fund (Capital Account)		1,220	0	0			
Income Account		221	9	5			
					1,441	9	5
Chair of Music—Balance of Receipts over Expenditure (exclusive of Professor Ives salary)					1,444	14	6
Angas Engineering Scholarship and Exhibition Endowment Fund—Capital Account		4,000	0	0			
Income Account		486	13	4			
					4,486	13	4
Prize given by J. B. Sheridan, Esq.					12	12	0
Laboratory Deposit Account...					13	4	9
					£170,178	13	10

Audited and found correct,
Adelaide, 28th January, 1890.

CCXCV

the actual Financial Position on 31st December, 1889.

	CR.	£	s.	d.	£	s.	d.
By Value of Land granted by H.M. Government ...	55,000	0	0				
Expended in Improvements thereon ...	2,879	15	1				
					57,879	15	1
Expended in University Buildings					39,923	5	10
Library—Expended to Date...					2,860	17	8
Laboratory do.					3,137	5	9
Museum do.					365	19	7
Furniture do.					1,519	9	0
Sundry Mortgages—							
General Loans from 5½% to 7% ...	32,186	3	1				
John Howard Clark Scholarship, at 7% ...	500	0	0				
Stow Prize and Scholarship, at 7% ...	500	0	0				
					33,186	3	1
Angas Engineering Scholarship and Exhibition Deposited at E. S. and A. C. Bank at 5% ...					4,000	0	0
Evening Lectures Fund, deposited at E.S. and A.C. Bank ...	556	3	1				
Invested on Mortgage ...	663	16	11				
					1,220	0	0
Sinking Fund—Amount deposited at E. S. & A. C. Bank at 4% ...	1,125	0	0				
Do. do., Savings Bank	250	0	0				
Interest accrued thereon	18	16	11				
Suspense Account Cheque (not yet paid in) ...	125	0	0				
					1,518	16	11
Medical School Endowment Fund—Amount invested in Treasury Bills ...	13,000	0	0				
Loan on Mortgage at 6%.	3,000	0	0				
					16,000	0	0
The Dr. Charles Gosse Lectureship Endowment Fund—Amount invested in Treasury Bills ...					800	0	0
Treasury Bills—General Income Account ...					1,200	0	0
Sundry Debtors, including Rent in Arrears ...					5,346	8	6
Agent-General of S. A. — Amount in his hands ...					145	16	2
Balance in Bank ...					1,074	16	3
					£170,178	13	10

W. S. DOUGLAS, }
 ARTHUR YOUNG HARVEY, } Auditors.

W. K. THOMAS & CO., PRINTERS, GRENFELL STREET, ADELAIDE.
