

THE

Adelaide University Calendar

FOR THE

ACADEMICAL YEAR 1889.

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

1889.

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

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ADELAIDE UNIVERSITY CALENDAR
FOR THE YEAR 1889.

ERRATUM.

At page 12 of the Almanac the Last day for entry for the Higher Public Examination should be Monday, 28th October, instead of Friday, the 18th.

JANUARY XXXI.

1889.

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

1889.

FEBRUARY XXVIII.

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

1	F	
2	S	
3	S	
4	M	
5	TU	
6	W	
7	TH	
8	F	
9	S	
10	S	
11	M	Vacation ends.
12	TU	First Term begins: and Ordinary, LL.B., Preliminary, Special Senior Public, University Scholarships, Angas Engineering Scholarship, and Angas Engineering Exhibition Examinations begin.
13	W	Lectures begin.
14	TH	
15	F	
16	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 27.
17	S	
18	M	
19	TU	
20	W	
21	TH	
22	F	
23	S	
24	S	
25	M	
26	TU	
27	W	Senate meets. Election of Warden and Clerk.
28	TH	
29	F	Council Meeting.
30	S	
31	S	

1889.

APRIL XXX.

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

MAY XXXI.

1889.

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

1889.

JUNE XXX.

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

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

1889.

AUGUST XXXI.

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	
18	S	
19	M	
20	TU	
21	W	
22	TH	
23	F	Second Term ends. Lectures end. [tember.
24	S	Last day of entry for the Preliminary Examination in Sep-
25	S	
26	M	
27	TU	
28	W	
29	TH	
30	F	Council Meeting.
31	S	

1	S	
2	M	Public holiday.
3	TU	
4	W	
5	TH	
6	F	
7	S	
8	S	
9	M	
10	TU	Lectures begin. Preliminary Examination begins.
11	W	
12	TH	
13	F	
14	S	
15	S	
16	M	
17	TU	
18	W	
19	TH	
20	F	
21	S	
22	S	
23	M	Council Meeting.
24	TU	
25	W	
26	TH	
27	F	
28	S	
29	S	
30	M	

1889.

OCTOBER XXXI.

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

1	F	Public Examinations in Theory of Music begin. Last day of entry for the M.A. Degree.
2	S	
3	S	
4	M	Lectures end. Prince of Wales' Birthday. Public holiday.
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	LL.D. Ordinary, LL.B., M.B., B.A., B.Sc., and Higher Public Examinations begin. Ordinary Mus. Bac. Examination begins.
19	TU	
20	W	
21	TH	
22	F	
23	S	
24	S	
25	M	
26	TU	
27	W	
28	TH	
29	F	
30	S	

1889.

DECEMBER XXXI.

1	S	
2	M	Examination for the M.A. Degree begins.
3	TU	
4	W	
5	TH	
6	F	
7	S	
8	S	
9	M	Last day of entry for the Angas Engineering Scholarship and the Angas Engineering Exhibition Examinations to be held in March, 1890. Third term ends. Council Meeting.
10	TU	
11	W	
12	TH	
13	F	
14	S	
15	S	
16	M	
17	TU	
18	W	
19	TH	
20	F	
21	S	
22	S	
23	M	Christmas Day. Proclamation of the Colony. Public Holiday.
24	TU	
25	W	
26	TH	
27	F	
28	S	
29	S	
30	M	
31	TU	

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 ; 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 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: 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 executor 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, 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 in 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 1863-4, 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."

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

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, 1888.

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 25th, 1889.

Edward Willis Way, M.B., 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 ^{Clerk of the Senate and his duties.} perform such duties as may be directed by the Warden.

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 ^{Times of meeting of Senate.} 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.

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.

FREDERIC CHAPPLE,

December 2nd, 1885.

WARDEN.

The University of Adelaide.

1889.

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 first time, 16th December, 1887.

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

Elected by the Senate, 1st December, 1886.

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., D.D.

CHARLES TODD, M.A., C.M.G.

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.

EDWARD WILLIAM HAWKER, LL.B., M.P.

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.
 WILLIAM EVERARD, J.P.

II.

THE SENATE.

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

DOCTORS OF LAWS.

BARLOW, WILLIAM (Dublin, 1884)	...	...	...	...	1885
FARR GEORGE HENRY (Cambridge, 1882)	...	...	...	...	1883
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
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
BOLGHER, EDWARD VAUGHAN (Dublin, 1872)	1884
BRAGG, WILLIAM HENRY (Cambridge, 1888)	1888
BURTT, THOMAS (Cambridge, 1855)	1877
CARR, WHITMORE (Dublin, 1848)	1877
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
HOWELL, EDWARD TUCKER (Oxford, 1860)	1877
KELLY, DAVID FREDERICK (Cambridge, 1878)	1879
KENNION, GEORGE WYNDHAM (Oxford, 1871)	1883
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, 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
DOWNER, GEORGE HENRY	1885

GILES, THOMAS O'HALLORAN (Cambridge, 1883)	1886
GILL, ALFRED	1885
HALL, ROBERT WILLIAM	1884
HAWKER, EDWARD WILLIAM (Cambridge, 1873)	1877
HAY, JAMES (Cambridge, 1880)	1883
HENDERSON, WILLIAM	1884
HEWITSON, THOMAS... ..	1884
JEFFERIS, JAMES (London, 1856)	1877
PHILLIPS, WALTER ROSS (Cambridge, 1878)	1883
SABINE, CLEMENT EGBERT EPPES	1884
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

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
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
CATERER, THOMAS AINSLIE (Clerk of the Senate)	1876
CHAPPLE, FREDERIC (London, 1870)	1877
CHURCHWARD, SAMUEL (London, 1873)	1877
COOKE, WILLIAM ERNEST	1883
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

HOLDER, SYDNEY ERNEST	...	...	...	...	...	1882
HOPKINS, WILLIAM FLEMING	...	...	...	...	...	1884
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
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
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
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III.**GRADUATES IN LAW, IN ARTS AND IN SCIENCE WHO ARE NOT MEMBERS OF THE SENATE.**

BOOTHBY, BRINSLEY CHARLES, LL.B.	...	...	28th July, 1886
MELROSE, ALEXANDER, LL.B.	...	...	28th July, 1886
WHITINGTON, FREDERICK TAYLOR, LL.B.	...	...	28th July, 1886
ROBIN, CHARLES ERNEST, B.A.	...	...	28th July, 1886
HARRIS, FRANK DIXON, LL.B.	...	...	22nd December, 1886
SEWELL, CHARLES EDWARD, LL.B.	...	...	22nd December, 1886
WEBB, NOEL AUGUSTIN, LL.B.	...	...	22nd December, 1886

TRELEAVEN, WALTER, B.A.	22nd December, 1886
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
HOLLIDGE, DAVID HENRY, B.A.	21st December, 1887
ANDREWS, RICHARD BULLOCK, B.A.	21st December, 1887
WILLIAMS, MATTHEW, B.A.	21st December, 1887
MARTEN, ROBERT HUMPHREY, M.B.	12th January, 1888
BOLLEN, CHRISTOPHER, M.B.	12th June, 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
LEMESSURIER, THOMAS ABRAM	19th December, 1888

UNDERGRADUATE WHO HAS PASSED THE FINAL EXAMINATION FOR THE DEGREE OF LL.B.

GILES, EUSTACE 1888

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.

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 :

JOSEPH COOKE VERCO, M.D. (London), F.R.C.S. (Eng.)
EDWARD WILLIS WAY, M.B. (Edin.), M.R.C.S. (Eng.)
JOHN DAVIES THOMAS, 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.)

COMMITTEES OF THE COUNCIL FOR 1889.

Education Committee.

THE CHANCELLOR
THE VICE-CHANCELLOR
THE BISHOP OF ADELAIDE
DR. PATON
DR. BARLOW
MR. HARTLEY
DR. STIRLING
REV. W. R. FLETCHER
DR. COCKBURN
MR. F. AYERS.

The Finance Committee.

THE CHANCELLOR
THE VICE-CHANCELLOR
MR. EVERARD
MR. MURRAY
MR. HARTLEY
DR. BARLOW.

The Library Committee.

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

THE FACULTIES.

THE FACULTY OF LAW.

THE CHANCELLOR
THE VICE-CHANCELLOR
FREDERICK AYERS, M.A. (Dean)
WILLIAM BARLOW, LL.D., B.A.
F. W. PENNEFATHER (Lecturer on Laws), B.A., LL.M.

THE FACULTY OF MEDICINE.

THE CHANCELLOR
THE VICE-CHANCELLOR
SIR JOHN DOWNER
MR. VON TREUER
DR. COCKBURN
DR. VERCO (Dean)
DR. STIRLING
PROFESSOR WATSON
PROFESSOR RENNIE
PROFESSOR TATE
DR. THOMAS
DR. GARDNER
DR. WAY
DR. CLELAND
DR. SYMONS
DR. LENDON
DR. PATERSON
DR. GILES
DR. POULTON

FACULTY OF ARTS.

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

FACULTY OF SCIENCE.

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

REGISTRAR.

JOHN WALTER TYAS

CLERK OF THE SENATE.

THOMAS AINSLIE CATERER, B.A.

UNDERGRADUATE STUDENTS: SESSION 1888.

LL.B. DEGREE.

Benny, Benjamin
Bertouch, Rudolph Paul Albrecht von
Bloxam, Charles a'Court
Bonnin, Alfred
Cleland, Edward Erskine
Cox, Arthur Percival
Dempsey, Richard Francis
Giles, Eustace
Gwynne, Iltyd Gordon
Heuzenroeder, William Eberhard
Hopkins, Alfred Nicholas
Horn, Edward Palmer
Hourigan, Richard Edward
Ingleby, Rupert
McDougall, James Gilbert

Magarey, William Ashley
Mellor, James Taylor
Mitchell, Samuel William
Piper, Arthur William
Price, Arthur Jennings
Rounsevell, Horace Vernon
Sabine, Ernest Maurice
Scott, Douglas Comyn
Tuxford, Albert Joseph
Upton, Henry
Valentine, Harry
Warren, Thomas Hogarth
Whitby, Percy Edward Robert
Wright, Lewis Garner
Wyatt, Frank Addison

M.B. DEGREE.

Beyer, Franz Victor
Cavenagh, Wentworth Rowland
Cudmore, Arthur Murray
Embling, Austin Henry Chinnock
Fowler, Laura Margaret
Frampton, Walter John
Gibbes, Alexander Edward
Giles, Henry O'Halloran
Goldsmith, Frederick
Good, Joseph Ernest
Gunson, John Bernard
Hoche, Edward

Hope, Charles Henry Standish
Lynch, Arthur Francis Augustin
Magarey, Cromwell
Mead, Cecil Silas
Morgan, Alexander Mathieson
Moule, Edward Ernest
Powell, Henry Arthur
Robin, Vincent John
Seabrook, Leonard Llewellyn
Shanahan, Patrick Francis
Verco, William Alfred

B.A. DEGREE.

Bonin, William James
Burgess, Thomas Martin
Butler, Frederick Stanley
Devenish, Albert Sidney
Doolette, Dorham Longford
Fischer, George Alfred
Fletcher, Lancelot Kohry
Frewin, Thomas Hugh
Hone, Frank Sandland

Hopkins, Alfred Nicholas
Knight, Percy Norwood
Le Messurier, Thomas Abram
Marryat, Ernest Neville
Moore, William Alfred
Solomon, Judah Moss
Stow, Francis Leslie
Wyllie, Alexander

B.Sc. DEGREE.

Clark, Arthur Howard
Farr, Clinton Coleridge
Fletcher, Alfred Watkis
Goyder, Alexander Woodroffe
Haycraft, Edith Florence
Isbister, James Linklater Thomson
Kirby, Mary Maud

Lawrance, David Hermann
Solomon, Susan Selina
Trehy, Annie Louise Virginia
Turner, Ernest Frederick
Wheatley, Frederick William
Wright, Elizabeth Leslie

MUS. BAC.

Bosch, Dorothea Elise
Bundey, Ellen Milne
Cave, Ellen May
Davis, Hester Lilian
Hamilton, Mary Coulls
Jones, Thomas Henry
Law, Emily Augusta
Loessel, Rhea Marie
Mann, Elizabeth Frances
Mitchell, Ernest Edwin
Moore, Anna Theresa
Pybus, William Richard
Püttmann, Franziska Helena Marie

Richardson, Edith Maud
Sanders, William
Simpson, Mary King
Stenhouse, Rosa
Tims, Mary
Tilly, Florence Mary
Townsend, Alice Annie
Watson, Edith Mary
Way, Florence Jane Elizabeth
Way, Kate Isabel
Whittell, Anna Maria Prince
Williams, Alice Coombe
Winwood, Susan Ann

STUDENTS NOT STUDYING FOR A DEGREE: SESSION 1888.

LAW.

Bertram, Robert Matthew
Crompton, Henry Woodhouse
Davis, Arthur Colin
Durstun, Sidney Bridle
Foster, Henry Edgar
Greer, George Andrew
Hargrave, Joshua Addison

Michell, George Francis
Northmore, John Alfred
Rowley, Spencer Toler
Stockdale, William John
Wigley, Henry Vandeleur
Wooldridge, William Phillips
Wright, Charles Joseph Harvey

LATIN AND GREEK.

Gardner, Louisa

ENGLISH LANGUAGE, &c.

Benham, Agnes

| Cox, Catherine Haydon

PHYSICS.

Duke, Francis
George, Madeline Rees
Griffiths, Richard Fletcher
Jenner, Charles James

O'Dea, Patrick
Stacey, George
Stewart, James

BOTANY.

Coleman, Frederick

APPLIED MATHEMATICS.

Neel, George Frederick

GEOLOGY.

Murray, Louisa

MUSIC.

Loessel, Joanna Dorothea Julia

Taylor, John Noblett

PHYSIOLOGY.

Austin, Matilda Beatrice
Bayley, Charlotte Sarah
Billing, Minnie Mabel
Chesterman, Clara Annetta
Coleman, Frederick
Dowes, Sarah Jane
Duke, Francis
Edwards, Mary Victoria
Espie, Annie
Eyre, Catherine Louisa
Galle, Richard George
Glyde, Mary Anstice
Hammat, John Stuart
Hardy, Inez Mary
Hartnett, Thomas Vincent
Hicks, Kate May
Hodge, Emily
Hooper, John Britannus
Inglis, Sarah Beatrice Maude
Jenner, Charles James

Jones, Mary
Kleemann, Howard Albert
Loessel, Rhea Marie
McAnulty, Blanch Elizabeth
McCaffrey, Bernard Ambrose
Manifold, Annie Alice
Mead, Blanche Annie
Middleton, Sarah Eades
Munro, Ellen Jessie
Nicols, Marie
O'Dea, Patrick
Peake, Mary Charlotte
Polson, Elizabeth
Sim, Helen
Simpson, Alfred Edward
Stacey, George
Stewart, James
Townsend, Alice Annie
Trezise, Alfred
Winwood, Susan Ann

PRACTICAL PHYSIOLOGY.

McInerney, Thomas

Roach, Bertie Smith

PRACTICAL CHEMISTRY.

Hawker, Edward William
Owen, Charles Arthur

Tietkins, William Henry
Young, Edward Burney

BIOLOGY.

Fuller, William

Simpson, Alfred Edward

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 Alexander	2 1877, D.	Bollen, Percival	3 1885, D.		
Adams, Sophia Sarah ...	1 1882, M.	Bonnin, Alfred	3 1886, D.		
Adamson, David Beveridge	2 1877, D.	Bonnin, William James	1 1884, D.		
Alexander, Elizabeth Jane	1 1884, M.	Botten, Joseph	2 1880, D.		
Allen, Eleanor Alice ...	1 1884, D.	Boucaut, Ray	3 1887, M.		
Allen, James Bernard ...	1 1886, D.	Bronner, Carl	3 1887, M.		
Allworden von, Louis ...	2 1886, M.	Brown, Robert Home ...	2 1880, M.		
Anderson, James	3 1884, M.	Burgess, Alfred Pickford	2 1881, M.		
Anderson, Tressilian George	2 1884, D.	Burnard, Richard Thomas	1 1877, D.		
Andrews, Henry Louis ...	2 1877, D.	Burton, Alfred	2 1881, D.		
Andrews, Walter Frederick	1 1882, D.	Butler, Frederick Stanley	2 1885, D.		
Angel, Alfred Henry ...	3 1885, D.	Carlin, Ernest Herbert ...	3 1882, D.		
Anthony, John	2 1878, D.	Casely, William Arthur Linthorne	3 1883, D.		
Ayliffe, Ethel Adelaide ...	3 1886, M.	Castle, Robert Andrew Carr	2 1880, D.		
Bach, John Edmund	2 1881, D.	{ Caterer, Herbert Auburn	2 1877, D.		
Bagot, Sophie Rose	3 1885, D.	{ Caterer, Herbert Auburn	2 1881, D.		
Baker, John Richard ...	1 1882, D.	Cave, Ellen May	3 1886, D.		
Balthasar, Rudolph	2 1879, D.	Cave, Lucy Grierson ...	3 1887, M.		
Barnes, Charles Henry ...	2 1885, D.	Cavenagh, James Gordon	3 1882, D.		
Basedow, Bernhard	2 1886, D.	Cavenagh, Wentworth Rowland	2 1885, D.		
Bayley, William Reynolds	2 1881, D.	Chapple, Frederick John	1 1887, M.		
Beare, Charles Alston ...	2 1881, M.	Charlick, Harry Walter ...	1 1886, D.		
Beaumont, Charles Saultmarsh	2 1877, D.	Chewings, Henry	1 1882, M.		
Belt, Francis Walter ...	1 1878, D.	Clark, Arthur Howard ...	1 1886, D.		
Benham, Loui	3 1885, D.	Clark, Charles	1 1877, D.		
Beninga, Carl Lautzius ...	1 1879, M.	Cleave, John	3 1886, D.		
Bennett, Thomas Charles	2 1880, D.	Cleland, Edward Erskine	3 1885, D.		
Benny, Benjamin	3 1886, D.	Clindening, Frederick Talbot Driffeld	2 1878, M.		
Berry, George Augustus ...	2 1881, D.	Cock, Nicholas John	1 1881, D.		
Bertouch von, Rudolph Paul Albrecht	2 1886, M.	Collier, Mary	3 1884, D.		
Bertram, Robert Matthew	1 1883, D.	Collison, Arthur Gore ...	2 1884, D.		
{ Beyer, Franz Victor ...	2 1884, D.	Colton, Edwin Blacker ...	1 1876, Sept.		
{ Beyer, Franz Victor ...	1 1885, D.	Colton, Frank Septimus ...	1 1880, D.		
Bishop, John Henry	2 1882, D.	Cook, Alfred Edward	2 1886, D.		
Bloxam, Charles A'Court ...	3 1887, M.	Cook, Edith Agnes	1 1877, D.		
Boase, Granville	3 1884, D.	Cooper, Henry Kingsbury	1 1884, D.		
Bollen, Frederick James	1 1876, Sept.	Cornish, Ernest Harry ...	2 1884, D.		
		Cotton, William Mitchell	2 1882, D.		
		Counsell, Frank Hedley	2 1880, D.		

	Class.	Year & Month.
Counsell, Walter Samuel	2	1879, D.
Counter, Francis William	2	1882, D.
Cox, Arthur Percival	3	1886, D.
Cox, Charles Bagster	2	1879, M.
Crase, Thomas Vivian	2	1878, D.
Crompton, Henry Woodhouse	2	1885, D.
Cross, Katie Isabel	1	1886, D.
Cruickshank, Percival	2	1886, D.
Cruickshank, Robert	2	1880, M.
Cudmore, Arthur Murray	2	1887, M.
Currie, Thomas	1	1880, D.
Daniels, Marian Lucy	3	1885, D.
Davenport, Cecil John	1	1879, D.
Davies, Alfred Joseph	2	1882, M.
Davies, Arthur Colin	3	1887, M.
Denny, Mary Katherine	3	1885, D.
Dickson, Walter Ferrier	3	1884, D.
Doolette, Dorham Longford	1	1886, D.
Dougall, Jessie Brown	3	1886, D.
Downer, Frank Hagger	3	1883, D.
Downer, Marion Lane	1	1883, D.
Drew, John	1	1886, D.
Driffield, George Carus	1	1879, D.
Driffield, Vero Carus	2	1878, M.
Duence, Richard	1	1883, D.
Duncan, Andrew William Bartlett	2	1879, D.
Duncan, John	2	1881, M.
Dunn, Eustace Andrew	3	1884, D.
Durston, Sydney Bridle	3	1884, M.
Edmunds, Arthur James	2	1881, M.
Ellershaw, Charlotte Jane	3	1883, D.
Espie, James	2	1879, M.
Evan, Dudley Gwynne	2	1880, D.
Evan, Griffith Mostyn	2	1880, M.
Evan, Lawrence William	2	1881, D.
Fallon, James Patrick	2	1884, M.
Farrow, Edmund	2	1881, D.
Field, Henry Newland	2	1881, D.
Finlayson, John Harvey	2	1884, D.
Finlayson, William Henry	1	1879, D.
Fletcher, Alfred Watkis	2	1884, D.
Fletcher, Lancelot Kohry	3	1884, D.
Foster, Henry Edgar	3	1885, M.
Fotheringham, George	2	1877, D.
Fowler, Margaret Laura	1	1886, D.
Frewin, Thomas Hugh	1	1887, M.
Fuller, Henry Ernest	2	1884, D.

	Class.	Year & Month.
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.
Goldsmith, Frederick	2	1883, D.
Good, Joseph Ernest	3	1887, M.
Goodhart, Albert Edward Deverell	3	1885, D.
Goodhart, William Woide	1	1879, D.
Goyder, Alick Woodroffe	1	1880, D.
Graham, Lena Henrietta	3	1887, M.
Greer, George Andrew	3	1885, M.
Gunson, John Bernard	1	1886, D.
Gwynne, Illtyd 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.
Hone, Frank Sandland	2	1885, D.
Hopkins, Louisa Guelma	3	1884, D.
Horn, Edward Palmer	3	1885, D.

	Class.	Year & Month.		Class.	Year & Month
Hourigan, Richard	...	2 1887, M.	Longson, George Darling	2	1883, M.
Howell, Horace	...	3 1886, M.	} Longson, Henry Abraham	...	2 1881, D.
Howell, Willoughby				...	...	2 1882, D.
Alexander Christmas	...	3 1885, D.	} Lynch, Arthur Francis	...	3 1884, M.
Hunt, Henry William	...	2 1880, D.		...	...	2 1884, D.
Hutchinson, Orlando			} Lynch, Arthur Francis	...	3 1884, M.
Bingham	...	1 1880, M.		...	...	2 1884, D.
Hutchison, William	John	3 1882, D.			
Hynes, Timothy	Augustine	...			
	...	3 1883, D.			
Iliffe, James Drinkwater	3	1885, D.	Mack, Albert Hessel	...	2 1878, D.
Ingleby, Rupert	...	1 1886, D.	McCoy, Francis Sander-	...	2 1879, D.
			son	...	2 1879, D.
James, Johnson	...	2 1876, Sept.	McDougall, James Gil-	...	1 1886, D.
Jefferis, James Edding-	...	2 1876, Sept.	bert	...	2 1881, D.
ton	...	2 1883, D.	McNeil, Andrew	...	2 1881, D.
Jeffrey, Florence	...	2 1883, D.	Magarey, Cromwell	...	2 1881, D.
Johns, Charles	...	2 1878, D.	Magraith, Alfred Edward	1	1885, D.
Joyner, Frederick Allen	2	1880, D.	Manning, Arabella Al-	...	3 1886, D.
{ Joyce, Alfred Fleming	3	1882, D.	dersey	...	3 1886, D.
{ Joyce, Alfred Fleming	1	1885, M.	Mantell, Walter Wood-	...	1 1878, M.
Joyce, Mary Amelia	...	1 1884, D.	roffe	...	2 1884, M.
			Martin, Susan Frances	...	2 1880, D.
Kay, Frederick Walter	1	1887, M.	May, Guy Morphett	...	2 1881, D.
Kelly, Florence	...	2 1884, D.	Mead, Cecil Silas	...	2 1884, D.
Kelly, Heber Corlett	...	2 1878, D.	{ Mead, Gertrude Ella	...	2 1885, M.
Kelly, Reginald Chalmer	3	1886, D.	{ Mead, Gertrude Ella	...	1 1884, M.
Knight, Mary Adela			Mead, Lillian Staple	...	1 1882, M.
McCulloch	...	1 1882, D.	Meyrick, Morgan	...	2 1881, M.
			Michell, George Francis	...	3 1885, D.
Langsford, William Al-	...	2 1876, Sept.	Millard, Annie Eliza	...	1 1877, D.
fred	...	2 1887, M.	Milne, James	...	3 1885, D.
Lathlean, Fletcher	...	2 1876, Sept.	Mitchell, Samuel James	3	1886, D.
Lathlean, Richard Hed-	...	2 1876, Sept.	Mitton, Victoria Alice	...	3 1878, D.
ley	...	2 1876, Sept.	Monk, Aquila	...	3 1885, D.
Laughton, Robert Wat-	...	1 1885, D.	Moore, William Alfred	...	2 1878, M.
son	...	3 1886, D.	Morcombe, Thomas Yel-	...	2 1884, D.
Lawrance, David Her-	...	1 1880, D.	land	...	2 1879, D.
Laycock, William	...	1 1879, D.			
Leader, Thomas Mort-	...	1 1879, M.	Neale, William Lewis	...	2 1878, D.
lock	...	3 1886, D.	Newman, George Gough	...	2 1884, D.
Lehmann, August	...	2 1885, D.	Nicholls, William Per-	...	2 1884, D.
Leighton, John Joseph	...	2 1882, M.	cival	...	2 1876, Sept.
Leitch, William Angus	...	2 1882, M.	Niesche, Frederick Wil-	...	2 1880, D.
Lindsay, Arthur Regi-	...	1 1882, D.	liam	...	1 1878, M.
nald Feydel	...	1 1882, D.	Nootnagel, Albert Her-	...	1 1879, M.
Linke, Friedrich Wil-	...	2 1885, D.	mann	...	2 1880, D.
helm	...	2 1877, D.	Norman, Arthur Edward	1	1878, M.
Liston, Edith Mary Han-	...	2 1878, D.	Norman, William	...	2 1882, D.
nah	...	1 1886, D.			
Lloyd, Henry Sanderson	2	1877, D.	Oldham, Ernest William	2	1879, M.
Lloyd, Joseph Dawkins	2	1878, D.	Oldham, Harry Ross	...	2 1882, D.
Lloyd, Martha Hessell	...	1 1886, D.			

Class. Year & Month.		Class Year & Month.	
Oldham, Reginald Vau-	...	Severn, Claud	... 3 1886, M.
tin	... 2 1880, D.	Shanahan, Patrick Fran-	...
O'Halloran, Thomas	...	cis	... 3 1887, M.
Shildham	... 2 1881, D.	Shapter, William Thomas	... 2 1883, M.
Paech, Johann Friedrich	...	Shepherd, Arthur Ed-	...
Wilhelm	... 2 1881, D.	mund	... 3 1885, D.
Paltridge, William	...	Shepherd, Florence	...
Hodgson	... 2 1886, D.	Nightingale	... 3 1887, M.
Parker, Ralph Frederick	... 3 1883, D.	Shepley, Harry	... 3 1882, D.
Parsons, Stephen	... 2 1877, D.	Shorney, Mabel	... 2 1887, M.
Pearce, Arthur George	... 2 1877, D.	Shuttleworth, Henry	...
Piper, Arthur William	... 1 1880, D.	Howard	... 2 1877, D.
Plumstead, Arthur Wil-	...	Sibley, Nicholls Joseph	... 2 1881, D.
liam Henry	... 3 1885, M.	Simpson, Alfred Edward	... 1 1885, D.
Poole, Elsie Allen	... 3 1885, D.	Smith, Eristoun Barr	... 2 1887, M.
Powell, Henry Arthur	... 3 1884, D.	Smyth, Robert	... 3 1882, D.
Praagst, Lionel Francis	... 2 1880, D.	Snell, John Henry	... 1 1882, D.
Price, Arthur Jennings	... 3 1886, M.	Solomon, Susan Selina	... 2 1884, D.
Prior, Samuel Henry	... 3 1883, D.	Stapleton, Frank Law-	...
Püttmann, Franziska He-	...	rence	... 2 1881, D.
lena Marie	... 2 1884, D.	Stephens, Albert Edward	... 3 1886, D.
Renner, James Davie	... 2 1878, D.	Stewart, Arthur	... 2 1885, M.
Rigby, Ada	... 3 1884, M.	Stockdale, William John	... 3 1884, D.
Rischbieth, Henry Wills	... 3 1886, D.	Stow, Ernest Alfred	... 2 1881, D.
Robertson, James Robert	... 3 1882, D.	Stow, Reginald Marshall	... 2 1879, D.
{ Robin, Arthur Falconer	... 3 1884, M.	Stow, Francis Leslie	... 3 1885, D.
{ Robin, Arthur Falconer	... 1 1885, M.	Swan, Alfred Mildred	... 3 1885, M.
Robin, Septimus Sydney	... 2 1884, D.	Swan, John Gilmore	... 2 1886, D.
Robinson, Robert Thom-	...	Swan, William Robert	... 3 1883, D.
son	... 1 1883, D.	Tassie, William	... 3 1887, M.
Rogers, Oliver Herbert	... 2 1880, D.	Teichelmann, Ebenezer	... 1 1877, D.
Rollison, Thomas Arthur	... 3 1886, M.	Tennant, John	... 2 1881, M.
Rounsevell, Horace Ver-	...	Thiele, Max Hermann	... 2 1883, M.
non	... 3 1883, D.	Thomas, Evan Kyffin	... 2 1885, M.
Rowe, Arthur Brisbane	...	Threlfall, Arthur Cres-	...
Stevens	... 2 1879, D.	well	... 2 1879, M.
Rowett, Joseph Charles	... 2 1882, D.	Tilly, Arthur Lindsey	... 3 1885, D.
Rowley, Spencer Toler	... 3 1884, M.	Tomkinson, Henry Pal-	...
Sabine, Ernest Morris	... 3 1884, D.	merston	... 2 1880, D.
Samuel-Davis, Joseph	...	Torr, William George	... 1 1877, D.
King	... 3 1883, D.	Trehy, Annie Louise Vir-	...
Sandover, Alfred	... 1 1881, D.	ginia	... 2 1886, D.
Sanderson, Francis Vil-	...	Treleaven, Nicholas John	...
liers	... 2 1879, D.	Cole	... 2 1885, D.
Scammell, Francis	...	Treuer, Percy Conradin	... 2 1881, D.
George	... 2 1882, M.	Tuckwell, Charles James	... 3 1886, D.
Scrymgour, Bernard Vin-	...	Turner, Sydney Morris	... 2 1877, M.
cent	... 2 1880, D.	Tuxford, Albert Joseph	... 3 1883, D.
Seabrook, Leonard Lle-	...	Uffindell, Henry Walter	... 2 1879, M.
wellyn	... 2 1883, D.	Valentine, Charles	...
Selby, Charles	... 2 1877, D.	Franklyn	... 2 1879, D.
Sells, Caroline Ellen	... 2 1883, D.	Valentine, Harry	... 2 1887, M.

	Class.	Year & Month.		Class.	Year & Month.
{ Verco, William Alfred	2	1885, D.	Wilkinson, Alfred	... 2	1881, M.
{ Verco, William Alfred	2	1886, M.	Wilkinson, Frank Merrett	... 3	1886, D.
Walker, Jeannie Miller Campbell	... 2	1885, D.	Williams, Frances Elizabeth	... 1	1880, D.
{ Warren, Frederick	...		Williams, Llewellyn Andrew	... 2	1877, M.
{ William	... 3	1882, D.	Wilson, Algernon Theodore King	... 2	1880, D.
{ Warren, Frederick	...		Wilson, Charles Stanley	1	1880, M.
{ William	... 2	1883, D.	Wood, Stanley Neville...	2	1885, D.
Warren, John Campbell	2	1883, D.	Woods, Julian Edmund	2	1880, M.
Warren, Thomas Hogarth	1	1884, D.	Woodridge, William Phillips	... 3	1884, D.
Welbourn, Albert Edward	... 2	1878, D.	Wright, Charles Joseph Harvey	... 2	1881, M.
Wells, Alfred James	... 2	1876, Sept	Wright, Charles Theodore	... 2	1884, D.
West, William Arthur	... 2	1884, M.	Wright, George Edward Henry	... 3	1883, D.
Wheatly, Frederick William	... 1	1887, M.	Wyatt, Frank Addison	... 3	1886, D.
Whitby, Percy Edward Robert	... 3	1885, M.	Young, Walter James	... 1	1886, D.
White, Arthur Graham	3	1885, M.			
White, John	... 2	1878, D.			
Wigley, Harry Vandeleur	... 3	1884, D.			

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

	Class.	Year & Month.		Class.	Year & Month.
Adamson, Albert Stanley	3	1888, D.	Conigrave, Berkley Fairfax	... 3	1887, D.
Adamson, Ross Fifeshire	3	1887, D.	Corbin, Cecil	... 3	1888, D.
Angel, Walter	... 2	1887, D.	Corbin, Hugh Burton	... 3	1888, D.
Austin, Matilda Beatrice	... 2	1888, D.	Cruickshank, Constance May	... 3	1888, D.
Beare, Edwin Arthur	... 3	1888, D.	Cotton, Edward Witherage	... 3	1887, D.
Benham, Constance Mary	... 3	1888, D.	Cottrell, Isabel Roberta	3	1887, D.
Benham, Edward Warner	... 3	1888, D.	Cottrell, Walter Pearce	2	1887, D.
Benham, Ellen Ida	... 2	1888, D.	Cox, Katherine Haydon	3	1887, D.
Birks, Raymond	... 3	1888, D.	Cruickshank, Lilian Alice	3	1887, D.
Bonnin, Francis Josiah	2	1888, D.	Dempster, William Edward	... 3	1887, D.
Burnett, Maude Elizabeth	... 2	1887, D.	Eimer, Emmie Clara Georgina	... 2	1887, D.
Bathurst, Henry Christie	3	1887, D.	Eimer, Herman	... 2	1888, D.
Carroll, William	... 3	1887, D.	Evans, Arthur Ernest Herbert	... 2	1888, D.
Casey, Jeremiah William	3	1887, D.	Fowler, David	... 3	1887, D.
Cavenagh, Wentworth Roland	... 1	1887, D.			
Clark, Albert Edward	... 3	1887, D.			
Claxton, Elsie Mabel	... 1	1888, D.			

Class. Year & Month.	Class. Year & Month
Gibbes, Alexander Edward ... 3 1887, D.	Marlow, Alfred Cleveland ... 2 1888, D.
Goode, Arthur ... 3 1887, D.	Mellor, Edward Albert Dawson ... 3 1887, D.
Gray, Jane Lamont ... 3 1887, D.	Miley, Reginald Horace ... 3 1888, D.
Hague, Percy ... 3 1888, D.	Miller, Florence ... 3 1887, D.
Hamilton, Albert Edwin ... 3 1888, D.	Moroney, Joseph John ... 3 1887, D.
Haslam Ernest Bailey ... 3 1887, D.	Muecke, Dora ... 3 1888, D.
Haslam, Joseph Auburn ... 3 1887, D.	Muller, Charlotte Mary ... 3 1888, D.
Haycraft, Edith Florence ... 3 1887, D.	Oldham, Alfred Mulville ... 3 1887, D.
Henderson, Arthur George Morphett ... 3 1888, D.	Parsons, Herbert Angas ... 3 1888, D.
Heyne, Agnes Marie Johanna ... 1 1887, D.	Penny, Evelyn Emma ... 3 1887, D.
Heyne, Laura Olga Hedwig ... 2 1888, D.	Richards, Joseph Spencer ... 3 1887, D.
Hill, Herbert Edward ... 3 1888, D.	Sanders, William ... 3 1887, D.
Hone, Gilbert Bertram ... 3 1887, D.	Sangster, John Ikin ... 3 1888, D.
Howchin, Stella ... 1 1888, D.	Shorney, Ellen Gertrude ... 3 1888, D.
Irwin, Henry Offley ... 3 1888, D.	Smith, Julian Augustus Roman ... 1 1888, D.
Isbister, James Linklater Thomson ... 2 1887, D.	Spehr, Carl Louis ... 2 1887, D.
Joyner, Alfred Ernest ... 3 1887, D.	Steele, William ... 2 1888, D.
Kelsey, Rowland Marcus ... 3 1888, D.	Stockdale, Annie Rosina ... 2 1887, D.
Kirby, Mary Maude ... 3 1887, D.	Stow, Edith Mary ... 3 1887, D.
Lang, William Alfred Westall ... 3 1888, D.	Taylor, Harry Samuel ... 3 1888, D.
Laurie, Ebenezer Curtis ... 3 1888, D.	Thomas, Isabel Dora ... 3 1888, D.
Loessel, Rhea Marie ... 3 1888, D.	Townsend, Alice Annie ... 3 1888, D.
McCarthy, Walter James ... 3 1887, D.	Trüdinger, Walter ... 1 1888, D.
McKenzie, Margaret Janet ... 3 1888, D.	Wadey, Walter Henry ... 3 1888, D.
McNamara, James Henry ... 3 1887, D.	Weinrich, Joseph Hermann ... 2 1887, D.
Maley, Lily ... 3 1888, D.	Weld, Mary Eleanor ... 3 1887, D.
	Whittell, Anna Maia Prince ... 3 1888, D.
	Wilson, William Reid ... 3 1887, D.
	Winnall, John Edward Hyde ... 3 1888, 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.

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.

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.

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.”

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

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.

Of the Angas
Engineering
Exhibitions.

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.

Notice of entry
and fee for
Scholarship
and Exhibition

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.

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.

23. 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 _____, 188____, 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 ceremonies 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 12TH OF MARCH AND 10TH OF SEPTEMBER, 1889.

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

1. *READING*, and *WRITING* FROM *DICTIONARY*.
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 1s. 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, 1889.

1. ENGLISH.

(a) Outlines of the History of England.

(b) English Literature.

Macauley—Lays of Ancient Rome.

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

The following synopsis includes the various branches of the subjæc 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—*Catiline Orations I. and II.*, edited by A. S. Wilkins (Macmillan).

3. GREEK.*

Xenophon—Agesilaus, by R. W. Taylor (Rivingtons).

4. FRENCH.*

Souvestre—Un philosophe sous les toits, by Stievenard (Longmans).

5. GERMAN.*

Grimm—Kinder und Hausmarchen, selected by G. E. Fasnacht (Macmillan).

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*—

Laws of Gases; Chemical nomenclature and formulæ. Preparation and properties of the non-metallic elements and their simpler compounds, *selenium* and *tellurium* excepted.

Text Book—Roscoe's Elementary Lessons in Chemistry (Macmillan & Co.).

(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, 1889, AND FOR THE SPECIAL
EXAMINATION IN MARCH, 1890.

DIVISION A.

1. ENGLISH HISTORY AND LITERATURE.

(a) *History of England*—The War of American Independence.

Text Book—The War of American Independence, by J. M. Ludlow (Epochs of English History). Students are also recommended to refer to the Students' Hume.

(b) *English Literature*—Burke's two speeches on American Independence; edited by Goldwin Smith (Clarendon Press).

Scott—Lady of the Lake.

2. LATIN.*

Livy—Book XXII.

Roman History—Macmillan's Primer.

3. GREEK.*

Euripides—Alcestis.

Greek History—Macmillan's Primer.

4. FRENCH.*

Merimée—Colomba (Rivington).

Molière—Le Misanthrope.

French History—Macmillan's Primer.

5. GERMAN.*

Townson's Second German Reader—Die Blinden and Die Entscheidung bei Hochkirch.

Schiller—Die Jungfrau von Orleans.

German History—Simes' (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 Trigonometry 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.

9. 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.

Chemical nomenclature and formulæ. Classification of the elements.

An elementary knowledge of the Chemistry of the following elements and their simpler compounds:—The *Non-metallic Elements* (*Selenium* and *Tellurium* excepted), and *Potassium, Sodium, Calcium, Barium, Magnesium, Zinc, Lead, Silver, Copper, Mercury, Aluminium, Manganese, Iron, Chromium, Tin, Arsenic, Antimony, Gold, Platinum.*

Text book—Roscoe's *Elementary Lessons in Chemistry* (Macmillan & Co.).

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. 25.	Tuesday, Nov. 26.	Wednesday, Nov. 27.	Thursday, Nov. 28.	Friday, Nov. 29.
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. 25.	Tuesday, Nov. 26	Wednesday, Nov. 27.	Thursday, Nov. 28.	Friday, Nov. 29.	Monday, Dec. 2.
9-11	English Literature.	Pure Ma- thematics.	Physiology.	Physics.	Pure Mathematics	Greek.
10-1			Botany.			
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).....

Dated this _____ day of _____, 188 .
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).

Compayré'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.
- First Year. IV. At the First Examination every candidate shall be required to 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.*
- Second Year. V. At the Second Examination every candidate shall be required to satisfy the Examiners in each of the following subjects :—
 1. *Latin.*
 2. *Greek.*
 3. *Elementary Applied Mathematics.*
 4. *Logic.*
- 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. *Classics and Ancient History.*
 2. *Mathematics.*
 3. *Mental and Moral Science.*
 4. *Modern Languages, Literature, and History.*
- Honours 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 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.

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. Class Lists.

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

	£	s.	d.	Fees.
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 subject ...	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 188____, for examination in the undermentioned subjects, viz. :

- | | |
|----|----|
| 1. | 4. |
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| 3. | |

I send herewith the prescribed certificates of attendance at lectures.

Dated this _____ day of _____ (Signed)....., 188____.

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, 1889.

FIRST YEAR'S COURSE.

LATIN.

Pass.

Cicero—Pro Cluentio.
Ovid—Fasti. Book I.

Additional for Honours.

Ovid—*Heroides*, viz.—Penelope Ulixi—Ænone Paridi—Dido Æneac—Deianira Herculi—Ariadne Theseo—Laodamia Protestilao. Palmer's edition (Dublin University Press).
Tacitus—Histories. Book I.

Prose Composition for both Pass and Honours.

GREEK.

Pass.

Plato—Crito and Apologia.
Homer—Iliad. Book I.

Additional for Honours.

Demosthenes—In Meidiam.
Sophocles—Ajax.

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.
Chaucer—Prologue to the Canterbury Tales (Clarendon Press).
Shakespeare—Macbeth.
Tennyson—In Memoriam.

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.

Ovid—*Heroides*, viz.—*Penelope Ulixi*—*Ænone Paridi*—*Dido Æneae*—*Deianira Herculi*—*Ariadne Theseo*—*Laodamia Protesilao*.
Palmer's edition (Dublin University Press).

Tacitus—*Histories*. Book I.

Additional for Honours.

Cicero—Jean's Selections from Cicero's Letters (Macmillan).

Cicero—*Pro lege Maniliã*.

Catullus, Tibullus, and Propertius—Select Poems of, by A. H. Wratislaw and J. N. Sutton (Deighton, Bell, & Co.).

Prose Composition for both Pass and Honours.

GREEK.

Pass.

Demosthenes—*In Meidiam*.

Sophocles—*Ajax*.

Additional for Honours.

Thucydides—Book II.

Homer—*Iliad*. Books IX. and XVIII.

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.

LOGIC.

Pass.

Fowler. *Deductive Logic*.

Fowler. *Inductive Logic*. (Clarendon Press.)

Thompson. *Laws of Thought*. Parts I., II., and III.

Additional for Honours.

Baines—*Deductive Logic*.

Baines—*Inductive Logic*.

Bacon—*Advancement of Learning*.

THIRD YEAR'S COURSE.

CLASSICS AND ANCIENT HISTORY.

*Latin.**Pass.*

Cicero—Jean's Selections from Cicero's Letters (Macmillan).

Cicero—*Pro lege Maniliã*.

Catullus, Tibullus, and Propertius—Select Poems of, by A. H. Wratislaw and J. N. Sutton (Deighton, Bell, & Co.)

Additional for Honours.

Tacitus—*Annals*. Book II.

Lucretius—Book VI.

Prose Composition for both Pass and Honours.

Greek.

Pass.

Thucydides—Book II.
Homer—*Iliad* Books IX. and XVIII.

Additional for Honours.

Thucydides—Book VII.
Homer—*Iliad*. Books XXII., XXIII., and XXIV.

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)
Locke's Essay, Introduction to Book I. and Book II.
Dugald Stewart's Outlines of Moral Philosophy.
Butler's Sermons and Essay on Virtue.

Additional for Honours.

Hamilton's Lectures on Metaphysics, Vol. I.
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, Chap. 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, Chap. 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.

Barrau: 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. The following Form of Notice is prescribed :

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 188 , for examination in the following branch, and send herewith the prescribed fee of £ .
 (Signed).....

Dated this _____ day _____ 188 .
 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.

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, 1889, 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.

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.

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.

First Year.

IV. At the First Examination every candidate shall be required to 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.*

Second Year.

V. At the Second Examination every candidate shall be required to 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.*

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. Third Year.

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.

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 188 , for the 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 _____, 188 .
(Signed).....

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, 1889.

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 :—

Elementary Chemistry : Wilson.

Elementary Chemistry : Fownes.

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 in Mathematics.

Elementary Analytical Conics. Elementary Differential and Integral Calculus.

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 :—

Parkinson's Optics.

Heat: Thermometry. Methods of Calorimetry. Conduction of Heat. Radiation and Absorption. First Law of Thermodynamics. The Steam Engine.

Electricity and Magnetism.

Text-book :—

Sylvanus Thompson—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, Dulcitol, Isodulcitol. Dextrose and Laevulose Cane-sugar, Milk-sugar, Cellulose, Starch, Glycogen, Dextrine.

A general knowledge of the principal Compound Ammonias and Organo-metallic bodies.

Cyanogen and its compounds. Cyanic and Cyanuric Acids. Urea and its allies.

Uric Acid. Guanidine. Glycoxyamine. Glycoxyanidine. 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.

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, Umbelliferæ, Compositæ, Goodenoviæ, Campanulaceæ, Epacrideæ, Boraginæ, Scrophulariaceæ, Labiatæ, Solanaceæ, Amarantaceæ, Chenopodiaceæ, Proteaceæ, Coniferæ, 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.

- I. 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 : General theory of Radiation and Absorption, the Law of Exchanges. The Second Law of Thermodynamics. The Dissipation of Energy. Outlines of the Molecular Theory of Gases.

Electricity and Magnetism : Specific Inductive Capacity. Residual charge of the Leyden Jar. Atmospheric Electricity. Electrometers. The theory of Electrical Machines acting by Induction and Convection.

Terrestrial Magnetism, including the methods of observation. Magnetism and Diamagnetism.

The mutual actions of Magnets and Currents. Laws of Induction. Construction of Induction Coils, Magneto-Electric, and Dynamo-Electric Machines, Electromotors. Electric Transmission of Power.

Electrolytic Polarization. Thermo-electricity.

Honours.

A more thorough knowledge of the same subjects.

ADVANCED ORGANIC, INORGANIC, AND PRACTICAL CHEMISTRY.

Pass.

More advanced organic, inorganic, and practical chemistry.

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.

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.

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 considerations.

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.
-

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 articled clerk.
- II. The Examinations shall be held in the first and third terms of 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, 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, 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 criminal).*
 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

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.
- VII. 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.

XIV. The undermentioned fees shall be payable in advance :

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 :

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 articulated clerk, add):

I am articulated 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, 1889, AND MARCH, 1890.

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, 1889, see University Calendar for 1888.

† 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, Chapters I.—V.

† 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, Chap. 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 :

Hearn's Government of England.

Hallam's Constitutional History.

Stubb's Constitutional History and Select Charters.

May's Constitutional History.

Dicey on the English Constitution.

THE LAW OF CONTRACTS.

Text-books recommended :

Pollock on Contracts (latest edition).

Smith's Leading Cases [the cases referring to the Law of Contract].

† Books of reference recommended :

Leake on Contracts.

Anson on Contracts.

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, 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. Stephens' Digest of Criminal Law.

† Books of reference recommended :

Addison's Law of Torts.
Russell on Crimes.
Sir F. Stephens' History of the Criminal Law. Three volumes.

LAW OF PROCEDURE.

(a) Law of Evidence.

Text-books recommended :

Sir F. Stephens' Digest of the Law of Evidence,
Best's Law of Evidence.

† Books 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 1889 :—

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 articulated to practitioners.

And it is further ordered that :

- I. Every such articulated 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 articulated 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 DEGREE OF BACHELOR OF MEDICINE.
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 degree of Bachelor of Medicine, 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.

First Year.

VII. During the First Academical Year students shall be required

- (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.

Second Year.

IX. During the Second Academical Year students shall be required

- (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.
- (h) To attend a course of lectures on Materia Medica.

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*.
5. *Materia Medica*.

XI. During the Third Academical Year students shall be required— Third 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 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 receive instruction in Dentistry from some person approved by the Council.
- (h) To attend diligently *Post Mortem* Examinations at the Adelaide Hospital during six months.
- (i) To attend diligently during nine months the Medical and Surgical Practice of the Adelaide Hospital, both in the wards and out-patients' department.
- (j) 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*.

Fourth Year. XIII. During the Fourth 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 Medicine.
- (d) To attend a course of lectures on Obstetrics.
- (e) To attend a course of lectures on Forensic Medicine.
- (f) To attend diligently *Post Mortem* Examinations at the Adelaide Hospital for six months, during three of which he shall perform them himself.
- (g) 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.

- (h) 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*.
3. *Forensic Medicine*.

XV. During the Fifth Academical Year students shall be required Fifth Year

- (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 perform a course of *Operative Surgery*.
- (f) To attend a course of lectures on *Aural Surgery*.
- (g) To attend a course of lectures on *Lunacy*, and to attend the practice of the Hospitals for the Insane during three months.
- (h) 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.
- (i) 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.
- (j) 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.

(k) 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 subjects he has passed.

XXIII. The following shall be the Fees for each Course payable in advance :—

	£	s.	d.	Lectures and Demonstration Fees.
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	Examination Certificate and Degree Fees.
Fee for each Supplementary Examination	7	10	0	
Fee for a single subject	2	2	0	
Fee for Certificate in having passed in one or more subjects of any examination in the course for the Degree of Bachelor of Medicine	0	5	0	
Fee for the Degree of Bachelor of Medicine	3	3	0	

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 degree of Bachelor of Medicine, I intend to present myself at the Examination in the month of _____ 188 _____; 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.

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

Form of Notice to be sent to the Registrar by Students not studying for Degree 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 188 __, 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.

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

The Regulations concerning the Degree of Bachelor of Medicine allowed on the 16th day of September, 1885, are hereby repealed.

Allowed : 17th November, 1886.

—————
SCHEDULES DRAWN UP UNDER No. XIX. OF THE FOREGOING REGULATIONS.

—————
DETAILS OF SUBJECTS FOR THE ORDINARY M.B. EXAMINATION IN NOVEMBER 1889.

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.

II. 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 :—
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.

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 :—

Elementary Chemistry : Wilson.
Elementary Chemistry : Fownes.

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, Goodenoviæ, Campanulaceæ, Epacrideæ, Boragineæ, Scrophulariaceæ, Labiatæ, Solanaceæ, Amarantaceæ, Chenopodiaceæ, Proteaceæ, Coniferae, Orchidaceæ, Amaryllidaceæ, Liliaceæ, Cyperaceæ, Gramineæ, 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.
Botanic Teaching : Mueller.

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,

Text-books recommended :—

Organic Chemistry : Remsen.

Organic Chemistry : Fownes (latest edition).

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 official 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.
Venereal 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.
The Surgeons' Handbook on the treatment of the wounded in war ;
Esmarch.
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.

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, FOURTH YEAR.

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 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 supported by voluntary contributions extending over a limited period, and not by a permanent 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 *viva 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 188 _____, 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.

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*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 188 _____, for examination in the following
subjects, viz. :

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

I send herewith the prescribed fee of £ _____

Dated this _____ day of _____ (Signed)
188 _____

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, 1889.

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."

Osseley'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
- 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 I.—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. Pfaf 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, $\frac{3}{8}$ -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. VAN—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; Rondlettoo Op. 52
33
- HENSELT, A.—Chant sans Paroles, Op. 33.
- HANDEL—Fantasia in C.
- HARTMANN, J. P. E.—Novelletes, 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-sonaten.
- 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 Polonaise, 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; Polonaise in A, Op. 40, No. 1. Any of the Nocturnes; any of the Valses; 2 Polonaise, Op. 26; Rondo in E flat, Op. 16; Andante and Polonaise in E flat, Op. 21; Polonaise, Op. 53; Impromptu, Op. 66 and 29; any of the Preludes and Masurkas.
- 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; Volkstänze, 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 Pianforte 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; Scherzoete, Op. 31; Intermezzo, Op. 4; Arabeske, Op. 18; Blumenstück, Op. 19; three Romanza, Op. 28; Novellettes, 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 1889.

Subject to the above conditions, it is proposed to hold Evening Classes in the following subjects during the year 1889 :—

	Minimum Number to form a Class.
1. Latin	10
2. Greek	10
3. Mathematics	10
4. Mathematics, Elementary	10
5. Physics	10
6. Inorganic Chemistry	10
7. Mineralogy	10
8. English	{ Number to be fixed by Lecturer.}
9. French	
10. 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, 1889, and applications for admission to it must be made to the Department of Education before the 31st January, 1889.

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.

1887	{	Hone, Frank Sandland
March		Bonnin, William James
	{	Marryat, Ernest Neville
1888		Butler, Frederick Stanley
March	{	Frewin, Thomas Hugh
		Wheatley, Frederick William

Details of the subjects for the University Scholarships' Examination to be held in March, 1890 :—

A. Classics.

LATIN.

Terence—Phormio.

Horace—Odes Books I., II., III., and IV.

Grammar and Composition.

GREEK.

Euripides—Hercules Furens.

Xenophon and Plato—Selections from, in Wilkins' "*Scriptores Attici*" (Longmans & Co.).

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.

Oliphant—The Old and Middle English, pages 1 to 204 (Macmillan).

Hales—Longer English Poems. Selections from Dryden, Pope, Cowper, Keats, and Shelley (Macmillan).

Typical Selections from English Authors, vol. 1 only. (Clarendon Press).

Composition.

FRENCH.

Brachet—The Public School Elementary French Grammar (Hachette & Co.)

Victor Hugo—Hernani.

Maistre, Xavier de—Voyage autour de ma Chambre; Ourika, by *Madame de Duras*; La Dot de Suzette, by *Fievée*; Les

Jumeaux de l'Hotel Corneille, by *Edmond About*; Mésaventures d'un Ecolier, by *Rodolphe Töpffer*. 2nd Edition (Clarendon Press).

Translation from authors not specified.
Composition.

GERMAN.

Whitney's German Grammar (Macmillan)
Goethe—Hermann und Dorothea (Pitt Press).
Lessing—Minna von Barnhelm (Clarendon Press).
Translation from authors not specified.
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, 1889. See pages 88 and 89.

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," Page 67.

An examination for this Scholarship will be held in March, 1889, and should the Scholarship not be awarded, an examination for this Scholarship will, if required, be held in March, 1890.

For form of notice by candidates of intention to compete for the Scholarship. (*Vide* page 71).

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 award has been made of this Scholarship.

1882. Donaldson, George, B.A.

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 69 and 70.

An examination for one Exhibition will be held in March, 1889.

For form of notice by candidate of intention to compete for an Angas Engineering Exhibition. (See page 71.)

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 1889. (*Vide* page 166).

3. SCIENCE.—Chemistry and Physics. As prescribed for the first year's course of the B.Sc. Degree. (*Vide* page 107).

4. PHYSICAL GEOGRAPHY AND GEOLOGY.—As prescribed for the Senior Public Examination for 1889. (*Vide* page 88).

The Hon. J. H. Angas nominated

Clinton Coleridge Farr

to be the first Angas Engineering Exhibitioner—and the nomination was confirmed by the Council.

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 74.

The following award has been made of this Scholarship :

1884. Bertram, Robert Matthew.

THE JOHN HOWARD CLARK SCHOLARSHIPS.

For the conditions of these Scholarships see Statutes, Chapter XIV.
“Of the John Howard Clark Scholarships,” Pages 72 and 73.

The Council have prescribed the following subjects for the examination for these Scholarships to be held, if required, in April, 1889 :—

De Quincey's Recollections of the Lake School of Poets.

Matthew Arnold—Essays on Criticism—viz., the Preface—On the Functions of Criticism—On the Literary influence of Academies.

Landor, W. S.—Imaginary Conversations (Camelot Classics).

Select Poems—Golden Treasury Series (edited by Matthew Arnold).

Subjects for examination in 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).

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
-

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 third term of 1889, and will commence on the 9th 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)
1885.	{	Jacob, Caroline
		Walker, Jeannie Miller Campbell } Non-graduating Students.
December		Verco, William Alfred (Student in Medicine)
1886.		Bristowe, Edith (Non-graduating Student)
December		Powell, Henry Arthur (Student in Medicine)
1887.	{	Anderson, James
		Gent, Samuel } Non-graduating Students
December		Cavenagh, Wentworth Rowland (Student in Medicine)
1888.	{	Austin, Matilda Beatrice
		Coleman, Frederick } Non-graduating Students

THE STOW PRIZES.

For conditions see Statutes, Chapter XV. "Of the Stow Prizes and Scholar," Page 73.

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		

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MARCH, 1888.

ORDINARY EXAMINATION FOR THE DEGREE
OF LL.B.

FIRST YEAR.

ROMAN LAW.

MR. F. W. PENNEFATHER, LL.M., AND MR. T. HEWITSON, LL.B

Time—Three hours.

(No candidate will be allowed to pass in Roman Law who does not show a competent knowledge of Latin.)

Ordinary Exam.,
LL.B.
First Year.
March, 1888.

- I. What were the principal sources of Roman Law until the publication of the Institutes of Justinian?
- II. Translate and explain fully :—*Minima capitis diminutio est cum et civitas et libertas retinetur, sed status hominis commutatur. Quod accidit in his qui adoptantur, item in his qui coemptionem faciunt, et in his qui mancipio dantur, quique et mancipatione manumittantur; adeo quidem, ut quotiens quisque mancipetur, et remancipetur, totiens capite diminuatur. Nec solum majoribus diminutionibus jus adgnationis corrumpitur, sed etiam minima. Et ideo si ex duobus liberis alterum pater emancipaverit, post obitum ejus neuter alteri adgnationis jure tutor esse poterit.*
- III. Explain the following terms :—*Status, mancipium, castrense peculium, nuncupatio, cretio, exceptio, actio in factum præscriptis verbis, societas vectigalis, necessarius heres.*
- IV. Describe the various forms of Testaments.

Ordinary Exam.,
First Year.
LL.B.
March, 1888.

V. Write explanatory notes on the following passages :—

- (a) *Damni injuriæ actio constituitur per legem Aquiliam.*
- (b) *Sed istæ quidem actiones quarum mentionem habuimus, et si quæ sunt similes, ex legitimis et civilibus causis descendunt. Aliæ autem sunt, quas prætor ex sua jurisdictione habet tam in rem quam in personam.*
- (c) *Fidejussor non tantum ipse obligatur sed etiam heredem obligatum relinquit.*

VI. What were the functions of a *judex* in the time of Justinian

VII. Distinguish the following modes of acquisition of Title :
Accessio. Adjudicatio. Bonorum additio.

VIII. Write explanatory notes on the following passages :—

- (a) *Populi auctoritate adoptamus eos qui sui juris sunt.*
- (b) *Feminae vero nullo modo adoptare possunt.*
- (c) *Eo modo et serviles et liberæ personæ mancipantur.*

IX. A legacy is given to a slave of whom Titius is at the time usufructuary and Caius is the owner. Who is entitled to the legacy? Give your reasons.

X. Gaius writes (Book IV., Section 10).

‘*Quædam præterea sunt actiones quæ ad legis actionem exprimuntur.*’ Explain, giving examples of actions per formulas which illustrate the statement.

XI. Translate, explaining italicised passages :—

Hoc tamen capite non quanti in eo anno, sed quanti in diebus XXX proxumis ea res fuerit, damnatur is qui damnnum dederit; ac ne plurimi quidem verbum adicitur: et ideo quidam diversæ scholæ auctores putaverunt liberum esse jus datum, ut duntaxat de XXX diebus proxumis vel eum Prætor formulæ adiceret quo plurimi res fuit, vel alium quo minoris fuit. Sed Sabino placuit perinde habendum ac si etiam hac parte plurimi verbum adjectum esset: nam legis latorem contentum fuisse, quod prima parte eo verbo usus esset.

XII. Mention the various modes by which an obligatio could be extinguished.

MARCH, 1888.

ORDINARY EXAMINATION FOR THE DEGREE
OF LL.B.

FIRST YEAR.

ROMAN LAW.

MR. F. W. PENNEFATHER, LL.M., AND MR. T. HEWITSON, LL.B

Time—Three hours.

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March, 1888.

- I. What were the principal sources of Roman Law until the publication of the Institutes of Justinian ?
- II. Translate and explain fully :—*Minima capitis diminutio est cum et civitas et libertas retinetur, sed status hominis commutatur. Quod accidit in his qui adoptantur, item in his qui coemptionem faciunt, et in his qui mancipio dantur, quique et mancipatione manumittantur; adeo quidem, ut quotiens quisque mancipetur, et remancipetur, totiens capite diminuatur. Nec solum majoribus diminutionibus jus adgnationis corrumpitur, sed etiam minima. Et ideo si ex duobus liberis alterum pater emancipaverit, post obitum ejus neuter alteri adgnationis jure tutor esse poterit.*
- III. Explain the following terms :—*Status, mancipium, castrense peculium, nuncupatio, cretio, exceptio, actio in factum præscriptis verbis, societas vectigalis, necessarius heres.*
- IV. Describe the various forms of Testaments.

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V. Write explanatory notes on the following passages :—

- (a) Damni injuriæ actio constituitur per legem Aquiliam.
- (b) Sed istæ quidem actiones quarum mentionem habuimus, et si quæ sunt similes, ex legitimis et civilibus causis descendunt. Aliæ autem sunt, quas prætor ex sua jurisdictione habet tam in rem quam in personam.
- (c) Fidejussor non tantum ipse obligatur sed etiam heredem obligatum relinquit.

VI. What were the functions of a judex in the time of Justinian

VII. Distinguish the following modes of acquisition of Title :
Accessio. Adjudicatio. Bonorum additio.

VIII. Write explanatory notes on the following passages :—

- (a) Populi auctoritate adoptamus eos qui sui juris sunt.
- (b) Feminae vero nullo modo adoptare possunt.
- (c) Eo modo et serviles et liberæ personæ mancipantur.

IX. A legacy is given to a slave of whom Titius is at the time usufructuary and Caius is the owner. Who is entitled to the legacy? Give your reasons.

X. Gaius writes (Book IV., Section 10).

‘Quædam præterea sunt actiones quæ ad legis actionem exprimuntur.’ Explain, giving examples of actions per formulas which illustrate the statement.

XI. Translate, explaining italicised passages. :—

Hoc tamen capite non quanti in eo anno, sed quanti in diebus XXX proximis ea res fuerit, damnatur is qui damnatum dederit; ac ne plurimi quidem verbum adicitur : et ideo quidam *diversæ scholæ auctores* putaverunt liberum esse jus datum, ut duntaxat de XXX diebus proximis vel eum Prætor formulæ adiceret quo plurimi res fuit, vel alium quo minoris fuit. Sed Sabino placuit perinde habendum ac si etiam hac parte plurimi verbum adjectum esset : nam legis latorem contentum fuisse, quod prima parte eo verbo usus esset.

XII. Mention the various modes by which an obligatio could be extinguished.

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 matter of opinion*]

Ordinary Exam.,
LL.B.,
First Year,
March, 1888.

- I. State the principal qualifications to absolute indefeasability of title of a registered proprietor of land under the Real Property Act, 1886.
- II. What covenants are implied in a conveyance of land in South Australia not under the Real Property Act? Give the reference to the Statute (if any).
- III. Describe a tenancy from year to year, and state how same may be created and determined.
- IV. Explain the remedy known as "distress for rent," and state when, how, and by whom same may be enforced, and whether it exists at common law or is created by Statute.
- V. *A* mortgages his section of land to *B* and then sells it to *C* subject to the mortgage. *C* pays interest on the mortgage for some time, then makes default, whereupon, the principal being overdue, *B* sues *C* for principal and interest under the mortgage. Is *B* entitled to succeed in the action?—
 - (*a*) Assuming the land to be under the old system.
 - (*b*) Assuming the land to be under the Real Property Act.
- VI. *A* dies in the year 1863 intestate, possessed of a section of land, £500 in a Bank, and some farming-stock and furniture, leaving a wife, two sons, and a daughter surviving. The children are all infants. In 1865 the wife marries again, and her husband takes possession of the property and uses it as his own. The eldest son comes of age in 1879. What are his rights? How can he enforce them, and what are the rights of the other children?
- VII. Explain what is meant by the wife's "equity for a settlement."
- VIII. Define "bailment," and give three different examples.

Ordinary Exam.,
LL. B.
First Year.
March, 1888.

- IX. What is the difference between an interest in a partnership and a share in an incorporated Company under the Companies Act, 1864, and what are the liabilities attaching to each?
- X. *A* borrows £100 from *B* and gives him as security a bill of sale over his stock and furniture, including stock which might be acquired after the execution of the bill of sale. The bill of sale is duly registered. Within three months *A* is adjudicated insolvent, and the assignees take possession of the stock and furniture comprised in the bill of sale, including the after-acquired property. *B* claims same under his bill of sale. What are the rights of the assignees and *B* respectively?

THE LAW OF PROPERTY.

MR. F. W. PENNEFATHER, LL.M., AND MR. T. B. GALL.

Time—Three hours.

(You are required to give reasons when your answers involve matters of opinion.)

- I. Trace the various modes of conveyance of Real Property from the earliest times to the present day in England. What additional mode exists in South Australia?
- II. Explain fully the following terms :—
The Rule in Shelly's case, merger, tenant by the curtesy, chattels real, tenant in tail after possibility of issue extinct, the Thellusson Act, foreclosure.
- III. How is a Mortgage regarded (*a*) at Law (*b*) in Equity; and (*c*) under the Real Property Act?
- IV. Enumerate the principal alterations introduced by the Wills Act (1 Vic : c. 26).
- V. *A*, possessed of both real and personal property, dies leaving a will which says "I give £100 to each of my children." He leaves a widow, a legitimate son and daughter, and an illegitimate child. How is his property to be divided?
- VI. What covenants are implied in Transfers of Land (whether incumbered or unincumbered), leases and mortgages, under the Real Property Act?

VII. What are the chief provisions of the Married Women's Property Act ?

Ordinary Exam
L.L.B.
First Year.
March, 1888

VIII. In what ways may a Will be proved ?

IX. What was the result of Taltarum's case ? In what way may the same result now be effected ? Mention the English and South Australian statutes.

X. In what cases is a man liable for the debts of (*a*) his wife and (*b*) his children ?

SECOND YEAR LL.B.

JURISPRUDENCE.

MR. F. W. PENNEFATHER, LL.M.

Time—Three hours.

Ordinary Exam.,
LL.B.
Second Year.
March, 1888.

- I. Define the words *law* (in its most comprehensive literal sense) *duty*, *sanction*, *particular command*, *imperfect law*.
 - II. Examine fully the theories that have been suggested as to the index to the unrevealed Divine Laws.
 - III. To what objects is the term "law" applied? Classify and explain them and the sanctions annexed to them respectively.
 - IV. What are the distinguishing marks of a society political and independent? How does Austin classify forms of Government?
 - V. Blackstone argues that a master cannot have a right to the labours of his slave. Is his argument correct?
 - VI. Lord Mansfield ruled that moral obligation was a sufficient consideration to make a promise legally binding. What objections have been made to this ruling?
 - VII. Explain fully the means by which, according to Maine, Law is brought into harmony with society. Give illustrations from Roman and English Law.
 - VIII. Mention some of the nations amongst whom an organization in the nature of *patria potestas* can be found.
 - IX. Trace the origin and rise of territorial sovereignty in Western Europe.
 - X. How does Maine define the movement of progressive societies?
-

CONSTITUTIONAL LAW.

MR. F. W. PENNEFATHER, LL.M., AND MR. T. HEWITSON, LL.B.

Time—Three hours.

- I. "Nullus liber homo capiatur vel imprisonetur,.....aut utlagetur, aut exuletur, aut aliquo modo destruat, nec

super eum ibimus, nec super eum mitemus, nisi per legale iudicium parium suorum, vel per legem terræ.”

Ordinary Exam.,
LL.B.
Second Year.
March, 1888.

Whence are these words taken? Translate and explain them fully.

- II. What is the origin of the writ of Habeas Corpus? Explain the principal statutes which refer to it. Can the Chief Justice of England issue such a writ into South Australia?
- III. Trace briefly the history of the judicial system of England from the time of Henry II. to the present day.
- IV. If gold is found in land in South Australia the Crown grant of which contains no reservation as to minerals, to whom does the gold belong? Give reasons for your answer.
- V. What was the Constitution of the Upper House of South Australia by the Constitution Act? How and when has this since been altered?
- VI. Describe the constitution and procedure of the Court of trial of disputed returns of Members to either House of the South Australian Parliament.
- VII. What local statutory provisions exist for dealing with obstructive legislation in the Legislative Council of South Australia.
- VIII. Instance some of the privileges, immunities, and powers held and enjoyed by the Legislative Council and House of Assembly and the members thereof respectively. Are they enjoyed by custom or statute?
- IX. Disqualification to sit and vote as a Member of the Parliament of South Australia may exist before or arise after election. State the principal grounds of disqualification in each case.
- X. Give a short summary of the provisions of The Writs or election Act, No. 15, of 1872.

(N.B.—Authorities must be cited, Acts being referred to by the *No. and year.*)

THE LAW OF CONTRACTS.

MR. F. W. PENNEFATHER, LL.M., AND MR. E. PARISS NESBIT.

Time—Three hours.

[*You are required to give reasons where your answers involve matters of opinion.*]

Ordinary Exam.,
LL.B.
Second Year.
March, 1888.

- I. Define *contract, agreement, consideration.*
 - II. Explain the equitable doctrine of undue influence, referring to the principal cases on the subject.
 - III. How are the capacities of Corporations limited?
 - IV. *A*, in Brazil, contracts with *B* to purchase from him a slave. *B* does not fulfil his part of the contract. Can *A* sue *B* in South Australia?
 - V. *A* engages *B* to perform some work for him. Before its completion *A* informs *B* that he will not pay him. What are *B*'s rights?
 - VI. How did Holt, C.J., classify bailments in *Coggs v. Bernard*?
 - VII. Define "warranty" in its narrower sense. Distinguish a warranty from a condition. Under what circumstances can a condition become a warranty in the narrower sense?
 - VIII. Discuss the law as to penalties and liquidated damages respectively, when provided in a contract as recoverable on its breach.
 - IX. Under what circumstances is an infant liable on his contract?
 - X. State the law as to assignments of choses in action.
 - XI. Under what circumstances can a contract be set aside on the ground of fraud.
 - XII. When does a mistake as to the identity of the subject matter of a contract render a contract void?
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THIRD YEAR LL.B.

INTERNATIONAL LAW.

MR. F. W. PENNEFATHER, LL.M.

Time—Three hours.

- I. Give a definition of Public International Law, stating the principal evidences of it, and distinguishing between it and the *jus gentium* of the Romans.
- II. What is meant by "Interference"? On what grounds was the course taken by England and France in Belgium in 1832 justified?
- III. On what grounds was Mr. Canning's formal recognition of the South American Republics justified? Give other instances to which the same tests may be applied.
- IV. If two countries are at war, is it a violation of the laws of neutrality for a ship of war belonging to one country to take its prize into a neutral port and sell it there? What are the rights of the neutral state in such circumstances? Give instances.
- V. What is the principal restriction imposed on neutrals? Explain this fully, with special reference to (a) coal and (b) despatches.
- VI. Explain the expressions *lex situs*, *lex domicilii*, *lex loci actus*, *lex fori*.
- VII. What course will an English Court adopt with reference to appointing a guardian to a foreign infant?
- VIII. A man and woman domiciled in Ireland go to France and there are married according to a form which is valid by the law of France but not valid by the law of Ireland. They then become domiciled in Spain (in which country there is no law of divorce). Subsequently the man goes to reside (but does not acquire a domicile) in England, and the woman commits adultery in Spain.
What are the position and rights of the man according to English Law?
- IX. A Russian, domiciled at Paris, dies at Berlin possessed of freehold land in England, a rent-charge arising out of English land, and money in the English funds.

Ordinary Exam.
LL.B.
Third Year.
March, 1888.

Ordinary Exam.,
LL.B.
Third Year.
March, 1888.

What steps should be taken and by whom? To what laws will the property be subject?

- X. Can a child of parents domiciled in France, who has been legitimated by their subsequent marriage, inherit real estate in England? Give reasons for your answer.

THE LAW OF WRONGS.

MR. F. W. PENNEFATHER, LL.M., AND MR. R. G. MOORE.

Time—Three hours.

(You are required to give reasons where your answers involve matters of opinion).

- I. Define and explain *treason, felony, manslaughter, damnum, privileged communications, contributory negligence, act of God.*
- II. Explain the law as to the liability of a master for an injury caused by one of his servants to another.
- III. In what cases is slander an actionable wrong? State any difference between the law of England and that of South Australia in this respect.
- IV. What was decided in the case of *Fletcher v. Rylands*? Is there any exception to the rule there laid down?
- V. *A, B, and C* agree to rob *F*. *A* makes the necessary arrangements. *B* and *C* go together to accomplish the object. *F* resists, whereupon *B* kills him. *B* then takes refuge at the house of *D*, and *C* at the house of *E*, his own wife.
- What are the liabilities of *A, B, C, D* and *E* respectively?
- VI. What classes of things are capable of being stolen—
(a) At Common Law;
(b) By Statute?
- VII. What evidence is necessary to sustain a conviction for perjury and why?
- VIII. What must be proved to establish a plea of *autrefois acquit*?

- IX. *A* has been in the habit for many years of carrying on a Soap-boiling industry, no houses being in the vicinity. *B* purchases some land immediately adjoining *A*'s factory and complains of the smells arising from it. The smells are intensely disagreeable but not necessarily injurious to health. What remedy has *B*, if any?
- X. What was decided in the case of *Armory v. Delamirie*?
- XI. What is meant by the doctrine of identification in cases of contributory negligence?
- XII. An infant over 14 years of age fraudulently converts to his own use goods which had been delivered to him by the owner under an agreement for the hire of the same. Is he guilty of any, and what offence?

THE LAW OF EVIDENCE AND PROCEDURE.

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 *presumption, secondary evidence, estoppel, mandamus certiorari.*
- II. What evidence is rejected on grounds of public policy Explain and classify.
- III. Trace the history of the Law as to the incompetency of Witnesses. What is the Law in South Australia as to the testimony of Aborigines?
- IV. What is the law as to the admissibility in evidence of documents which require a stamp?
- V. What are the rules as to the joinder of causes of action?
- VI. How might questions of Law have been raised formerly How may they be now?
- VII. State the cases in which an Appeal from a Local Court lies to the Supreme Court, and give the practice.

Ordinary Exam.,
LL. B.
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A sues *B*, the executor of his father's Will, for a legacy of £400. Has a Local Court jurisdiction? and if so would that jurisdiction be effected if the validity of the bequest were called in question?

- VIII. What Classes of onerous property can a trustee in Insolvency disclaim? and has the person injured by the operation of the disclaimer any right of proof on the Estate of the Insolvent? and (if so) to what extent?

An Insolvent at the time of his Insolvency was under contract to build a house for *B*. After the Insolvency *B* gave the trustee notice requiring him to decide whether he would disclaim the contract or not, but the trustee ignored the notice and did not disclaim the contract until after the expiration of two months. What are *B*'s rights (if any) against the trustee?

- IX. Enumerate the modes of enforcing a judgment in the Supreme Court for (1) the payment of a sum of money (2) the payment of money into Court (3) the recovery or delivery of the possession of land and (4) the recovery of any property other than land or money.

- X. In what cases is general evidence of character admissible for the purpose of increasing or diminishing the amount of damages?

In an action for a libel charging the plaintiff generally with dishonesty and misconduct while in service, the plaintiff called a former master to prove his antecedent good conduct. Was the evidence admissible? and (if so) why?

- XI. Under what circumstances are entries made by a dead man in his books receivable in evidence? and by what means can the value of such evidence (if admissible at all) be destroyed?

In the books of a deceased person and in his own handwriting appeared the following entry "*J. W.*, paid me three months' interest"—followed by several other entries of a similar nature. Are these entries admissible in evidence in an action to establish a loan by the deceased to *J. W.*?

- XII. When a contract has been reduced to the form of a document no evidence may be given of the terms of such contract except the document itself nor may the contents of any

such document be contradicted, altered, added to, or varied by oral evidence.

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Enumerate the matters which notwithstanding the foregoing Rules may be proved by oral evidence.

A sells *B* a horse and verbally warrants him quiet in harness. *A* also gives *B* a paper in these words "Bought of *A* a horse for £7 2s. 6d." May *B* prove the verbal warranty?

MARCH, 1888.

SUPPLEMENTARY ORDINARY EXAMINATION,
B.A.

THIRD YEAR.

LATIN (Pass Paper).

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

Nil admirari prope res est una, Numici,
Solaque, quae possit facere et servare beatum.
Hunc solem et stellas et decedentia certis
Tempora momentis sunt qui formidine nulla
Imbuti spectent : quid censes munera terrae,
Quid maris extremos Arabas ditantis et Indos,
Ludicra quid, plausus et amici dona Quiritis,
Quo spectanda modo, quo sensu credis et ore ?
Qui timet his adversa, fere miratur eodem,
Quo cupiens, pacto : pavor est utrobique molestus,
Improvisa simul species exterret utrumque.
Gaudeat an doleat, cupiat metuatne, quid ad rem,
Si, quidquid vidit melius peiusve sua spe,
Defixis oculis animoque et corpore torpet ?

II. Translate—

Viribus uteris per clivos, flumina, lamas ;
Victor propositi simul ac perveneris illuc,
Sic positum servabis onus, ne forte sub ala
Fasciculum portes librorum, ut rusticus agnum,
Ut vinosa glomus furtivae Pyrrhia lanae,
Ut cum pileolo soleas conviva tribulis.

Ne volgo narres te sudavisse ferendo
 Carmina, quae possint oculos auresque morari
 Caesaris ; oratus multa prece, nitere porro.
 Vade, vale, cave ne titubes mandataque frangas.

Supplementary
 Ordinary Exam.,
 B. A.
 Third Year.
 March, 1888.

III. Translate—

Vir bonus et sapiens audebit dicere : Pentheu,
 Rector Thebarum, quid me perferre patique
 Indignum coges ? Adimam bona. Nempe pecus, rem
 Lectos, argentum : tollas licet. In manicis et
 Compedibus saevo te sub custode tenebo.
 Ipse deus, simul atque volam, me solvet. Opinor,
 Hoc sentit : Moriar ; mors ultima linea rerum est.

IV. Translate—

Me quoties reficit gelidus Digentia rivus,
 Quem Mandela hibit, rugosus frigore pagus,
 Quid sentire putas ? quid credis, amice, precari ?
 Sit mihi, quod nunc est, etiam minus ; et mihi vivam
 Quod superest aevi, si quid superesse volunt di ;
 Sit bona librorum et provisae frugis in annum
 Copia, neu fluitem dubiae spe pendulus horae.
 Sed satis est orare Iovem quae donat et aufert :
 Det vitam, det opes, aequum mi animum ipse parabo.

V. Translate—

Ut primum positis nugari Graecia bellis
 Coepit et in vitium fortuna labier aequa,
 Nunc athletarum studiis, nunc arsit equorum,
 Marmoris aut eboris fabros aut aeris amavit,
 Suspendit picta voltum mentemque tabella,
 Nunc tibicinibus, nunc est gavisa tragoedis ;
 Sub nutrice puella velut si luderet infans,
 Quod cupide petiit, mature plena reliquit.

VI. Translate the following sentences, adding notes where you deem them necessary :—

- (a.) Dum ficus prima calorque
 Designatorem decorat lictoribus atris.
- (b.) Frontis ad urbanae descendi praemia.
- (c.) Imperat aut servit collecta pecunia cuique,
 Tortum digna sequi potius quam ducere funem.
- (d.) Liber * * * Sosiorum pumice mundus.
- (e.) Cautos nominibus rectis expendere nummos.

Supplementary
Ordinary Exam.
B.A.
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March, 1888.

- VII. Explain the meaning of the following terms as used by Horace?—
Mediastinus, periscelis, trutina, Quinquatria, scrinia.
- IX. Mark the quantity of the penultimate syllable in the following words:—
Pudicus, decorat, decorus, fodicet, urtica.
- X. Enumerate the various countries under the Roman dominion in the time of Horace, and state briefly the circumstances connected with their annexation.

LATIN (Honour Paper).

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

Parcus Deorum cultor et infrequens
Insanientis dum sapientiæ
 Consultus erro, nunc retrorsum
 Vela dare atque iterare cursus

Cogor relictos : namque Diespiter,
Igri corusco nubila dividens
 Plerumque, per purum tonantes
 Egit equos volumcremque currum.

Quo bruta tellus et vaga flumina,
Quo Styx et inuisi horrida Tænari
 Sedes Atlanteusque finis
 Concutitur. Valet ima summis

Mutare et insignem attenuat Deus
Obscura promens ; hinc apicem rapax
 Fortuna cum stridore acuto
 Sustulit, hic posuisse gaudet.

Scan the first stanza in the above poem.

To what school of philosophy does Horace refer in the expression *insanientis sapientiæ*? Write a philological note on the form *Diespiter*. Describe the position of *Tænarum*, and give its modern name. Why does Horace characterise it as *invisum*?

To what historical event of his own time does Horace allude in the last stanza?

Supplementary
Ordinary Exam.
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II. Translate—

Ille terrarum mihi præter omnes
Angulus ridet, ubi non Hymetto
Mella decedunt viridique certat
Bacca Venafro.

Ver ubi longum tepidasque præbet
Jupiter brumas, et Amicus Aulon
Fertili Baccho minimum Falernis
Invidet uvis.

Ille te mecum locus et beatæ
Postulant arces ; ibi tu calentem
Debita sparges lacrima favillam
Vatis amici.

Scan the first stanza of the above, and point out a metrical licence in the second line. *Viridique certat bacca Venafro.* Give the prose equivalent for this poetic construction. What is the derivation of the word *bruma*? Give some account of the place for which Horace in these lines expresses his preference.

III. Translate—

Me fabulosæ Vulture in Apulo
Altricis extra limen Apuliæ
Ludo fatigatumque somno
Fronde nova puerum palumbes

Texere, mirum quod foret omnibus,
Quicumque celsæ nidum Acherontię
Saltusque Bantinos et arvum
Pingue tenent humilis Forenti,

Ut tuto ab atris corpore viperis
Dormirem et ursis, ut premerer sacra
Lauroque collataque myrto,
Non sine Dis animosus infans.

Orelli, commenting on the first two lines of the above, observes :—“*Duae res permiræ hic nobis accidunt.*” What are the *duae res permiræ*?

IV. Translate—

Qualem ministrum fulminis alitem,
Cui rex Deorum regnum in aves vagas
Permisit expertus fidelem
Juppiter in Ganymede flavo,

Supplementary
Ordinary Exam.,
B.A.
Third Year,
March, 1888.

Olim juvenas et patrius vigor
Nido laborum propulit insecum,
Vernique jam nimbis remotis
Insolitos docuere nisus
Venti paventem, mox in ovilia
Demisit hostem vividus impetus,
Nunc in reluctantes dracones
Egit amor dapis atque pugnæ
Qualemve lætis caprea pascuis
Intenta fulvæ matris ab ubere
Jam lacte depulsum leonem
Dente novo peritura vidit,
Videre Rhætis bella sub Alpibus
Drusum gerentem Vindelici; quibus
Mos unde deductus per omne
Tempus Amazonia securi
Dextras obarmet, quærere distuli;
Nec scire fas est omnia; sed diu
Lateque victrices catervæ
Consiliis juvenis revictæ
Sensere, quid mens rite, quid indoles
Nutrita faustis sub penetralibus
Posset, quid Augusti paternus
In pueros animus Neronis.

What special circumstances account for the bombast, bathos, clumsiness of construction, and infidelity to nature which mark parts of this ode.

V. Discuss briefly Horace's strength and weakness as a lyric poet.

VI. Translate—

Descriptas servare vices operumque colores
Cur ego si nequeo ignoroque poeta salutor?
Cur nescire pudens prave quam discere malo?
Versibus exponi tragicis res comica non vult;
Indignatur item privatis ac prope socco
Dignis carminibus narrari cœna Thyestæ.
Singula quæque locum teneant sortita decenter.
Interdum tamen et vocem comœdia tollit,
Iratusque Chremes tumido delitigat ore;
Et tragicus plerumque dolet sermone pedestri
Telephus et Peleus, quum pauper et exsul uterque

Projicit ampullas et sesquipedalia verba.
 Si curat cor spectantis tetigisse querela,
 Non satis est pulchra esse poemata ; dulcia sunt
 Et quocunq;e volent animum auditoris agunto.

Supplementary
 Ordinary Exam.,
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- VII. Although the *Ars Poetica* is not a systematic piece of literary criticism, it may nevertheless be divided into three main sections. What are they ?

GREEK—"ŒDIPUS TYRANNUS."

(Pass Paper.)

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

- OI. ἀλλ' ἐξ ὑπαρχῆς αἰθις αὐτ' ἐγὼ φανῶ¹.
 • ἐπαξίως γὰρ Φοῖβος, ἀξίως δὲ σὺ
 πρὸ τοῦ θανόντος² τήνδ' ἔθεσθ' ἐπιστροφῆν.
 ὥστ' ἐνδίκως ὄψεσθε³ καμὲ σύμμαχον
 γῆ τῆδε τιμωροῦντα τῷ θεῷ θ' ἅμα.
 ὑπὲρ γὰρ οὐχὶ τῶν ἀπωτέρω φίλων,
 ἀλλ' αὐτὸς αὐτοῦ, τοῦτ' ἀποσκεδῶ⁴ μύθος.
 ὅστις γὰρ ἦν ἐκείνον ὁ κτανὼν τάχ' ἂν
 κάμ' ἂν τοιαύτη χειρὶ τιμωρεῖν θέλοι.
 κείνῳ προσαρκῶν σὺν ἑμαντὸν ὠφελῶ.
 ἀλλ' ὡς τάχιστα, παῖδες, ὑμεῖς μὲν βάρων
 ἴστασθε⁵, τοῦσδ' ἄραντες ἐκτῆρας κλάδους,
 ἄλλος δὲ Κάδμου λαὸν ὠδ' ἀθροίζετω,
 ὡς πᾶν ἐμοῦ δράσοντος. ἢ γὰρ εὐτυχεῖς
 σὺν τῷ θεῷ φανοῦμεθ', ἢ πεπτωκότες.
 IE. ὦ παῖδες, ἰστώμεσθα· τῶνδε γὰρ χάριν
 καὶ δεῦρ' ἔβημεν ὧν ὄδ' ἐξαγγέλλεται.
 Φοῖβος δ' ὁ πέμψας τάσδε μαντείας ἅμα
 σωτήρ θ' ἵκοιτο καὶ νόσου παυστήριος.

Parse the words marked respectively 1, 2, 3, 4, and 5 in the above passage.

II. Translate—

- OI. πόσον τιν' ἤδη δῆθ' ὁ Λάϊος χρόνον—
 KP. δέδρακε ποῖον ἔργον ; οὐ γὰρ ἔννοῶ.

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- ΟΙ. ἄφαντος ἔρρει θανασίμῳ χειρώματι ;
 ΚΡ. μακροὶ παλαιοὶ τ' ἂν μετρηθῆεν χρόνοι.
 ΟΙ. τότε οὖν ὁ μάντις οὗτος ἦν ἐν τῇ τέχνῃ ;
 ΚΡ. σοφὸς γ' ὁμοίως κάξ ἴσου τιμώμενος.
 ΟΙ. ἐμνήσατ' οὖν ἐμοῦ τι τῷ τότε ἐν χρόνῳ ;
 ΚΡ. οὐκ οὖν ἐμοῦ γ' ἐστῶτος οὐδαμοῦ πέλας.
 ΟΙ. ἀλλ' οὐκ ἔρευναι τοῦ θανόντος ἔσχετε ;
 ΚΡ. παρέσχομεν, πῶς δ' οὐχί ; κοῦκ ἠκούσαμεν.
 ΟΙ. πῶς οὖν τόθ' οὗτος ὁ σοφὸς οὐκ ἦν δα τάδε ;
 ΚΡ. οὐκ οἶδ'. ἐφ' οἷς γὰρ μὴ φρονῶ σιγᾶν φιλῶ.
 ΟΙ. τοσόνδε γ' οἶσθα καὶ λέγοις ἂν εἰ φρονῶν.
 ΚΡ. ποῖον τόδ' ; εἰ γὰρ οἶδά γ', οὐκ ἀρνήσομαι.

ἐφ' οἷς γὰρ μὴ φρονῶ σιγᾶν φιλῶ. Explain the construction of οἷς.

III. Translate—

τοιάνδ' ἐγὼ κηλῖδα μηνύσας ἐμῆν
 ὀρθοῖς ἐμελλον ὄμμασιν τοῦτους ὄρᾶν ;
 ἦκιστά γ'· ἀλλ' εἰ τῆς ἀκουούσης ἔτ' ἦν
 πηγῆς δι' ὧτων φραγμὸς, οὐκ ἂν ἐσχόμην
 τὸ μὴ ἀποκλῆσαι τοῦμὸν ἄθλιον δέμας,
 ἔν' ἢ τυφλὸς τε καὶ κλύων μηδέν· τὸ γὰρ
 τὴν φροντίδ' ἔξω τῶν κακῶν οἰκείν γλυκύν.
 ἰὼ Κιθαιρῶν, τί μ' ἐδέχου ; τί μ' οὐ λαβῶν
 ἔκτεινας εὐθύς, ὡς ἔδειξα μήποτε
 ἑμαυτὸν ἀνθρώποισιν ἐνθεν ἢ γεγώς ;
 ὦ Πόλυβε καὶ Κόρινθε καὶ τὰ πάτρια
 λόγῳ παλαιὰ δώμαθ', οἶον ἄρά με
 κάλλος κακῶν ὑπουλον ἐξεθρέψατε.

οὐκ ἂν ἐσχόμην. What is the special force of ἂν when used with the indicative ?

Scan the fifth line in the above passage.

IV. Translate, adding notes where you deem them needful, the following sentences, and fill up the ellipsis in (b)—

- (a) ὠναξ Ἄπολλον, εἰ γὰρ ἐν τύχῃ γε τῷ
 σωτήρι βαίῃ λαμπρὸς ὡσπερ ὄμματι.
 (b) τοῦτον κελεύω πάντα σημαίνειν ἐμοί·
 κεί μὲν φοβεῖται, τοῦπίκλημ' ὑπεξελλὼν
 αὐτὸς καθ' αὐτοῦ· πείσεται γὰρ ἄλλο μὲν
 ἀστεργές οὐδέν, γῆς δ' ἄπεισιν ἀσφα λῆς.
 (c) οἶσθ' ὡς ποίησον ; ἀντὶ τῶν εἰρημένων
 ἴσ' ἀντάκουσον, κῆτα κρίν' αὐτὸς μαθῶν.

- (d) ὄλοις' ὅστις ἦν ὃς ἀγρίας πέδας νόμαδος ἐπιποδίας ἔλαβέ μ' ἀπό τε φόνου ἔρυτο κἀνέσωσεν.

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HISTORY.

1. Examine the influence of the physical geography of Greece upon the political and intellectual character of its inhabitants.
2. State briefly what you know of Lykurgus, Themistokles, Perikles, Epaminondas, and Phokion.
3. Write a short account of—
 - (a) The Ionic Revolt ;
or,
 - (b) The Athenian Expedition to Sicily, B.C. 415 ;
or,
 - (c) The Achaean League.

GREEK (Honour Paper).

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

Ἐν δὲ Αἰγύπτιοι μιὰρὸν ἤγηται θηρίον εἶναι· καὶ τοῦτο μὲν, ἦν τις ψαύσῃ αὐτῶν παριῶν ὑδς, αὐτοῖσι ἱματίοισι ἀπ' ὧν ἔβαψε ἑωυτὸν βὰς ἐπὶ τὸν ποταμὸν, τοῦτο δὲ οἱ συβῶται ἔοντες Αἰγύπτιοι ἐγγενέες ἐς ἱρὸν οὐδὲν τῶν ἐν Αἰγυπτῷ ἐσέρχονται μόνου πάντων, οὐδὲ σφι ἐκδίδοσθαι θυγατέρα οὐδεὶς ἐθέλει οὐδ' ἄγεσθαι ἐξ αὐτῶν, ἀλλ' ἐκδίδονται τε οἱ συβῶται καὶ ἄγονται ἐξ ἀλλήλων. τοῖσι μὲν νυν ἄλλοισι θεοῖσι θύειν ὕς οὐ δικαιοῦσι Αἰγύπτιοι, Σελήνῃ δὲ καὶ Διονύσῳ μόνουσι τοῦ αὐτοῦ χρόνου, τῇ αὐτῇ πανσελήνῳ, τοὺς ὕς θύσαντες πατέονται τῶν κρεῶν. διότι δὲ τοὺς ὕς ἐν μὲν τῇσι ἄλλῃσι ὀρθῇσι ἀπεστυγήκασι, ἐν δὲ ταύτῃ θύουσι, ἔστι μὲν λόγος περὶ αὐτοῦ ὑπ' Αἰγυπτίων λεγόμενος, ἐμοὶ μὲντοι ἐπισταμένῳ οὐκ εὐπρεπέστερός ἐστι λέγεσθαι. θυσίῃ δὲ ἤδε τῶν ὕων τῇ Σελήνῃ ποιέεται· ἐπεὰν θύσῃ, τὴν οὐρὴν ἄκρην

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καὶ τὸν σπλῆνα καὶ τὸν ἐπίπλοον συνθεῖς ὁμοῦ κατ' ὦν ἐκάλυψε πάσῃ τοῦ κτήνεος τῇ πιμελῇ τῇ περὶ τὴν νηδὸν γινομένην, καὶ ἔπειτεν καταγίξει πυρὶ· τὰ δὲ ἄλλα κρέα σιτέονται ἐν τῇ πανσελήνῳ, ἐν τῇ ἂν τὰ ἰρὰ θύσῳσι, ἐν ἄλλῃ δὲ ἡμέρῃ οὐκ ἂν ἔτι γευσαίαιτο. οἱ δὲ πένητες αὐτῶν ὑπ' ἀσθενείης βίου σταιτίνας πλάσαντες ὅς καὶ ὀπτήσαντες ταύτας θύουσι.

—Herodotus, Book ii., Chap. 47

Write down all the Ionic forms in the above passage, and give the Attic equivalents.

II. Translate—

Φιλέει δὲ κως προσημαίνειν, εὐτ' ἂν μέλλῃ μεγάλα κακὰ ἢ πόλι ἢ ἔθνεϊ ἔσεσθαι· καὶ γὰρ Χίοισι πρὸ τούτων σημηῖα μεγάλα ἐγένετο. τοῦτο μὲν σφί πέμψασι ἐς Δελφοὺς χορὸν νειηίων ἑκατὸν δύο μῦνοι τούτων ἀπενόστησαν, τοὺς δὲ ὀκτώ τε καὶ ἐνεθήκοντα αὐτῶν λοιμὸς ὑπολαβὼν ἀπήνεκε, τοῦτο δὲ ἐν τῇ πόλι τὸν αὐτὸν τούτον χρόνον, ὀλίγῳ πρὸ τῆς ναυμαχίης, παισὶ γράμματα διδασχομένοισι ἐπέπεσε ἡ στέγη, ὥστε ἀπ' ἑκατὸν καὶ εἴκοσι παίδων εἰς μόνους ἀπέφυγε. ταῦτα μὲν σφί σημηῖα ὁ θεὸς προέδεξε, μετὰ δὲ ταῦτα ἡ ναυμαχίη ὑπολαβοῦσα ἐς γόνυ τὴν πόλιν ἔβαλε, ἐπὶ δὲ τῇ ναυμαχίῃ ἐπεγένετο Ἴσταιῖος Λεσβίου ἀγων' κεκακωμένων δὲ τῶν Χίων, καταστροφὴν εὐπετέως αὐτῶν ἐποιήσατο.

—Herodotus, Book vi., Chap. 27.

III. Explain the following words and phrases in Herodotus—

καταπειρητηρίην, τὸ σταῖς, τὸ νάκος,

ἐπὶ ξυροῦ γὰρ ἀκμῆς ἔχεται ἡμῖν τὰ πρήγματα,

ἦν γὰρ ἐνδέκατος ψηφιδοφόρος ὁ τῷ κνάμῳ λαχὼν Ἀθηναίων πολεμαρχεῖν.

IV. Translate—

καὶ ὁ πάντες ἐθρύλουν, τοῦτο πέπρακται νυνὶ ὀπωδῆποτε. τί οὖν ὑπόλοιπον, ὦ ἄνδρες Ἀθηναῖοι, πλὴν βοθηεῖν ἐρῶμένως καὶ προθύμως; ἐγὼ μὲν οὐχ ὀρῶ· χωρὶς γὰρ τῆς περιστάσης ἂν ἡμῶς αἰσχύνῃς, εἰ καθυφείμεθά τι τῶν πραγμάτων, οὐδὲ τὸν φόβον, ὦ ἄνδρες Ἀθηναῖοι, μικρὸν ὀρῶ τὸν τῶν μετὰ ταῦτα, ἐχόντων μὲν ὡς ἔχουσι Θηβαίων ἡμῖν, ἀπειρηκότων δὲ χρήμασι Φωκέων· μηδενὸς δ' ἐμποδῶν ὄντος Φιλίππῳ τὰ παρόντα καταστρεψαμένῳ, πρὸς ταῦτα ἐπικλίνει τὰ πράγματα. ἀλλὰ μὴν εἴ τις ὑμῶν εἰς τοῦτο ἀναβάλλεται ποιήσειεν τὰ δέοντα, ἰδεῖν ἐγγύθεν βούλεται τὰ δεινά, ἔξδν ἀκούειν ἄλλοθι γιγνόμενα, καὶ βοθηοὺς ἑαυτῷ ζητεῖν, ἔξδν νῦν ἐτέροις αὐτὸν

βοηθεῖν. ὅτι γὰρ εἰς τοῦτο περιστήσεται τὰ πράγματα, ἂν τὰ παρόντα προύμεθα, σχεδὸν ἴσμεν ἅπαντες δήπου.

—Demosthenes, Third Olynthiac, Sections 30-31.

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V. Translate—

Ἐγὼ μὲν οὖν οὐτ' ἄλλοτε πρόποτε πρὸς χάριν εἰλόμην λέγειν, ὃ τι ἂν μὴ καὶ συνοίσειν ὑμῖν πεπεισμένοι ὦ, νῦν τε, ἃ γινώσκω, πάνθ' ἄπλῶς, οὐδὲν ὑποστειλάμενος, πεπαρρησίασμαι. ἐβουλόμην δ' ἂν, ὥσπερ ὅτι ὑμῖν συμφέρεи τὰ βέλτιστα ἀκούειν οἶδα, οὕτως εἰδέναι συνοίσον καὶ τῷ τὰ βέλτιστα εἰπόντι· πολλῶ γὰρ ἂν ἥδιον εἶπον. νῦν δ' ἐπ' ἀδήλοισ οὔσι τοῖς ἀπὸ τούτων ἐμαντῷ γενησομένοις, ὅμῳς ἐπὶ τῷ συνοίσειν ὑμῖν, ἂν πράξετε, ταῦτα πεπεῖσθαι λέγειν αἰρούμαι. νικῶν δ' ὃ τι πᾶσιν ὑμῖν μέλλει συνοίσειν.

—Demosthenes, First Philippic, final paragraph.

ἐβουλόμην ἂν. Write a note on this use of ἂν with the indicative.

VI Explain the following words and phrases in Demosthenes—

ἐκνευρισμένοι καὶ περιηρημένοι χρήματα,
συγκεκροτημένοι τὰ τοῦ πολέμου,
ὄνειροπολεῖν, ὑποβολιμαῖος, ἀποτυπανίσαι.

GREEK AND LATIN COMPOSITION.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

Translate into Greek Prose :—

The citizens on their part showed themselves stout and loyal subjects ; neither was there so much as any tumult or division amongst them, but all prepared themselves for a valiant defence, and making good the town. For well they saw that the rebels were of no such number or power that they needed to fear them as yet ; and well they hoped that, before their numbers increased, the King's succours would come in. And, howsoever, they thought it the extremest of evils to put themselves at the mercy of those hungry and disorderly people. Wherefore, setting all things in good order within the town, they nevertheless let down with cords, from several

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parts of the wall privily, several messengers, that, if one came to mischance, another might pass on, which should advertise the king of the state of the town, and implore his aid.

Lord Bacon.

Translate into Latin Prose :—

Having thus secured all matters on this side, he directly turned to the other. He was now made pro-consul of Gaul for five years, and afterwards continued for five more. He was furnished with arms, legions, and commanded a warlike province, adjacent to Italy. For he knew that after he had strengthened himself with arms and a military power, neither Crassus nor Pompey could make head against him; the one trusting to his riches, the other to his fame and reputation; the one decaying in age, the other in authority; and neither of them resting upon true and solid foundations. And all this succeeded to his wish; especially as he had bound and obliged all the senators, magistrates, and those who had any power, so firmly to himself by private benefits, that he feared no conspiracy or combination against his designs till he had openly invaded the state. And though this was even his scheme, and at last put in execution, yet he did not unmask; but what by the reasonableness of his demands, his pretences of peace, and moderating his successes, he turned the whole load of envy upon the opposite party, and appeared to take arms of necessity for his own preservation and safety.

Lord Bacon.

MATHEMATICS. I. (Pass Paper.)

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Express the area of a triangle in terms of the co-ordinates of its angular points.

Find the area of the triangle contained by the three straight lines :—

$$x + y = 1, \quad 2x + y = 1, \quad 4y - x = 7$$

- II. Find the length of the perpendicular from the point $x' y'$ on

the straight line $ax + by + c = 0$. How does the sign of the result indicate on which side of the line the point lies?

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Show that the equation $(x - y + 3)(x + y) = 4$ represents a locus which lies entirely within one of the pairs of equal angles formed by the straight lines $x - y + 3 = 0$, $x + y = 0$.

III. Find the locus of the intersection of the diagonals of the quadrilateral formed by the axes and the pairs of lines

$$\frac{x}{a} + \frac{y}{b} = 1, \quad \frac{x}{na} + \frac{y}{nb} = 1, \text{ if } n \text{ be supposed to vary.}$$

IV. If the straight line $y = mx + n$ touches the circle $x^2 + y^2 + 2gx + 2fy + c = 0$, what relation must exist between the constants of the two equations?

Show that the circles

$$x^2 + y^2 = (c + a)^2, \quad (x - a)^2 + y^2 = c^2$$

have but one common tangent, and find its equation.

V. Two circles whose radii are τ and τ' intersect at an angle θ ; find the length of their common chord.

VI. Show that if SY be the perpendicular from the focus S of a parabola upon the tangent at P , then Y lies on the tangent at the vertex.

Find the locus of the centre of the circle circumscribing the triangle SPY .

VII. Show that two tangents can be drawn to a parabola from any point, which will be real, coincident, or imaginary, according as the point is outside, upon, or within the curve.

VIII. If the lengths of two tangents to a parabola at right angles to one another be b , c , the latus rectum of the parabola is

$$\frac{4b^2c^2}{(b^2 + c^2)^{\frac{3}{2}}}$$

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MATHEMATICS II.

ANALYTICAL CONICS. (Pass Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Find the equation of the tangent at the point $x' y'$ to the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$.

Show that if the tangent at a point P of an ellipse meet the major axis in T , PN be the ordinate of the point P , C be the centre of the ellipse, and CA the semi-major axis, then $CT.CN = CA^2$.

- II. Show that the area of the parallelogram which touches an ellipse at the ends of conjugate diameters is constant.

Also show that the acute angle between a pair of equiconjugate diameters is less than the angle between any other pair of conjugate diameters.

- III. Using the polar form of the equation to the hyperbola, the centre being pole, trace the form of the curve.

If two sides of a triangle be given in position, and its perimeter given in magnitude, the locus of the point which divides the base in a given ratio is a hyperbola.

- IV. If from a point K in the transverse axis a perpendicular KL be drawn to an asymptote and a normal KM to the curve : prove that LM is perpendicular to the transverse axis.

- V. Show that in any conic the semi-latus-rectum is a harmonic mean between the segments of any focal chord.

If Q be the point on the auxiliary circle corresponding to P on the ellipse, the locus of the intersection of SP and the line joining Q to the centre is a circle.

- VI. Trace the curves—

(i.) $4x^2 - 6xy + 6y^2 + 10x - 12y + 13 = 0$.

(ii.) $xy + 4ax - 2by = 0$.

MARCH, 1888.

SPECIAL SENIOR PUBLIC EXAMINATION.

DIVISION A. I.

ENGLISH HISTORY AND LITERATURE.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

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- I. When, and under what circumstances, did Prussia become a kingdom?
- II. In 1702 war was proclaimed by England against France and Spain. Why?
- III. A characteristic feature of Queen Ann's reign is the double dealing of the leading men of all parties. Give some instances.
- IV. What important results were secured to the allies by the battle of Turin, A.D. 1706?
- V. In 1711 twelve new peers were created simultaneously. At whose suggestion, and for what purpose, did the Queen take this extraordinary step?
- VI. What was the proportion of paupers to the whole population in Queen Ann's reign, and what was the average cost of a pauper's maintenance? What were the average daily wages of a working man at the same period?
- VII. Write brief memoirs of three eminent literary men in Queen Ann's reign.
- VIII. Reproduce, as far as you can, what Addison states concerning the scope and character of the *Spectator*. What were the price and average circulation of the paper? Point out any peculiarities in its spelling and diction which have impressed you.

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- IX. Addison in the *Spectator* criticises the style of English oratory prevalent in his time. Describe the nature of his criticism.
- X. "The French have refined too much upon Horace's rule." What is the dramatic canon of Horace here alluded to, and what instance is adduced by Addison of French super-refinement in this respect?
- XI. Explain from the context Pope's words:—"Whatever is, is right."
- XII. "Two principles in human nature reign." What, according to Pope, are these principles?
- XIII. Quote, or give the substance of, Pope's comparison of Reason and *Instinct* in Epistle II.
- XIV. Explain the allusions in the following lines:—
 (a) *Shall burning Aetna, if a sage requires,
 Forget to thunder, and recall its fires?*
 (b) *Who made the spider parallels design
 Such as Demoivre, without rule or line?*
 (c) *From Macedonia's madman to the Swede.*

DIVISION A. 2. LATIN.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

Tu ne quaesieris, scire nefas, quem mihi, quem tibi
 Finem di dederint, Leuconoë, nec Babylonios
 Tentaris numeros. Ut melius quidquid erit pati,
 Seu plures hiemes seu tribuit Juppiter ultimam,
 Quae nunc oppositis debilitat pumicibus mare
 Tyrrhenum. Sapias, vina liques, et spatio brevi
 Spem longam reseces. Dum loquimur, fugerit invida
 Aetas: carpe diem quam minimum credula postero.
 Parse—Tentaris, pumicibus, liques.

II. Translate—

Non Dindymene, non adytis quatit
 Mentem sacerdotum incola Pythius,
 Non Liber aequae, non acuta
 Sic geminant Corybantes aera

Tristes ut irae, quas neque Noricus
 Deterret ensis nec mare naufragum
 Nec saevus ignis nec tremendo
 Juppiter ipse ruens tumultu.

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Write notes on the words—Dindymene, Pythius, Cory-
 bantes, Noricus.

III. Translate—

Quodsi Threicio blandius Orpheo
 Auditam moderere arboribus fidem,
 Non vanae redeat sanguis imagini,
 Quam virga semel horrida
 Non lenis precibus fata recludere
 Nigro compulerit Mercurius gregi.
 Durum : sed levius fit patientia
 Quidquid corrigere est nefas.

Scan the first stanza in III.

IV. Translate—

Huc vina et unguenta et nimium breves
 Flores amoenae ferre jube rosae,
 Dum res et aetas et sororum
 Fila trium patiuntur atra.
 Cedas cõemptis saltibus et domo
 Villaque flavus quam Tiberis lavit,
 Cedas et exstructis in altum
 Divitiis potietur heres.
 Divesne prisco natus ab Inacho
 Nil interest an pauper et infima
 De gente sub divo moreris
 Victima nil miserantis Orci.

Parse—Cõemptis, lavit, moreris.

V. Translate—

Utrumque nostrum incredibili modo
 Consentit astrum. Te Jovis impio
 Tutela Saturno refulgens
 Eripuit volucrisque Fati
 Tardavit alas, cum populus frequens
 Laetum theatris ter crepuit sonum :
 Me truncus illapsus cerebro
 Sustulerat, nisi Faunus ictum
 Dextra levasset, Mercurialium
 Custos virorum. Reddere victimas

Aedemque votivam memento :

Nos humilem feriemus agnam.

To whom did Horace address these lines? Comment on the peculiar use of the indicative—*sustulerat*. Explain—*Mercurialium virorum*.

VII. Translate—

Me Colchus et qui dissimulat metum

Marsae cohortis Dacus et ultimi

Noscent Geloni, me peritus

Discet Hiber Rhodanique potor.

Absint inani funere neniae

Luctusque turpes et querimoniae ;

Compesce clamorem ac sepulcri

Mitte supervacuos honores.

VIII. Explain the following words as used by Horace—

Canicula, diota, cantharus, uncus, saga.

IX. Mark the quantity of the penultimate syllable in—

Gaetulus, Rhodanus, exilis, dividens, lorica.

X. Draw up an epitome of the most important events in Roman History during the interval between the birth (B.C. 65) and the death (B.C. 8) of Horace.

DIVISION A. 3. GREEK.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

Καὶ μὴν εἴ τις ὑμῶν ταῦτα μὲν οὕτως ἔχειν ἠγείται, οἶεται δὲ βία καθέξειν αὐτὸν τὰ πράγματα τῶ τὰ χωρία καὶ λιμένας καὶ τὰ τοιαῦτα προειληφέναι, οὐκ ὀρθῶς οἶεται. Ὅταν μὲν γὰρ ὑπ' εὐνοίας τὰ πράγματα συστῆ καὶ πᾶσι ταῦτα συμφέρῃ τοῖς μετέχουσι τοῦ πολέμου, καὶ συμπονεῖν καὶ φέρειν τὰς συμφορὰς καὶ μένειν ἐθέλουσιν οἱ ἄνθρωποι· ὅταν δ' ἐκ πλεονεξίας καὶ πονηρίας τις ὥσπερ οὗτος ἰσχύσῃ, ἢ πρώτη πρόφασις καὶ μικρὸν πταῖσμα ἅπαντα ἀνεχαίτισε καὶ διέλυσε.

Parse the following words in the above passage :—

ταῦτα, ταῦτά, καθέξειν, προειληφέναι, συστῆ.

Write down the Nominative Singular of—*ὑμῶν*, *πράγματα*, *χωρία*, *λιμένας*, *πᾶσι*. Decline *οὗτος* in full.

II. Translate—

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'Αλλ', οἶμαι, καθήμεθα οὐδὲν ποιούντες· οὐκ ἔνι δ' αὐτὸν ἀργούντα οὐδὲ τοῖς φίλοις ἐπιτάττειν ὑπὲρ αὐτοῦ τι ποιεῖν, μὴ τί γε δὴ τοῖς θεοῖς. Οὐ δὴ θαυμαστόν ἐστιν, εἰ στρατευόμενος καὶ ποιῶν ἐκείνος αὐτὸς καὶ παρὼν ἐφ' ἅπασι καὶ μηδένα καιρὸν μῆδ' ὦραν παραλείπων ἡμῶν μελλόντων καὶ ψηφισομένων καὶ πυνθανομένων περιγίγνεται. Οὐδὲ θαυμάζω τοῦτ' ἐγώ· τοῦναντίον γὰρ ἂν ἦν θαυμαστόν, εἰ μηδὲν ποιούντες ἡμεῖς ὦν τοῖς πολεμοῦσι προσήκει τοῦ πάντα ποιούντος περιῆμεν. 'Αλλ' ἐκεῖνο θαυμάζω, εἰ Λακεδαιμονίους μὲν ποτε ὦ ἄνδρες Ἀθηναῖοι ὑπὲρ τῶν Ἑλληνικῶν δικαίων ἀντήρατε, καὶ πολλὰ ἰδίᾳ πλεονεκτῆσαι πολλάκις ὑμῖν ἕξον οὐκ ἠθελήσατε, ἀλλ' ἔν' οἱ ἄλλοι τύχῳσι τῶν δικαίων, τὰ ὑμέτερ' αὐτῶν ἀνηλίσκετε εἰσφέροντες καὶ προεκινδυνεύετε στρατευόμενοι, νυνὶ δ' ὀκνεῖτε ἐξιέναι καὶ μέλλετε εἰσφέρειν ὑπὲρ τῶν ὑμετέρων αὐτῶν κτημάτων, καὶ τοὺς μὲν ἄλλους σεσώκατε πολλάκις πάντας καὶ καθ' ἓνα αὐτῶν ἕκαστον ἓν μέρος, τὰ δ' ὑμέτερ' αὐτῶν ἀπολωλεκότες κάθησθε. Ταῦτα θαυμάζω, καὶ ἔτι πρὸς τούτοις, εἰ μηδὲ εἰς ὑμῶν ὦ ἄνδρες Ἀθηναῖοι δύναται λογισασθαι πόσον πολεμεῖτε χρόνον Φιλίππῳ καὶ τί ποιούντων ὑμῶν ὁ χρόνος διελήλυθεν οὗτος.

Parse—

ἐνι, ἓνα, παρὼν, περιῆμεν, ἀντήρατε, διελήλυθεν.

τοῦναντίον γὰρ ἂν ἦν θαυμαστόν, εἰ μηδὲν ποιούντες ἡμεῖς ὦν τοῖς πολεμοῦσι προσήκει τοῦ πάντα ποιούντος περιῆμεν.

Give the component parts of the contracted form τοῦναντίον. Comment on the use of ἂν with the indicative.

Why is μηδὲν used instead of οὐδὲν in this passage?

What is the subject of the verb προσήκει?

III. Translate—

Ἐπ' οὖν τὸ λυσιτελοῦν αὐτοῖς ἕκαστοι χωροῦσιν. Ὑμεῖς δὲ ὅταν μὲν εἰς τὰ πράγματα ἀποβλέψητε φαύλως ἔχοντα, τοὺς ἐφεστηκότας κρίνετε, ὅταν δὲ δόντες λόγον τὰς ἀνάγκας ἀκούσητε ταύτας, ἀφίετε. Περίεστι τοίνυν ὑμῖν ἀλλήλοις ἐρίζειν καὶ διεστάναι, τοῖς μὲν ταῦτα πεπεισμένοις τοῖς δὲ ταῦτα, τὰ κοινὰ δ' ἔχειν φαύλως. Πρότερον μὲν γὰρ ὦ ἄνδρες Ἀθηναῖοι εἰσεφέρετε κατὰ συμμορίας, νυνὶ δὲ πολιτεύεσθε κατὰ συμμορίας. Ῥήτωρ ἡγεμῶν ἑκατέρων, καὶ στρατηγὸς ὑπὸ τούτῳ, καὶ οἱ βοησόμενοι οἱ τριακόσιοι· οἱ δ' ἄλλοι προσενέμψθησθε οἱ μὲν ὡς τούτους, οἱ δὲ ὡς ἐκείνους.

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Parse—

λυσιτελοῦν, δόντες, διαστάναι, προσενέμῃσθε;

and give the Dative Plural of—

ἄνδρες, ῥήτωρ, ἡγεμόν.

IV. Translate into Greek Prose—

After his repulse from the Chersonesus, Philip marched to the aid of Atheas, King of the Scythians, who had invoked his assistance against the tribes on the banks of the Danube. Before he arrived, however, the danger had ceased, and Atheas dismissed him with an insulting message. Hereupon Philip crossed the Danube, defeated the Scythians, and returned with an immense booty. But as he was passing through the country of the Triballi they demanded a share of the spoil; and upon being refused gave battle to the Macedonians, in which Philip was so severely wounded that he was reported to be dead.

V. Write an epitome of the most remarkable events in the Athenian history from *Solon* to *Demosthenes*.

VI. Describe the position of the following places and their connection with the struggle between Athens and Philip of Macedon:—

Byzantium, Olynthus, Amphipolis, Chaeronea, Euboea.

DIVISION A. 5. GERMAN.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate:—

Sphigene. Du wirft nicht untergehn! O daß ich nur
Ein ruhig Wort von dir vernehmen könnte!
O löse meine Zweifel, laß des Glückes,
Des lang ersehnten, mich auch sicher werden.
Es wälzet sich ein Rad von Freud' und Schmerz
Durch meine Seele. Von dem fremden Manne
Entfernet mich ein Schauer; doch es reißt
Mein Innerstes gewaltig mich zum Bruder.
Dreß. Ist hier Olyns Tempel? und ergreift
Unbändig heil'ge Wuth die Priesterin?
Sphigene. O höre mich! O sieh mich an, wie mir

Nach einer langen Zeit das Herz sich öffnet,
Der Seligkeit, dem Liebsten, was die Welt
Noch für mich tragen kann, das Haupt zu küssen,
Mit meinen Armen, die den leeren Winden
Nur ausgebreitet waren, dich zu fassen!
O laß mich! laß mich! denn es quillet heller
Nicht vom Barnaß die ew'ge Quelle sprudelnd
Von Fels zu Fels in's goldne Thal hinab,
Wie Freude mir vom Herzen wallend fließt,
Und wie ein selig Meer mich rings umfängt.
Drest! Drest! Mein Bruder!

Parse the underlined words in the above passage.

II. Translate :—

Phigeneia (allein). Du hast Wolken, gnädige Retterin,
Einzuhüllen unschuldig Verfolgte,
Und auf Winden dem eh'rnen Geschick sie
Aus den Armen über das Meer,
Ueber der Erde weiteste Strecken,
Und wohin es dir gut dünkt, zu tragen.
Weise bist du und siehest das Künftige;
Nicht vorüber ist dir das Vergangne,
Und dein Blick ruht über den Dainen,
Wie dein Licht, das Leben der Nächte,
Ueber der Erde ruhet und waltet.
O enthalte vom Blut meine Hände!
Nimmer bringt es Segen und Ruhe;
Und die Gestalt des zufällig Ermordeten
Wird auf des traurig-unwilligen Mörders
Böse Stunden lauern und schrecken.
Denn die Unsterblichen lieben der Menschen
Weitverbreitete gute Geschlechter,
Und sie fristen das flüchtige Leben
Gerne dem Sterblichen, wollen ihm gerne
Ihres eigenen, ewigen Himmels
Mitgenießendes frohliches Anschau'n
Eine Weile gönnen und lassen.

III. Translate :—

Mit der Bitternis legte sich auf die Brust des jungen Mannes
auch Reue und Schuldbewußtheit. Und plötzlich rief er laut:
Du bist auch ein Revolutionär, du hast das Gesetz gebeugt und
gebrochen, weil du dich dazu berechtigt glaubtest. Du hast am
Fels der Ordnung gerüttelt, nun rollt er zermalmend auf dich
nieder. Und das wird nun durch die ganze Garnison von Mund
zu Mund gehen, und das Beste, was sie sagen werden, wird
heißen: Schade um Hauerstein, daß er kassiert wird. Er war
ein guter Soldat und hatte alle Unwartschafft, in den General-
stab zu kommen. Aber freilich, er hat es im Innern mit den
Revolutionären gehalten.

Parse the words underlined in the above.

IV. Translate :—

Acht Tage waren nach diesem Gespräch vergangen. Charlotte hatte ihren Plan geändert und sich von ihrer Taate mit nicht großer Mühe überreden lassen, in Weimar zu bleiben. Denn da Franz abgereist war und von seiner Gegenwart für das Haus des Onkels nichts zu befürchten stand, mochte sie gegen einen dauernden Aufenthalt nichts einwenden. Sie hatte nur wenige Zeilen von der Hand ihres Verlobten empfangen, voll von seiner feurigen, unverbrüchlichen Liebe, zugleich aber mit der Nachricht, daß er in Familienangelegenheiten schleunigt abreisen müsse und Verhältnissen entgegengehe, die ihn vielleicht längere Zeit von ihr trennen würden. Damit gab sich Charlotte vorerst zufrieden.

Parse the words underlined in the above.

- V. (a.) Under what circumstances is the dative with von preferred to the genitive.
 (b.) Give instances of the infinitive without zu.
 (c.) Lay down rules for the use of haben and sein respectively as auxiliaries in the active voice.

VI. Translate into German prose :—

When the lady of the house opened the piano, every one wished to hear Charlotte sing, as she had been taught by the best music-master in Weimar. She complied with the request, and sang two of Goethe's songs, set to music by Reichardt, which at that time were very much admired. Frank felt thrilled through and through in his inmost soul by this pure maiden voice. He felt strongly inclined to address the singer, when she had ended, but a feeling of timidity in the presence of company kept him back. Just at that moment someone opened the score of "The Magic Flute" and exclaimed :—"What a pity that we cannot have some concerted music from Mozart's great opera.

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. and to omit those in Part I., at any rate until they have done what they can of the rest of the paper.

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PART I.

- I. Find what percentage of the contents of a cask of spirits must be replaced by water so that a wine merchant may gain 25 per cent. by retailing the mixture at the same price per gallon as he paid for the undiluted spirit.

- II. Divide

$$\frac{x^3}{b^2} - \frac{x^2a}{bc} - \frac{xl}{a} + \frac{b}{cd} - \frac{x}{ad} + \frac{x^2cd}{a^2b} \text{ by } \frac{x}{ab} - \frac{1}{c}$$

and find the value of

$$\left(\frac{a^3}{b} + c - \frac{b}{a^3}\right)^3.$$

- III. Show that

$$\begin{aligned} s(s-a-d)(s-d-b)(s-c-d) \\ = (s-a)(s-b)(s-c)(s-d) - abcd \end{aligned}$$

$$\text{where } 2s = a+b+c+d.$$

- IV. Solve the equations

$$(i.) \frac{ax-b^2}{(ax)^2+b} - \frac{(ax)^2-b}{c} = c.$$

$$(ii.) \frac{3+2x}{1+2x} - \frac{5+2x}{7+2x} = 1 - \frac{4x^2-2}{7+16x+4x^2}$$

PART II.

- V. The radius of a cylinder is r and its height h . It is found that by increasing either its radius or its height by x its volume is increased by the same amount. Show that

$$x = \frac{r(r-2h)}{h} \quad \text{What condition is there upon } r \text{ and } h \text{ in}$$

order that the problem may be possible?

- VI. Reduce to equivalent fractions with rational denominators

$$\frac{2}{\sqrt{5}-1} : \frac{2}{\sqrt{5}+\sqrt{3}-1} : \frac{2}{5+\sqrt[3]{3}}$$

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- VII. If $x + \frac{yz - x}{x^2 + y^2 + z^2}$ be unaltered by interchanging x and y , it will be unaltered by interchanging x and z , provided that x, y, z are all unequal.
- VIII. What two numbers are those whose sum, multiplied by the greater, is 204; and whose difference, multiplied by the less, is 35?

PART III.

- IX. What is a ratio of greater inequality? Prove that such a ratio is diminished by adding equal quantities to both its terms.
- Find a quantity, x , such that when it is added to the four given quantities, a, b, c, d , the result is four quantities in proportion. Exemplify with 3, 4, 9, 13.
- X. Find the number of combinations of 12 letters, a, b, c, d, \dots, r together: in how many of these will a and b occur together?
- XI. Find the co-efficient of x^3 in $(1 - 3x^3)^9$.
- XII. If $\sin A = \frac{3}{5}$ and $\tan B = \frac{1}{2}$, find the values of $\sin(A - B)$ and $\tan(2A + B)$.

XIII. Show that

$$(i.) \quad \frac{\sin 3\alpha}{\sin \alpha} - \frac{\cos 3\alpha}{\cos \alpha} = 2$$

$$(ii.) \quad \frac{\sin 3\alpha}{\sin \alpha} + \frac{\cos 3\alpha}{\cos \alpha} = 4\cos 2\alpha.$$

XIV. Solve the equations

$$(i.) \quad \tan 2x \cot x = \frac{2}{\sqrt{3}} + 1$$

$$(ii.) \quad \cos x + \sin x = 2\sqrt{2} \sin x \cos x.$$

PURE MATHEMATICS. II.

PROFESSOR BRAGG, M.A.

Time—Three hours.

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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., 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 tend 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 one side of a triangle be produced, the exterior angle shall be greater than either of the interior opposite angles.
If the bisector of an angle of a triangle divides the opposite side unequally, the greater segment is adjacent to the greater side.
- II. If a rectilinear figure has 50 equal angles, what is the size of each of them.
- III. If a straight line is divided into two parts, the squares on the whole line and on one part are together equal to twice the rectangle contained by the whole and that part, with the square on the other part.
- IV. Show how to draw a tangent to a given circle from a given point.

OC is drawn from the centre O of a circle perpendicular to a chord AB ; prove that the tangents at A, B intersect in OC produced.

PART II.

- V. If the base BC of a triangle ABC be trisected in D and E, the difference of the squares on AB and AC will be three times the difference of the squares on AD and AE.
- VI. If in a circle a straight line, which passes through the centre, bisect another which does not, it cuts it at right angles ; and if it cuts it at right angles, it bisects it.

Through one of the points of intersection of two circles draw a chord of one which shall be bisected by the other.

- VII. Show how to inscribe a circle in a given triangle.

Show how to inscribe an equilateral triangle in a square, so that a corner may be coincident with a corner of the square.

PART III.

- VIII. The sides about the equal angles of triangles which are equiangular to one another are proportionals; and those which are opposite to the equal angles are homologous sides.

Any point P on the circumference of a circle is joined to A B, the ends of a diameter; if the perpendicular to AB, at any point Q, meets the circle in X, and PA, PB in Y Z; then $QX^2 = QY \cdot QZ$.

- IX. If a straight line is parallel to each of two planes, it is parallel to their line of intersection.
- X. Explain how in the case of logarithms the negative mantissa is avoided.

Multiply together $\bar{1} \cdot 34$ and $\bar{2} \cdot 614$.

Given $\log 2 = \cdot 30103$ and $\log 7 = \cdot 84510$, find x , where

$$5^{3-x} = x\sqrt{98}.$$

- XI. A ladder whose length is 30 feet stands against a wall at an angle of 60° with the horizon; find the distance from the top of the ladder at which another ladder must be fastened, to make an angle of 75° with the horizon, and just reach a window 48 feet from the ground.

CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

- I. You are given a mixture of bromide and iodide of potassium. Explain how you would prove the presence of both bromine and iodine.

- II. Describe some method of determining the quantities of oxygen and nitrogen in atmospheric air. What other substances are present?
- III. Organic matter is wholly or partially destroyed (using that word in its common sense) by nitric and chloric acids, explain generally what takes place.
- IV. Describe the preparation and properties of phosphoretted hydrogen.
- V. Describe and explain the preparation of boracic acid from borax.
- VI. Describe and explain the preparation of potassium.
- VII. An acid solution gives the following reactions:—Yellow precipitate with sulphuretted hydrogen—a metallic precipitate on a piece of zinc placed in it, which, when dissolved in hydrochloric acid, gives a white precipitate with mercuric chloride which sometimes turns almost black. What metal is present, and in what form?
- VIII. Explain fully what you understand by latent heat, and describe some method of determining the latent heat of water.
- IX. Explain some method of determining the specific gravity of oils.

EXPERIMENTAL PHYSICS.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Explain briefly the principle of “The Conservation of Energy.” How does this principle deny the possibility of “Perpetual Motion?”
- II. How does Stokes explain the fact that sound is better heard when travelling with the wind than when travelling against it?
- III. Describe a method of measuring the expansion of a liquid by heat.

- IV. What laws regulate the pressure of a vapour in contact with its own liquid?
- V. Show by a diagram the mode of reflexion of a beam of parallel rays incident on a spherical concave mirror. Prove that the focus is half-way between the mirror and its centre.
- VI. Describe the thermopile. How may it be used to show the existence of diathermancy in rock-salt?
- VII. Explain roughly the formation of Newton's rings.
- VIII. "The electro-motive force between any two metals is equal to the sum of the electromotive forces between all the intervening metals." Explain this.
- IX. Describe some simple form of machine by which a current of electricity may be made to produce continuous motion.
- X. What is meant by the statement that the process by which work can be converted into heat is not completely reversible?

PHYSICAL GEOGRAPHY AND GEOLOGY.

PROFESSOR R. TATE, F.G.S., F.L.S.

Time—Three hours.

- I. How would you determine that a rock is a limestone; and how have limestones originated?
- II. Describe the physical features of the central region of Australia.
- III. How have salt lakes originated?
- IV. What is a *stalactite*, and how has it been formed?
- V. What is a *fossil*?
- VI. What is a *pebble*? Describe two or more kinds in respect to the origin of their present shape or other characters.
- VII. What is the difference between rain-water and river-water? Explain this!
- VIII. What is the general composition of coal? How has coal originated?

M A R C H , 1 8 8 8 .

UNIVERSITY SCHOLARSHIP EXAMINATION.

LATIN.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

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I. Translate—

Ecce autem gemini a Tenedo tranquilla per alta
 (Horresco referens) immensis orbibus angues
 Incumbunt pelago, pariterque ad litora tendunt ;
 Pectora quorum inter fluctus arrecta iubaeque
 Sanguineae superant undas ; pars cetera pontum
 Pone legit, sinuantque immensa volumine terga ;
 Fit sonitus spumante salo. Iamque arva tenebant,
 Ardentesque oculos suffecti sanguine et igni
 Sibila lambebant linguis vibrantibus ora.
 Diffugimus visu exsanguis : illi agmine certo
 Laocoonta petunt. Et primum parva duorum
 Corpora natorum serpens amplexus uterque
 Implicat, et miseros morsu depascitur artus ;
 Post ipsum, auxilio subeuntem ac tela ferentem,
 Corripiunt, spirisque ligant ingentibus ; et iam
 Bis medium amplexi, bis collo squamea circum
 Terga dati, superant capite et cervicibus altis.
 Ille simul manibus tendit divellere nodos,
 Perfusus sanie vittas atroque veneno ;
 Clamores simul horrendos ad sidera tollit :
 Qualis mugitus, fugit cum saucius aram
 Taurus et incertam excussit cervice securim.

II. Translate—

Turrin in praecipiti stantem summisque sub astra
 Eductam tectis, unde omnis Troia videri
 Et Danaum solitae naves et Achaica castra,
 Adgressi ferro circum, qua summa labantes

Iuncturas tabulata dabant, convellimus altis
Sedibus, inpulimusque : ea lapsa repente ruinam
Cum sonitu trahit, et Danaum super agmina late
Incidit. Ast alii subeunt ; nec saxa, nec ullum
Telorum interea cessat genus.

III. Translate—

“Tum vero omne mihi visum considerare in ignes
Ilium, et ex imo verti Neptunia Troia ;
Ac veluti summis antiquam in montibus ornum
Cum ferro accisam crebrisque bipennibus instant
Eruere agricolae certatim ; illa usque minatur
Et tremefacta comam concusso vertice nutat,
Volneribus donec paulatim evicta supremum
Congemuit traxitque iugis avolsa ruinam.
Descendo, ac ducente deo flammam inter et hostes
Expeditior ; dant tela locum, flammaeque recedunt.

IV. Translate, with notes on the italicised words, the following sentences :—

(a) Et si fata deum, si mens non *laeva* fuisset,
Impulerat ferro Argolicas foedare latebras.

(b) Et nunc *quod* patrias vento petiere Mycenae,
Arma deosque parant comites, pelagoque remenso
Improvisi aderunt.

(c) Vadimus immixti Danais *haud numine nostro*.

V. Scan the following lines—

i. Aedificant sectaque intexunt abiete costas—

ii. Haerent parietibus scalae, postisque sub ipsos—

iii. Panthus Othyraes, arcis Phoebique sacerdos.

VI. Translate—

Ipsae Hannibal, qua turris mobilis omnia munimenta urbis
superans altitudine agebatur, hortator aderat. Quae quum
admota catapultis balistisque per omnia tabulata dispositis
muros defensoribus nudasset, tum Hannibal occasionem
ratus quingentos ferme Afros cum dolabris ad subruendum
ab imo murum mittit. Nec erat difficile opus quod caementa
non calce durata erant sed interlita luto structuræ antiq̄ue
genere.

VII. Translate—

Ratem unam ducentos longam pedes quinquaginta latam a
terra in amnem porrexerunt, quam, ne secunda aqua

deferretur, pluribus validis retinaculis parte superiore ripæ religatam pontis in modum humo injecta constraverunt, ut belluæ audacter velut per solum ingrederentur: altera ratis æque lata longa pedes centum, ad trajiciendum flumen apta, huic copulata est, et, quum elephanti per stabilem ratem tamquam viam prægredientibus feminis acti ubi in minorem adplicatam transgressi sunt, extemplo resolutis quibus leviter adnexa erat vinculis, ab actuariis aliquot navibus ad alteram ripam pertrahitur.

VIII. Translate—

Hannibal consistere signa jussit, Gallisque ad visenda loca præmissis postquam comperit transitum ea non esse, castra inter confragosa omnia præruptaque quam extentissima potest valle locat. Tum per eosdem Gallos haud sane multum lingua moribusque abhorrentes, quum se immiscuisent colloquiis montanorum, edoctus, interdiu tantum obsideri saltum, nocte in sua quemque dilabi tecta, luce prima subiit tumulos ut ex aperto atque interdiu vim per angustias facturus. Die deinde simulando aliud quam quod parabatur consumpto, quum eodem quo constiterant loco castra communissent, ubi primum digressos tumulis montanos laxatasque sensit custodias, pluribus ignibus quam pro numero manentium in speciem factis impedimentisque cum equite relictis et maxima parte peditem, ipse cum expeditis—acerrimo quoque viro—raptim angustias evadit iisque ipsis tumulis, quos hostes tenerant, consedit.

IX. Translate—

Romæ aut circa urbem multa ea hieme prodigia facta aut, quod evenire solet motis semel in religionem animis, multa nuntiata et temere credita sunt; in quibus ingenuum infantem semestrem in foro holitorio triumphum clamasse, et foro bovario bovem in tertiam contignationem sua sponte escendisse atque inde tumultu habitatorum territorium sese dejecisse, et navium speciem de cælo adfulsisse, et ædem Spei, quæ est in foro holitorio, fulmine ictam, et Lanuvii hastam se commovisse et corvum in ædem Junonis devolasse atque ipso pulvinario consedissee, et in agro Amiternino multis locis hominum specie procul candida veste visos nec cum ullo congressos, et in Piceno lapidibus pluvisse, et Cære sortes extenuatas, et in Gallia lupum vigili gladium ex vagina raptum abstulisse. Ob cætera prodigia libros

adire decemviri jussi: quod autem lapidibus pluvisset in Piceno, novemdiale sacrum edictum, et subinde aliis procurandis prope tota civitas operata fuit.

X. Explain the following terms as used by Livy:—
Phalarica, caetra, vineae, paludatus, praetorium, praetoria navis, milites classici, velites, celoces, lixae.

XI. Describe the position and give the modern names of the following places;—

Saguntum, Herculis Columnae, Massilia, Melita, Mutina.

XII. Indicate the quantity of the penultimate syllable in the following words:

Sarcinae, conquisitor, obsitus, trucido, stativa

GREEK.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

EK. αἰαῖ· παρέστηχ', ὡς ἔοικ', ἀγὼν μέγας,
πλήρης στεναγμῶν οὐδὲ δακρῶν κενός.
κάγῳ γὰρ οὐκ ἔθνησκον οὐ μ' ἐχρήν θανεῖν,
οὐδ' ὠλεσέν με Ζεὺς, τρέφει δ', ὅπως ὀρῶ
κακῶν κάκ' ἄλλα μείζον' ἢ τάλαιν' ἐγώ.
εἰ δ' ἔστι τοῖς δούλοισι τοὺς ἐλευθέρους
μη λυπρὰ μηδὲ καρδίας δηκτῆρια
ἐξιστορήσαι, σοὶ μὲν εἰρήσθαι χρεών,
ἡμᾶς δ' ἀκούσαι τοὺς ἐρωτῶντας τάδε.

II. Translate—

ΠΟΛΥΞ. μήτηρ, πιθοῦ μοι· καὶ σύ, παῖ Δαερτίου,
χάλα τοκεῦσιν εἰκότως θυμουμένοις.
σύ τ', ὦ τάλαινα, τοῖς κρατοῦσι μὴ μάχου.
βούλει πεσεῖν πρὸς οὐδας, ἐλκῶσαι τε σὸν
γέροντα χρῶτα πρὸς βίαν ὠθουμένη,
ἀσχημονῆσαι τ' ἐκ νέου βραχίονος
σπασθεῖς; ἢ πέσειν· μὴ σύ γ'· οὐ γὰρ ἄξιον.
ἀλλ', ὦ φίλη μοι μήτηρ, ἠδίστην χέρα
δοῦς καὶ παρεῖαν προσβαλεῖν παρηίδι·

ὡς οὐποτ' αὐθις, ἀλλὰ νῦν πανύστατον
 ἀκτίνα κύκλον θ' ἡλίου προσόψομαι.
 τέλος δέχει δὴ τῶν ἐμῶν προσφθεγμάτων.
 ὦ μήτηρ, ὦ τεκοῦς, ἀπειμι δὴ κάτω.

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III. Translate—

XO. σὺ μὲν, ὦ πατρὶς Ἰλιάς,
 τῶν ἀπορθήτων πόλις οὐκέτι λέξει.
 τοῖον Ἑλλάνων νέφος ἀμφί σε κρύπτει
 δορὶ δὴ δορὶ πέρσαι.
 ἀπὸ δὲ στεφάναν κέκαρσαι
 πύργων, κατὰ δ' αἰθέλου
 κηλίδ' οἰκτροτάταν κέχρωσαι,
 τάλαιν', οὐκέτι σ' ἐμβατεύσω.

IV. Translate—

ὁ δὲ Σωκράτης ἀνακαθίζομενος ἐπὶ τὴν κλίνην συνέκαμψέ τε
 τὸ σκέλος καὶ ἐξέτριψε τῇ χειρὶ, καὶ τρίβων ἄμα, ὡς ἀποπον,
 ἔφη, ὦ ἄνδρες, ἔοικέ τι εἶναι τοῦτο, ὃ καλοῦσιν οἱ ἀνθρωποὶ
 ἡδύ· ὡς θαυμασιῶς πέφυκε πρὸς τὸ δοκοῦν ἐναντίον εἶναι, τὸ
 λυπηρόν, τῷ ἄμα μὲν αὐτῷ μὴ ἐθέλειν παραγίγνεσθαι τῷ
 ἀνθρώπῳ, ἔαν δέ τις διώκῃ τὸ ἕτερον καὶ λαμβάνῃ, σχεδόν τι
 ἀναγκάζεσθαι λαμβάνειν καὶ τὸ ἕτερον, ὥσπερ ἐκ μιᾶς
 κορυφῆς συνημμένω δὴ ὄντε. καὶ μοι δοκεῖ, ἔφη, εἰ ἐνενόησεν
 αὐτὰ Αἰσωπος, μῦθον ἂν συνθεῖναι, ὡς ὁ θεὸς βουλόμενος
 αὐτὰ διαλλάξαι πολεμοῦντα, ἐπειδὴ οὐκ ἡδύνατο, ξυνηψεν εἰς
 ταῦτ' αὐτοῖς τὰς κορυφάς, καὶ διὰ ταῦτα ὧ ἂν τὸ ἕτερον
 παραγένηται ἐπακολουθεῖ ἕτερον καὶ τὸ ἕτερον. ὥσπερ οὖν
 καὶ αὐτῷ μοι ἔοικεν, ἐπειδὴ ὑπὸ τοῦ δεσμοῦ ἦν ἐν τῷ σκέλει
 [πρότερον] τὸ ἀλγεινόν, ἴκειν δὴ φαίνεται ἐπακολουθοῦν τὸ
 ἡδύ.

V. Translate—

αὐτῇ ἡ οὐσία ἴς λόγον δίδομεν τοῦ εἶναι καὶ ἐρωτῶντες καὶ
 ἀποκρινόμενοι, πότερον ὡσαύτως αἰεὶ ἔχει κατὰ ταῦτα ἢ ἄλλοτ'
 ἄλλως; αὐτὸ τὸ ἴσον, αὐτὸ τὸ καλόν, αὐτὸ ἕκαστον ὁ ἔστι, τὸ
 ὄν, μὴ ποτε μεταβολὴν καὶ ἡντινοῦν ἐνδέχεται; ἴ' αἰεὶ αὐτῶν
 ἕκαστον ὁ ἔστι, μονοειδὲς ὄν αὐτὸ καθ' αὐτό, ὡσαύτως κατὰ
 ταῦτα ἔχει καὶ οὐδέποτε οὐδαμῇ οὐδαμῶς ἀλλοίωσιν οὐδεμίαν
 ἐνδέχεται.

Parse all the words underlined in the above passages, and
 scan the first three lines in I.

Give a brief description of the structure of a Greek theatre.

Sum up the arguments advanced in the *Phaedo* to prove the immortality of the soul.

VI. Translate into Greek prose—

When my sons grow up, visit them with punishment, my friends, and vex them in the same way that I have vexed you, if they seem to you to care for riches, or for any other thing, before virtue : and if they think that they are something when they are nothing at all, reproach them, as I have reproached you, for not caring for what they should, and for thinking that they are great men when in fact they are worthless. And if you will do this, I myself and my sons shall have received our deserts at your hands.

But now the time has come, and we must go hence ; I to die, and you to live. Whether life or death is better is known to God, and to God only.

- VII. i. How are desiderative verbs formed in Greek ?
 ii. What are the most important suffixes for forming substantives in Greek ?
 iii. Illustrate by examples the various ways of expressing a purpose in Greek ?

GREEK AND LATIN COMPOSITION AND GRAMMAR.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate into Greek Prose :—

These Sirens resided in certain pleasant islands, and when from their watch-tower, they saw any ship approaching, they first detained the sailors by their music ; then enticing them to shore, destroyed them.

Their singing was not of one and the same kind, but they adapted their tunes exactly to the nature of each person, in order to captivate and secure him. And so destructive had they been, that these islands of the Sirens appeared, to a very great distance, white with the bones of their unburied captives,

Lord Bacon,

II. Translate into Latin Prose :—

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By repeated victories over his neighbours, Cassibelan had acquired high renown among the natives. The tribes on the right bank of the Thames had invited him to place himself at their head ; and his conduct during the war seems to have justified the selection. Deserted by his confederates, he retreated into his own territories that he might place the Thames between himself and his pursuers. At the only ford he ordered sharp stakes to be fixed in the bed of the river ; lined the left bank with palisades ; and stationed behind these the principal part of his army. But the advance of the Romans was not to be retarded by artificial difficulties. The cavalry, without hesitation, plunged into the river ; the infantry followed, though the water reached to their shoulders ; and the Britons, intimidated by the intrepid aspect of the invaders, fled into the woods.

Dr. Lingard.

- III. (a) Contract the following words in accordance with Attic usage—*δοιδή, ζηλόεις, οινόεις, τιμάης, λύηαι*.
- (b) Decline in full—*δύναμις, γυνή, Ζεός*.
- (c) Write down the Greek symbols for the numerals 6, 90, and 900.
- (d) Give the first person singular, perfect passive, of—*ἐλέγχω, γράφω, φαίνω* ; and the first person singular, future active, of—*πίνω, ἄδω, πλέω*.
- (e) Distinguish the use of the Genitive, Dative, and Accusative in Greek to mark time, and give illustrative examples.
- i. Classify the Latin nouns of the third declension in Latin which form the plural in *ium*.
 - ii. Compare *frugi, senex, beneficus*, and explain the difference between the interrogatives *quis* and *qui*.
 - iii. Enumerate the various modes of forming the perfect tense in Latin.
- iv. Translate *Cui bono fuit?* and quote other examples of a double dative in Latin.

PURE MATHEMATICS. I.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. A contractor undertook to supply 300 tons of coal at 22s. 6d. per ton; he delivered them by weight in sacks estimated to weigh $3\frac{1}{2}$ lbs. and to contain 1 cwt. of coal; if the sacks really weighed 7 lbs. each, what was the money value of his fraud?
- II. Show that $px^3 + (p^2 + q)x^2 + (2pq + r)x + q^2 + s$, and $px^3 + (p^2 - q)x^2 + rx - q^2 + s$, either both are, or both are not, exactly divisible by $x^2 + px + q$.
- III. What meanings are attached to the symbols x^{-y} and $x^{\frac{1}{y}}$ where y is a positive integer, and why?
Show that if $m = a^x$, $n = a^y$, $m^y n^x = a^{\frac{2}{z}}$, then $xyz = 1$.
- IV. What conditions must hold concerning a , b , and c in the quadratic equation $ax^2 + bx + c = 0$ in order that the roots may be:—
- (1) Imaginary.
 - (2) Equal with opposite signs.
 - (3) Both positive.
- Show that the roots of $x^2 + 2(p + q)x + 2(p^2 + q^2) = 0$ are imaginary.
- V. Find the sum of the first n natural numbers; also the sum of the squares of the first n natural numbers.
Sum the series
$$2 + 6 + 10 + \dots + 4n^2 - 2.$$
- VI. Show that the sum of the co-efficients of the odd terms in the expansion of $(1 + x)^n$ is equal to the sum of the co-efficients of the even terms.
What is the number of terms in the expansion of
(1) $(a + b)^9$, (2) $(a + b + c)^9$?
- VII. Solve the equations

$$\begin{aligned} \text{(i.) } \quad a(b - y) + b(a - x) &= c(a - x)(b - y) \\ a^2(b - y) + b^2(a - x) &= c^2(a - x)(b - y). \end{aligned}$$

$$(ii.) \quad \sqrt{\frac{a}{b}(bx - a^2)} - \sqrt{\frac{b}{a}(ax - b^2)} = a - b.$$

$$(iii.) \quad (z + x)(x + y) = a^2.$$

$$(x + y)(y + z) = b^2.$$

$$(y + z)(z + x) = c^2.$$

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VIII. A man travelling by train observes that eleven telegraph posts appear to go by in a minute. In another part of the journey the train is travelling twice as fast as it was before, and there are two posts fewer in a mile: the increase in the number of posts that appear to go by in a minute is one more than the increase in the number of yards between each post. Find the rate of the train and the distance between two posts at each part of the journey.

IX. Express $\sin A$, $\cos A$, $\cot A$, in terms of $\operatorname{cosec} A$.

Prove that

$$\sin A \left(\tan A + 2\cot 2A \right) = \cos^2 A \left(1 + \tan A \tan \frac{A}{2} \right)$$

X. Find the values of $\sin 60^\circ$, $\cot 18^\circ$, $\cos 33^\circ 45'$.

XI. Find expressions including all the angles which satisfy the equation

$$4\sin A. \sin 3A = 1.$$

PURE MATHEMATICS. II.

PROFESSOR BRAGG, M.A.

Time—Three hours.

I. In any triangle the exterior angle made by producing a side is equal to the sum of the two interior opposite angles.

BS and CT are perpendiculars from B and C on any line through the vertex A of the triangle ABC : R is the middle point of the base. Show that $RS = RT$.

II. If in the triangles ABC , DEF , the angle B is equal to the angle E , the side AC to the side DF , and the angle ACB supplementary to the angle DFE , then the side AB is equal to the side DE .

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In the triangle ABC , AC is greater than AB : from AC is cut off AD equal to half the sum of AC and AB : AB is produced to E so that AE is equal to AD : show that DE bisects BC .

- III. A circle is inscribed in an isosceles triangle, and a second circle is drawn touching the sides of the triangle at the extremities of the base; show that the tangents to the inscribed circle, at the points where the circles cut, meet on the circumference of the second circle.
- IV. Show that if the line joining the centres of the inscribed and circumscribed circles of a triangle passes through a vertex the triangle is isosceles.
- V. If four straight lines are proportionals the rectangle contained by the extremes is equal to the rectangle contained by the means.

If O be the centre of a fixed circle, and a tangent be drawn to this circle to meet another fixed circle passing through O in P and Q , then $OP.OQ$ is constant.

- VI. If a straight line be perpendicular to each of two intersecting straight lines at their point of intersection, it is also perpendicular to the plane which passes through them.

$ABCD$ is a face and AE a diagonal of a cube, and BG is drawn perpendicular to AE ; show that DG is also perpendicular to AE .

- VII. Eliminate θ from the equations

$$m = \operatorname{cosec}\theta - \sin\theta.$$

$$n = \sec\theta - \cos\theta.$$

- VIII. Show that the area of a triangle is equal to

$$\frac{1}{2}(a^2 - b^2) \frac{\sin A \sin B}{\sin(A - B)}$$

employing the usual notation.

- IX. Two ships, half-a-mile apart, find that the angles subtended by the other ship and a fort, are respectively $56^\circ 19'$ and $63^\circ 41'$. Find the distance of each ship from the fort.

$$\log 2 = \cdot 30103 \quad L \sin 56^\circ 19' = 9.92018$$

$$\log 3 = \cdot 47712 \quad L \sin 63^\circ 41' = 9.95248$$

$$\log 11 = 1.04139 \quad \log 845.54 = 2.92713$$

$$\log 910.82 = 2.95943$$

APPLIED MATHEMATICS.

PROFESSOR BRAGG, M.A.

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Time—Three hours.

- I. If two forces acting on a point be in the ratio of 2 to 3, find the angle between their directions when their resultant is a mean proportional between them.
- II. What are the conditions of equilibrium of a number of uniplanar forces acting on a body?
How are they to be modified when one point of the body is fixed?
A uniform beam AB , whose weight is W , and length 6 feet, rests on a vertical prop CD of length 3 feet; the other end A is on the horizontal plane AD , and is prevented from sliding by a string DA , of length 4 feet. Find the tension of the string.
- III. Show how to draw from one of the angles of a rectangle of uniform thickness a line cutting off a triangle, so that the remainder of the rectangle, when subtended by its obtuse angle may hang with its parallel sides horizontal.
- IV. A body of weight W rests on a rough horizontal table: two forces P and Q act on it in directions at right angles to each other; what is the least value of the coefficient of friction which will allow the body to remain at rest?
- V. A point moving with uniformly decreasing velocity moves over 100 feet in two seconds and 60 feet in the next two seconds. When and where will it come to rest?
- VI. A body weighing 12 cwt is lying at rest on a smooth horizontal plane: what uniform force will be required to move it through 100 yards in a minute? What will be the force if the plane be not smooth but have a coefficient of friction $\frac{1}{3}$?
- VII. A body is projected with a velocity u in a direction making an angle α with the horizontal. Show that it will be moving in a direction at right angles to its former course at the end of a time $\frac{u}{g} \operatorname{cosec} \alpha$.
- VIII. Two equal squares are immersed vertically in a fluid, one with a side, the other with a diagonal vertical: find the ratio of the pressures.

- IX. A hollow copper sphere, whose internal diameter is 2 feet, just floats in water : find its thickness when the specific gravity of copper is 8.788.
- X. A cylindrical tube, 24 inches long and closed at one end, contains mercury which occupies 16 inches of its length : if the tube be now inverted and the open end be inserted into a basin of mercury : find the altitude of the mercury when at rest.

ENGLISH LITERATURE.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

- I. Explain the allusions in the following quotations, and describe briefly the character of the poems from which they are selected—
1. "The lonely mountains o're
And the resounding shore
A voice of weeping heard and loud lament ;
From haunted spring and dale
Edg'd with poplar pale
The parting Genius is with sighing sent ;
With flowre-inwov'n tresses torn
The nymphs in twilight shade of tangled thickets mourn."
 2. "What gave great Villiers to th' assassin's knife,
And fix'd disease on Harley's closing life ?
What murder'd Wentworth and what exil'd Hyde,
By kings protected and to kings ally'd ?
What but their wish indulg'd in courts to shine,
And pow'r too great to keep or to resign ?"
 3. "To him the mighty Mother did unveil
Her awful face : The dauntless Child
Stretch'd forth his little arms, and smil'd.
' This pencil take (she said), whose colours clear
Richly paint the vernal year :
Thine too these golden keys, immortal Boy !
This can unlock the gates of Joy ;
Of Horror that, and thrilling Fears,
Or ope the sacred source of sympathetic tears.'"

4. "The cold sweat melted from their limbs,
Nor rot nor reek did they :
The look with which they looked on me
Had never passed away."
5. "Glencairn and stout Parkhead were nigh,
Obsequious at their Regent's rein,
And haggard Lindesay's iron eye,
That saw fair Mary weep in vain."
6. "Aloud she shrieked !—for Hermes re-appears !
Round the dear shade she would have clung—'tis vain :
The hours are past—too brief had they been years ;
And him no mortal effort can detain :
Swift, toward the realms that know not earthly day,
He through the portal takes his silent way,
And on the palace-floor a lifeless corse she lay."

II. Explain the provincial terms in the following passage—

"But now the supper crowns their simple board,
The healsome parritch, chief o' Scotia's food :
The soupe their only Hawkie does afford,
That 'yont the hallen snugly chows her cood ;
The dame brings forth in complimental mood,
To grace the lad, her weel-hain'd kebbeck, fell,
An' aft he's prest, an' aft he ca's it guid ;
The frugal wife, garrulous, will tell,
How 'twas a towmond auld, sin' lint was i' the bell."

III. Give the substance of Lord Bacon's Essay on *Studies*.

IV. State what you know about the literary works of—

Sir Philip Sidney, Sir Thomas Browne, Daniel Defoe, Sir William Temple.

V. Enumerate the chief Anglican divines who, in the 16th and 17th Centuries, published important works in English Prose, and discuss their various styles.

VI. Name the authors from whom the following passages are taken—

- a. O eloquent, just, and mighty Death ! whom none could advise, thou hast persuaded ; what none hath dared, thou hast done ; and whom all the world hath flattered, thou only hast cast out of the world and despised ; thou hast drawn together all the far-stretched greatness, all the pride, cruelty, and ambition of man, and covered it all over with these two narrow words, *Hic jacet !*

- b. As good almost kill a man as kill a good book. Who kills a man kills a reasonable creature, God's image : but he who destroys a good book, kills reason itself, kills the image of God, as it were in the eye. Many a man lives a burden to the earth ; but a good book is the precious life-blood of a master spirit, embalmed and treasured up on purpose to a life beyond life.
- c. In vain too we pursue that phantom Time, too small, and yet too mighty for our grasp ; when shrinking to a narrow point, it escapes our hold, or mocks our scanty thought by swelling to eternity an object unproportioned to our capacity, as is thy being, O thou ancient Cause ! older than Time, yet young with fresh Eternity.

ENGLISH PHILOLOGY.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

- I. "The English and the Sanskrit are two out of the many channels that have brought the water from the old Aryan well-head down to our days."
Illustrate this remark by reference to the grammar and vocabulary of the two languages.
- II. "But few Celtic words have been admitted to the right of English citizenship."
Give, at least, five specimens of such words. What inference as to the condition of Celts under English sway may be drawn from the nature of the Celtic words existing in English ?
- III. "Since the Norman Conquest the bare Future has always been expressed, at least in Southern England, by *I shall, thou wilt, he will.*"
What explanation may be given of this curious anomaly ? Illustrate from the cognate form in Old English the origin of *-bo* in *amabo*. What is the derivation of *shall* ?
- IV. What is abnormal in the form of the numerals *eleven* and *twelve* ? What explanation may be given of the anomaly ? What is the equivalent in Old English for *secundus* ? What is the origin of the indefinite article *a* ?

- V. Decline in the singular and plural the Old English equivalents for—
Eye, door, ship ;
and decline in the singular, dual, and plural the personal pronoun *Ic*.
- VI. Write out the present indicative of the verb *lufian*, and give the Northern, Midland, and Southern forms of the phrase, *We stand singing* (present participle).
- VII. Give the modern equivalents for the following Old English words—
Ymbe, gescy, cirictune, gemaene, husel ;
and the derivation of—
Lammas, knave, wassail, fellow, sleight (of hand).
- VIII. Parse the italicised words in the following phrases—
(a) I tell you *what*.
(b) They hate *each other*.
(c) It *needs* must be.
(d) He went *a-hunting*.
(e) It is different *nowadays*.
- IX. Comment upon the italicised words in the following—
1. I don't care a *curse*.
2. Here's a *wrinkle* for you,
3. I *diddled* him.
4. In *them* days.
5. The door's *ajar*.
- X. Translate into Modern English—
And ic bidde ealle tha tha aefter me cumen. beon hi mine sunes. beon hi mine brethre. outhre kyningas tha aefter me cumen. that ure gyfe mote standen swa swa hi willen beon delnimende on tha eke lif. and swa swa hi willen aetbeorstan that ece wite. Swa hwa swa ure gife outhre othre godene manne gyfe wansiath, wansie him seo heofenlice iateward on heofenrice. And swa hwa swa hit eceth, ece him seo heofenlice iateward on heofenrice.
Give the component parts of the compound words *delnimende* and *aetbeorstan* ; and parse *wansie*, *him*, *eceth*, and *seo*.

FRENCH.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

Car Dieu mit ces degrés aux fortunes humaines :
 Les uns vont tout courbés sous le fardeau des peines :
 Au banquet du bonheur bien peu sont conviés.
 Tous n'y sont point assis également à l'aise.
 Une loi, qui d'en bas semble injuste et mauvaise,
 Dit aux uns : JOUISSEZ ! aux autres : ENVIEZ !

* * * *

Donnez ! pour être aimés du Dieu qui se fit homme,
 Pour que le méchant même en s'inclinant vous nomme,
 Pour que votre foyer soit calme et fraternel ;
 Donnez ! afin qu'un jour, à votre heure dernière,
 Contre tous vos péchés vous ayez la prière
 D'un mendiant puissant au ciel !

Describe the metre of these verses, and mark the scansion
 of the first two lines.

Parse :—*mit, vont, assis, soit, ayez, fit.*

II. Translate—

Enfants, vous êtes l'aube, et mon âme est la plaine
 Qui des plus douces fleurs embaume son haleine
 Quand vous la respirez ;
 Mon âme est le forêt dont les sombres ramures
 S'emplissent pour vous seul de suaves murmures
 Et de rayons dorés !

* * * *

Vous êtes parmi nous la colombe de l'arche.
 Vos pieds tendres et purs n'ont point l'âge ou l'on marche,
 Vos ailes sont d'azur.
 Sans le comprendre encor, vous regardez le monde.
 Double virginite ! corps ou rien n'est immonde,
 Âme ou rien n'est impur !

* * * *

Seigneur ! préservez-moi, préservez ceux que j'aime,
 Frères, parents, amis, et mes ennemis même
 Dans le mal triomphants,

De jamais voir, Seigneur ! l'été sans fleurs vermeilles,
 La cage sans oiseaux, la ruche sans abeilles,
 La maison sans enfants !

Write down and mark with the proper accent the words in this passage which have been left unaccentuated.

University
Scholarship
Examination,
March, 1888.

III. Translate—

O rois, veillez, veillez ! tâchez d'avoir régné.
Ne nous reprenez pas ce qu'on avait gagné ;
Ne faites point, des coups d'une bride rebelle,
Cabrer la liberté qui vous porte avec elle ;
Soyez de votre temps, écoutez ce qu'on dit,
Et tâchez d'être grands, car le peuple grandit.

Illustrate the political bias of this passage by reference to the concluding lines of *Les Feuilles d'Automne* beginning :—
Je hais l'oppression d'une haine profonde.

IV. Explain the meaning of the following words in *Les Feuilles d'Automne* :—*Labarum, fanal, aléatoire, luth, boussole.*

V. Translate—

Des. Venez, venez, noble jeune homme. . . . Oh !
pardon, madame la baronne, pardon, monsieur le marquis,
mais je suis si ému. . . .

Le Mar. Qu'est-ce donc ?

Des. Tout le village . . . que j'ai reconstruit, et à qui
je n'ai pu taire le retour miraculeux de notre jeune
guerrier. . . .

La Bar. Eh quoi ! vous vous êtes permis. . . .

Des. Cette nouvelle inattendue a excité une surprise, un
enthousiasme universel. . . . Ils sont là . . . deux
cents paysans . . . qui demandent à grands cris le
compagnon de leurs premiers jeux . . . le héros de
Valentina !

Le Mar. Monsieur Destournelles !

Des. Si monsieur le marquis veut se mettre à cette fenêtre,
il jouira d'un spectacle bien émouvant : deux cents
villageois se disputant les mains de leur nouveau seigneur.

Parse—*venez, ému, pu, veut, leurs.*

Write a note on the construction of the following phrase :—
Deux cents villageois se disputant les mains de leur nouveau seigneur.

VI. Translate—

Le Mar. Et que chante ce grimoire ? . . . (*Il déploie le*

papier et lit.) “L’an 1817, ce jour d’hui 5 octobre, à la requête du sieur Bernard Stamply. . . .” Eh! quoi, Bernard? . . . ce n’est pas possible. Voyons. . . . “Domicilié de droit, et logeant de fait au château de La Seiglière! . . .” Comment, Bernard? . . . Sortez, Jasmin. (*Jasmin sort par le fond.*—*Le Marquis continuant de lire.*) “Agissant aux poursuites et diligences de maître Destournelles. . . .” (*Le Marquis, au nom de Destournelles, lève les yeux par dessus son binocle sur l’avocat, qui se tient impassible de l’autre côté de la scène.*) (*A part.*) Ah! très-bien, c’est l’affaire qui l’amène ici.

Le Mar. reprenant sa lecture. “De maître Destournelles . . . j’ai, Guillaume Durousseau, huissier, baillé assignation au sieur Louis Tancrede Hector, marquis de La Seiglière, sans domicile connu . . .” (*Nouveau coup d’œil du Marquis sur Destournelles.*) “Mais logeant indûment au dit château de La Seiglière, où je me suis exprès transporté et où parlant à une femme à son service, à comparoir. . . . (*Cherchant à comprendre.*) Comparoir? . . .

Des. Comparoir, pour comparaître . . . terme de pratique.

Le Mar. Ah! . . . c’est un terme . . . de . . . (*A part.*) Pardieu! je suis curieux de savoir jusqu’où ils ont poussé l’insolence et l’audace.

Write philological notes on *lui, indûment, huisser*.

Explain the following words and phrases as employed in your text book:—

Mouillettes, sarrau, être sur les dents, c’en était fait, Je vous le donne en cent.

VII. Translate—

Roger. Je vous avoue, madame, que je ne vous comprends pas.

Charlotte. Vous allez me comprendre. Madame de Maintenon me fit alors monter dans sa voiture, me conduisit chez Son Eminence le nonce du pape, et réclama pour moi l’annulation de notre mariage,

Roger. L’annulation de notre mariage?

Charlotte. Son Eminence écrivit aussitôt à Rome, et, comme l’affaire avait été chaudement recommandée par Sa Majesté elle-même à notre ambassadeur, presque courrier par courrier, madame de Maintenon reçut le bref. . . .

Roger. Qui cassait notre mariage ?

Charlotte. Oui, monsieur. . .

Roger. Notre mariage est cassé ?

Charlotte. Cassé, monsieur . . . Soyez donc heureux . . . soyez donc libre . . . mais reconnaissez que j'ai le droit de partager, sinon le bonheur, du moins la liberté qui vous est rendue.

University
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Examination,
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VIII. Translate into French :—

A. Permit me, sir, to present to you a letter of introduction from the French Ambassador at the Court of St. James.

B. Ah! Thank you. Please sit down. I see that my friend speaks highly of your character and attainments, and requests me to procure for you, if possible, some educational post in this colony. Have you any experience in teaching ?

A. No, sir.

B. That is unfortunate. Have you been educated at a public school ?

A. Yes, I studied for many years at the chief military school in Paris.

B. Good. Then you know something of mathematics, I suppose.

A. I consider mathematics my strong point, if I have any strong point.

B. Very well. You can teach drawing, doubtless, and of course can speak English.

A. Yes. Drawing is taught in all French Schools. As regards English, I cannot speak it very well, but I can make myself understood.

B. Very well, sir. If you will be good enough to send me your testimonials, I will forward them to the Inspector-General of Schools with a strong recommendation. Good day.

A. I am extremely grateful for your kindness. Good day.

GERMAN.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Translate—

Und es sagte darauf der gute Vater mit Nachdruck:
 Solch ein Wetter ist selten zu solcher Ernte gekommen,
 Und wir bringen die Frucht herein, wie das Heu schon herein ist,
 Trocken; der Himmel ist hell, es ist kein Wölkchen zu sehen,
 Und von Morgen wehet der Wind mit lieblicher Kühlung.
 Das ist beständiges Wetter! und überreif ist das Korn schon;
 Morgen fangen wir an zu schneiden die reichliche Ernte.

Scan the first three lines in the above.

II. Translate:—

Denn wir können die Kinder nach unserm Sinne nicht formen;
 So wie Gott sie uns gab, so muß man sie haben und lieben,
 Sie erziehen aufs Beste und jeglichen lassen gewähren.
 Denn der eine hat die, die anderen andere Gaben;
 Jeder braucht sie, und jeder ist doch nur auf eigene Weise
 Gut und glücklich. Ich lasse mir meinen Herrmann nicht schelten;
 Denn, ich weiß es, er ist der Güter, die er dereinst erbt,
 Werth, und ein trefflicher Wirth, ein Muster Bürgern und Bauern,
 Und im Rathe gewiß, ich seh' es voraus, nicht der Letzte.

III. Translate:—

Wie der wandernde Mann, der vor dem Sinken der Sonne
 Sie noch einmal ins Auge, die schnellverschwindende, faßte.
 Dann im dunkeln Gebüsch und an der Seite des Felsens
 Schweben siehet ihr Bild; wohin er die Blicke nur wendet,
 Eilet es vor und glänzt und schwankt in herrlichen Farben:
 So bewegte vor Hermann die liebliche Bildung des Mädchens
 Sanft sich vorbei, und schien dem Pfad' ins Getreide zu folgen.

IV. Translate:—

Das Fräulein. Ist der Major schon wieder fort? —
 Franciska, ich glaube, ich wäre jetzt schon wieder ruhig genug,
 daß ich ihn hätte hier behalten können.

Franciska. Und ich will Sie noch ruhiger machen.

Das Fräulein. Desto besser! Sein Brief, o sein Brief!
 Jede Zeile sprach den ehrlichen, edlen Mann. Jede Weigerung,
 mich zu beisthen, betheuerte mir seine Liebe. — Er wird es wohl
 gemerkt haben, daß wir den Brief gelesen. — Mag er doch,
 wenn er nur kommt. Er kommt doch gewiß? — Bloß ein
 wenig zu viel Stolz, Franciska, scheint mir in seiner Aufführung
 zu sein. Denn auch seiner Geliebten sein Glück nicht wollen zu
 danken haben, ist Stolz, unverzeihlicher Stolz! Wenn er mir
 diesen zu stark merken läßt, Franciska —

Franciska. So wollen Sie seiner entsagen?

V. Translate :—

v. Tellh. Ha, Werner! ich suche dich überall. Wo steckst du?

Werner. Und ich habe Sie gesucht, Herr Major; so geht's mit dem Suchen. — Ich bringe Ihnen gar eine gute Nachricht.

v. Tellheim. Ah, ich brauche jetzt nicht deine Nachrichten, ich brauche dein Geld. Geschwind, Werner, gieb mir so viel du hast; und dann suche so viel aufzubringen als du kannst.

Werner. Herr Major? — Nun, bei meiner armen Seele, habe ich's doch gesagt: er wird Geld von mir borgen, wenn er selber welches zu verleihen hat.

v. Tellheim. Du suchst doch nicht Ausflüchte!

Werner. Damit ich ihm nichts vorzuwerfen habe, so nimmt er mir's mit der Rechten, und giebt mir's mit der Linken wieder.

v. Tellheim. Halte mich nicht auf, Werner! Ich habe den guten Willen, dir es wieder zu geben; aber wann und wie?—das weiß Gott!

Give some account of the plot of *Minna von Barnhelm* and describe the character of Riccaut.

VI. Translate :—

Sokrates wünschte den Xenophon, einen schönen Jüngling von trefflichen Geistesgaben, in seinen Umgang zu ziehen. Einst begegnete er ihm in einer engen Gasse und hielt ihm seinen Stod vor. Der Jüngling blieb stehen. „Sage mir doch, begann Sokrates, wo kauft man Mehl?“ „Auf dem Markte,“ war die Antwort. „Und Del?“ „Ebendasselbst.“ „Aber wo geht man hin, um weise zu werden?“ Der Jüngling schwieg und sann auf eine Antwort. „Folge mir,“ sprach der Weise, „ich will es dir sagen.“ Seitdem schlossen die beiden eine innige Freundschaft, und Xenophon ward ein Mann, der sich nachmals nicht nur als Schriftsteller und Feldherr, sondern auch durch Tugend und Frömmigkeit bei Mit- und Nachwelt in hohe Achtung setzte.

VII. Parse all the words underlined in the above passages, and resolve the compound words into their component parts.

VIII. “The superlative in German is not, like the positive and comparative used predicatively in its uninflected form; but for this is substituted an adverbial expression.”

Illustrate this by examples.

IX. Give instances of “the subjunctive of indirect statement.”

X. Translate into German prose—

The funeral service was read, in a solemn and impressive manner, by the chaplain of the cemetery. When the

coffin was placed in the little chapel of the burial-ground, a strong desire was manifested by nearly every one to enter the building; but the space inside was soon occupied, as far as it could be conveniently.

After the conclusion of the first part of the service, the mass of those present proceeded to the grave, which is in a quiet spot on the left side of the cemetery, and not far from the entrance-gate.

The numbers present amounted to nearly a thousand. The scene at the grave, both during and after the ceremony of interment, was extremely affecting. The silence was profound, and every countenance bespoke a deep sense of grief.

CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

- I. The air dissolved in water differs in composition from ordinary atmospheric air. In what does the difference consist, and what is its cause?
- II. Bromine is brought into contact with phosphorus under water, what is the result? Write an equation to represent the action.
- III. Ordinary phosphorus is heated to 250° C in closed vessels. Describe fully the properties of the substance produced. How can phosphorus be obtained in the crystalline condition?
- IV. How is "superphosphate of lime" prepared?
- V. How is pure silica prepared?
- VI. Describe how you would prepare a specimen of crystallized potassium chlorate.
- VII. What is "Condy's fluid"? How is it manufactured, and how does it act as a disinfectant?
- VIII. Given a specimen of silver chloride how would you obtain silver from it?
- IX. How would you ascertain the genuineness of a gold nugget?

ELEMENTARY PHYSICS.

R. W. CHAPMAN, B.A., B.C.E.

University
Scholarship
Examination
March, 1888.

Time—Three hours.

- I. State and prove a formula for finding the distance through which a body has fallen under gravity in a given time.

Find the numerical expression for the value of gravity, taking the yard and hour as units of length and time, assuming $g=32.12$ (in the ft. sec. system of units).

- II. Give a sketch with explanation of a system of pulleys by which a man would be able to raise 8 times the weight he could without the aid of mechanism.

- III. Describe and explain the use of Atwood's machine.

A weight of 16 lbs. is hung at the end of a string passing over a pulley, and at the other end of the string is hung a weight of 24 lbs. What will be the velocity of the descending weight at the end of one second.

- IV. Explain the difference between a wave of sound and a wave of light.

- V. A copper wire stretched with a weight of 200 lbs. when set in vibration sounds its fundamental note C . What must be the length of another copper wire 3 times its diameter and, stretched with a force of 500 lbs. and which also gives C as its fundamental note.

- VI. Explain the theory of freezing mixtures.

The specific heat of mercury is .033 ; 12 kilogrammes of mercury at $70^{\circ} C$ are mixed with 7 kilogrammes of ice cold water. Find the temperature of the mixture.

- VII. What is the special advantage of the air thermometer ?

The boiler of a steam engine is at a temperature of $120^{\circ} C$, and the refrigerator at $2^{\circ} C$. Find the proportion of heat which is capable of being converted into mechanical energy.

- VIII. Describe and give a general explanation of the formation of Newton's Rings.

- IX. Describe Coulomb's Torsion Balance and explain how it is applied to prove the law of electrical force.

What is the force of attraction between two magnetic poles placed at a distance of 5 centimetres apart, the positive pole having a strength of 10 units and the negative of 25 units.

- X. Give Ampère's Laws for the action of electrical currents upon one another.

A coil of copper wire 40 yards long was found to have a resistance of 4 ohms ; another coil of copper wire 60 yards long had a resistance of 5 ohms. Compare the diameters of the wires.

BOTANY AND PHYSIOLOGY.

Time—Three hours.

SECTION I.—BOTANY.

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

- I. What characters distinguish the class of plants to which the gum-tree belongs from that to which the lily belongs ?
- II. Into what sub-classes is the former divided ; state the characters of each, and refer the plants given you for study to their respective sub-classes.
- III. What are the striking features of a *cruciferous* flower, a *papilionaceous* flower, a *composite* flower, and a *gramina-ceous* flower.
- IV. What is meant by *self*, and by *cross-fertilisation* ?
- V. Describe the structures and give illustrative examples :—
1. *achene* ; 2. *capsule* ; 3. *legume* ; 4. *pollinia* ; 5. *phyllode*.

SECTION II.—PHYSIOLOGY.

E. C. STIRLING, M.A., M.D.

- I. Describe the action of the bony and muscular mechanisms of Respiration.
- II. What work is performed by the kidneys ? What do you know of the principal constituents of the urine.

III. Write an account of the skin as a regulator of the bodily warmth.

IV. Compare and contrast gastric and pancreatic digestion.

V. Write a description of the spinal cord and of its functions.

(Note.—Candidates are not expected to answer more than four of the questions in Physiology.)

University
Scholarship
Examination,
March, 1888.

PHYSICAL GEOGRAPHY AND GEOLOGY.

The paper on Physical Geography for the University Scholarships was the same as that set for the Special Senior Public Examination in March, 1888, *vide* page 42.

MARCH, 1888.

JOHN HOWARD CLARK SCHOLARSHIP.

MILTON'S MINOR POEMS.

PROFESSOR BOULGER, M.A., D.LIT.

Time—Three hours.

I. Refer the following quotations to their context—

- (a) To scorn delights and live laborious days.
- (b) So bucksom, blith, and debonair.
- (c) And storied windows richly dight,
Casting a dim religious light.
- (d) The cynosure of neighbouring eyes.
- (e) To-morrow to fresh woods and pastures new.
- (f) They also serve who only stand and wait.

II. Write notes on the following words and phrases.

Rebecks — junkets — lubbar — ycleaped — star-y-pointing —
darkest grain — vertuous ring — sceptr'd pall — minute drops
— the studious cloister's pale — pillar's massy proof —
scrannel pipes — rathe primrose ;

and explain the allusions in the following—

- (i.) That dishonest victory
At Chaeronea, fatal to liberty,
Kill'd with report that old man eloquent.
- (ii.) Where the great vision of the guarded mount
Looks toward Namancos and Bayona's hold.
- (iii.) That two-handed engine at the door
Stands ready to smite once, and smite no more.
- (iv.) The Lybic Hammon shrinks his horn :
In vain the Tyrian maids their wounded Thamuz
[mourn.

- (v.) He feels from Juda's land
The dreaded infant's hand.
- (vi.) The story of Cambuscan bold.
- (vii.) The great Emathian conqueror bid spare
The house of Pindarus, when temple and bower
Went to the ground, and the repeated air
Of sad Electra's poet had the power
To save the Athenian walls from ruin bare.
- (viii.) The pilot of the Galilaeen lake.
- (ix.) Comes the blind Fury with the abhorred shears
And slits the thin-spun life.
- III. Explain the structure of the sonnet, and quote or reproduce the substance of Milton's sonnet beginning—
Avenge, O Lord! Thy slaughtered saints.
- IV. State what you know about the following works of Milton—
Tetrachordon, Areopagitica, Iconoclastes, Defensio Populi.
- V. Enumerate the "faults and defects," according to Dr. Johnson, of *Comus, Lycidas, and Paradise Lost.*

COWLEY'S ESSAYS.

**SIR T. BROWNE'S RELIGIO MEDICI, AND URN
BURIAL.**

HERRICK. JOHNSON'S LIVES OF THE POETS.

PROFESSOR BOULGER, M.A.. D.LIT.

Time—Three hours.

- I. Contrast Herrick as a lyric poet with any of his contemporaries.
- II. Quote from Herrick any passages which illustrate his intense enjoyment of rustic life.
- III. What, according to Dr. Johnson, is Denham's principal claim to the regard of posterity? Quote, with Johnson's criticism, the four celebrated lines from *Cooper's Hill* beginning—
"O, could I flow like thee," &c.

John Howard
Clark Scholarship,
March, 1898.

- IV. Describe the character of *Hudibras*, and state to whom Butler is indebted for the plan of the work.
- V. Give some account of "the race of writers that may be termed the metaphysical poets," and quote passages illustrative of their peculiar style.
- VI. Reproduce as faithfully as you can Sir Thomas Browne's remarks concerning — *Miracles, spirits, witches, suicide, resurrection*.
- VII. Quote any sentences from Sir Thomas Browne noticeable for majesty of diction and harmony of rhythm.
- VIII. Explain the meaning of the following words, as used by Browne—
Vespilloes, incrassated, ferity, impropereations, expilators ;
and give additional examples of his "hyperlatinisms."
- IX. Explain the allusions in the following phrases—
1. We need not look for Plato's year.
 2. Every man's reason is his best Oedipus.
 3. The honest artifice of Seneca.
 4. Aeson's bath.
 5. Actius's razor.
 6. That handsome distinction of Demas and Soma.
 7. Afflictions induce callosities.
 8. The metropolis of humidity.
 9. Spirits have no ephemerides.
 10. Enoch's pillars.
- X. What illustrations does Cowley give of the slavery of greatness? What, according to Cowley, must a man do "to make himself capable of the good of solitude?" Epitomise Cowley's Discourse concerning the Government of Oliver Cromwell.
-

NOVEMBER, 1888.

ORDINARY EXAMINATION FOR THE DEGREE
OF LL.B.

FIRST YEAR.

ROMAN LAW.

MR. F. W. PENNEFATHER, LL.M., B.A., and MR. A. GILL, LL.B., B.A.

Time—Three hours.

Ordinary Exam.,
LL.B.
First Year,
November, 1888.

(No candidate will be allowed to pass in Roman Law who does not show a competent knowledge of Latin.)

I. Explain the following terms:—

Jus civile, Latini Juniani, Agnati, Accessio, Tempus utile, Actio utilis, Actio noxalis, Bonorum venditio, Cautio.

II. Translate and explain fully—

Mulieres, quamvis in manu sint, nisi coemptionem fecerint, potestate parentis non liberantur. Hoc in Flaminica Diali senatusconsulto confirmatur, quo ex auctoritate consulum Maximi et Tuberonis cavetur, ut hæc quod ad sacra tantum videatur in manu esse, quod vero ad cetera perinde habeatur, atque si in manum non convenisset. Sed mulieres quæ in manum conveniunt per coemptionem a potestate parentis liberantur; nec interest, an in viri sui manu sint, an extranei; quamvis hæc solæ loco filiarum habeantur quæ in viri manu sunt.

—G. I. 136.

III. Explain the expressions—Imperfectum, Nullius momenti, Ruptum, Irritum, and Destitutum, as applied to a Testament.

IV. Classify contracts.

Ordinary Exam.,
LL.B.
First Year.
November, 1888.

V. Write short notes on the following passages :—

Quod in filio faciunt tres mancipationes, hoc facit una mancipatio in nepote.

—G. I. 135.

Neque autem bonorum possessorum, neque bonorum emptorum res pleno jure fiunt, sed in bonis efficiuntur.

—G. III. 80.

Erat et ex senatusconsulto Claudiano miserabilis per universitatum adquisitio.

—J. III., XII. 1.

Quædam actiones rei persequendæ gratia comparatæ sunt, quædam pænæ persequendæ, quædam mixtæ sunt.

—J. IV., VI. 16.

Capite secundo [legis Aquiliæ] in adstipulatorem qui pecuniam in fraudem stipulatoris acceptam fecerit, quanti ea res est, tanti actio constituitur.

—G. III. 215.

Ceterum dubium non est, quin is quoque, qui jussu domini contraxerit cuique institoria vel exercitoria actio competit, de peculio deque eo, quod in rem domini versum est, agere possit.

—J. IV., VII. 5.

VI. Mention some of the principal provisions of the *Lex Julia et Papia Poppæa*.

VII. Translate, with notes—

Sed quia heredes scripti, cum aut totam hereditatem aut paene totam plerumque restituere rogabantur, adire hereditatem ob nullum vel minimum lucrum recusabant atque ob id extinguebantur fideicommissa; postea Vespasiani Augusti temporibus Pegaso et Pusione consulibus senatus censuit, ut ei, qui rogatus esset hereditatem restituere perinde liceret quartam partem retinere, atque lege Falcidia ex legatis retinere conceditur. Ex singulis quoque rebus quæ per fideicommissum relinquuntur, eadem retentio permissa est. Post quod senatusconsultum ipse heres onera hereditaria sustinebat; ille autem, qui ex fideicommisso recepit partem hereditatis, legatarii partiarrii loco erat, id est ejus legatarii, cui pars bonorum legabatur. Quæ species legati partitio vocabatur, quia cum herede legatarius partiebatur hereditatem.

—J. II., XXIII. 5.

- VIII. Explain the actions, "per manus injectionem," and "per pignoris capionem."
- IX. Illustrate the maxim, "Nulli res sua servit," and state the leading principles of Roman Law applicable to prædial servitudes.
- X. By what means could tutors be appointed? Name the cases in which they were required to give security.
- XI. What kind of Partnership did Roman Law distinguish? How could the obligation of partnership be determined?
- XII. Define the term "Peculium." Distinguish—Peculium adventitium, Peculium castrense, Peculium profectitium, Peculium quasi-castrense.

Ordinary Exam.,
LL.B.
First Year.
November, 1888.

LAW OF PROPERTY.

MR. F. W. PENNEFATHER, LL.M., B.A., and MR. T. B. GALL.

Time—Three hours.

[*You are required to give reasons where your answers involve matters of opinion.*]

- I. *A*, domiciled in South Australia, dies there intestate, possessed of real estate in England and South Australia, leaving a widow, two sons, and a daughter surviving him. What are the rights of the widow and children in the property?
- II. Explain Patent and Copyright, and state shortly how and under what circumstances Letters Patent may be obtained in South Australia, and how same may be assigned.
- III. *A* mortgages his land under the Real Property Act to *B*; he then gives a second mortgage to *C*, both mortgages being registered in order of date. Subsequently *A*, being unable to pay principal or interest, agrees to transfer the land to *B*, who takes a transfer in the form prescribed by the Real Property Act, and registers it. How is *C*'s position affected?
- IV. Under what circumstances will a voluntary post-nuptial settlement be upheld against the assignees of the husband, who is subsequently adjudicated insolvent?

Ordinary Exam.
L.L.B.
First Year.
November, 1888.

- V. Explain fully how and under what circumstances *foreclosure* may be effected in South Australia—
- (a) As regards a mortgage of land under the old system.
- (b) As regards land under the Real Property Act.
- VI. *A*, *B*, and *C* are indebted to *D* upon a joint and several guarantee. *D* sues *C*, and obtains judgment against him for the full amount of the debt. *A* and *B* then pay *D* the amount due, and claim to have the judgment against *C* assigned to them. Are they entitled to this? Give the reasons for your answer, and refer to the authorities, if any.
- VII. Explain a writ of *Elegit*, and state how same may be enforced, and whether it is available in South Australia.
- VIII. State shortly the principal provisions of the Property Act, No. 6, of 1860.
- IX. *A* executes a lease of land to *B*, his executors, administrators, and assigns, for a term of years at a rental, and subject to covenants in and by the lease reserved and contained. *B* assigns the lease to *C*, who occupies the land for some years, paying the rent, but allowing the buildings and fences to get into disrepair, contrary to the covenant in that behalf in the lease. *C* then assigns the lease to *D*. What are the rights and liabilities of *A*, *B*, *C*, and *D* respectively?
- X. *A*, at Broken Hill, orders 20 cases of whisky from *B* in Adelaide, to be forwarded per rail to Broken Hill. The whisky is forwarded in due course, but is detained at the Cockburn Railway Station owing to pressure of work on the Silverton Tramway preventing its being sent on at once. Meantime, *A* is adjudicated insolvent, and *B*'s traveller seeing the whisky at Cockburn takes possession of it on *B*'s behalf. The assignee under *A*'s insolvency hearing of this demands the whisky and commences an action against *B* for its recovery or value. Is he entitled to succeed? Give the reasons for your answer, and state if it would have been different had the whisky been taken as far as Broken Hill Railway Station, and there seized by the traveller.

LAW OF PROPERTY.

MR. F. W. PENNEFATHER, LL.M., B.A., and MR. T. B. GALL.

Ordinary Exam.,
LL.B.
First Year.
November, 1888.

Time—Three hours.

[*You are required to give reasons where your answers involve matters of opinion.*]

- I. Explain the following terms:—Emblements, Foreclosure, Shifting Use, Special Occupant, Bill of Exchange, Caveat Chose in Action, Hotchpot.
 - II. Give an account of the Feudal System in England, explaining its origin and decay.
 - III. Enumerate and state the effect of the principal Statutes concerning Real Property passed in the times Edward III., Henry VIII., and Charles II.
 - IV. State fully the alterations which have taken place in England and in South Australia with reference to the succession to Real Property during the present century.
 - V. What provisions are contained in the Real Property Act for the protection of a cestui que trust?
 - VI. Illustrate the maxim “Mere naked possession is good against a wrongdoer.”
 - VII. Explain the law as to the formation and winding-up of companies.
 - VIII. What are the incidents in Joint Tenancy, and Tenancy in Common, respectively?
 - IX. Explain the meaning and effect of “Acts of Insolvency,” and give examples.
 - X. What covenants and powers are implied in a Bill of Sale?
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SECOND YEAR LL.B.

JURISPRUDENCE.

MR. F. W. PENNEFATHER, LL.M., B.A., AND MR. T. HEWITSON, LL.B.

Time—Three hours.

- I. Define *Law*, and explain fully the various senses in which the term is used.
- II. What does Austin consider to have been the origin of the division of wrongs into *mala prohibita* and *mala in se*?
- III. Explain the theory of the fundamental civil pact, and Austin's arguments against it.
- IV. What is the meaning of the following terms? *Jus personarum, jus in personam, thing, status, limited monarchy.*
- V. "Apart from the existence of a State, and of a Sovereign power within it, there can be no law." What objections have been made to this remark?
- VI. Draw a parallel between the legal history of India, Rome, and England.
- VII. What is the province respectively of (1) The Science of Legislation; (2) the Science of Jurisprudence?
- VIII. Will a bare "intention" constitute an "injury"? Can there be an "injury" without "intention"? Discuss each question.
- IX. Mention some of the defects of what Bentham calls Judge-made law. Would codification in your opinion remedy them to any, and what extent?
- X. Classify as rights *in rem* or *in personam* the respective rights (if any) of which the following are violations: Libel, suicide, breach of contract of hiring and service, smuggling.
- XI. Blackstone says: "No human laws are of any validity if contrary to the will of the Creator which is called the law of nature and such of them as are valid, derive all authority mediately or immediately from this original." Examine this statement.
- XII. Did any of the incidents of Sovereignty attach to the *Patria potestas* of primitive society?

CONSTITUTIONAL LAW.

MR. F. W. PENNEFATHER, LL.M., B.A., AND MR. T. HEWITSON,
LL.B.

Ordinary Exam.
LL.B.
Second Year.
November, 1888.

Time—Three hours.

- I. Trace the historical connection between the Assembly described in the Germania of Tacitus and the British Parliament.
- II. Why is the reign of Richard II. of special interest with reference to the Constitutional History of England?
- III. Write a short note on the offence called "Præmunire."
- IV. Explain fully the history of the doctrine of *non obstante*.
- V. Classify colonies, explaining the laws which are in force in them, and the means of legislation.
- VI. Mention some of the constitutional questions which have arisen in connection with the refusal by the Government of New South Wales to allow the Chinese to land at Sydney in the present year.
- VII. Are the following English Statutes, or any of them, in force in this colony?—Statute of Mortmain, Statute of Frauds, Statutes dealing with Aliens? Give reasons and authorities for your answers.
- VIII. By whom are the following appointments made in South Australia, and by whom and under what conditions can the same be determined?
 1. Judges of the Supreme Court.
 2. Members of Executive Council.
 3. Heads of Civil Service departments.
- IX. In what respect did the Habeas Corpus Act (31, Car. II. c. 2) remedy the Common Law? Will the writ lie to bring up an alien enemy taken prisoner of war?
- X. What are the principal provisions of the Parliamentary Privileges Act, No. 14 of 1872? Is our local legislation on this matter declaratory or remedial?
- XI. (1) How far, in your opinion, is the Governor of a colony protected against liability for a mistake made by him when acting within the limits of his authority?
(2) Is it within the province of a Colonial Court to determine whether any particular act of the Governor is within the limits of his authority and therefore an act of State?
- XII. What are the constitutional powers of the Governor with respect to dissolving either or both houses of parliament?

THE LAW OF CONTRACTS.

Ordinary Exam.
LL.B.
Second Year.
November, 1888.

MR. F. W. PENNEFATHER, LL.M., B.A., and MR. E. PARISS NESBIT.

(*You are required to give reasons when your answers involve matters of opinion.*)

- I. Explain the law of South Australia with reference to the contracts of infants. Does it differ in any respect from that of England?
- II. Classify agreements which are unlawful and void.
- III. Distinguish between *mistake*, *misrepresentation*, and *fraud*, giving illustrations.
- IV. Explain the doctrine of "making representations good," stating how far, in your opinion, such a doctrine can be said to exist.
- V. What are the rules as to contracts, the performance of which depends on the life or health of a person?
- VI. State fully the maxims of equity with reference to contracts between persons between whom a confidential relation exists.
- VII. State the law generally with regard to assignments of choses in action. Distinguish between a novation and an assignment of a chose in action.
- VIII. What are the rights of a promisee where the promisor, before the time appointed for performing the contract, announces his intention not to perform it? Name cases on this subject.
- IX. What is the effect of duress, (*a*) of the person, and (*b*) of goods (1) with regard to an agreement made, and (2) with regard to money paid thereunder respectively?
- X. State the provisions of the 4th section of the Statute of Frauds, and, generally, what must be contained in a note or memorandum in order to satisfy the section.
- XI. Where a debtor, owing several distinct sums to a creditor, makes a payment to the latter, what are the rights of appropriation by the parties respectively? If neither of them makes an appropriation, how does the law appropriate the payment?
- XII. What are the rights of a surety, who has paid the debt, with regard to the remedies and securities of the creditor against the principal debtor? Is there any, and what, statutory provision on this subject?

PUBLIC AND PRIVATE INTERNATIONAL LAW.

MR. F. W. PENNEFATHER, LL.M., B.A., and MR. R. G. MOORE.

Time—Three hours.

- I. Explain the following terms :—
International Law, Person, The King's Chambers, Domicile of Origin, Lex rei, Lex loci solutionis, Personal statutes.
- II. Explain, with short notes, the objects of Public International Law.
- III. What are the principles of International Law with reference to the open sea, narrow seas, bays, and rivers which flow through more than one State? Give illustrations.
- IV. Explain and illustrate the doctrine of interference in order to maintain the Balance of Power.
- V. What is the history, and the present state of the law of England with reference to children legitimated by the subsequent marriage of their parents? Quote authorities.
- VI. A., in South Australia, draws a bill on B. in the Mauritius. It is accepted by B. An indorsement is made on the Bill in South Australia which, though it would be good by the law of Mauritius, is insufficient by the law of South Australia. The indorsee sues B. Is B. liable? Discuss the question fully, giving reasons for your answer.
- VII. Give an account of the case of the *Trent*.
- VIII. What is the Monroe Doctrine!
- IX. Give an account of the rights and liabilities of ambassadors and other public ministers—distinguishing the various classes.
- X. What is the effect, on the cession of conquered territory by a treaty of peace, on the Municipal laws of such territory.
- XI. What are the essentials requisite to a change of domicile?
- XII. On what principle does the mode of proving foreign laws depend? Give the English rule on this subject.

THE LAW OF WRONGS.

Ordinary Exam.,
LL.B.
Third Year.
November, 1888.

MR. F. W. PENNEFATHER, LL.M., B.A., AND MR. E. B. GRUNDY.

Time—Three hours.

(You are required to give reasons where your answers involve matters of opinion.)

- I. Define—*Act of State, Assault, Attempt, Conspiracy, Independent Contractor, tort.*
- II. Explain the maxim “*Actio personalis moritur cum persona,*” and the exceptions thereto.
- III. A man in his sleep walks into a china-shop and breaks a jar. Is he liable; and if so, how?
- IV. What is the present state of the law as to trespass being merged in a felony?
- V. Define Larceny, and show how the crime has been altered by statute in modern times.
- VI. Write a short account of the history of the Law of Treason.
- VII. Classify Torts under the following headings:—
 - (a) Personal wrongs.
 - (b) Wrongs to Property.
 - (c) Wrongs to Person, Estate, and Property generally.

As to *b*, explain and illustrate the following passage?—
“Whatever may or might be the case in other systems, the intention to violate another’s right, or even the knowledge that one is violating them, is not in English Law necessary to constitute the wrong of trespass as regards either land or goods, or of conversion as regards goods.”

- VIII. Define—(1) Libel and (2) Slander. State the evidence necessary to support an action for (1) and (2), and give instances of unqualified and qualified privilege.
- IX. Enumerate the kinds of nuisances affecting—
 - (a) Ownership.
 - (b) *Jura in re aliena.*
 - (c) Convenience and enjoyment.

State what is necessary to constitute (1) a public and (2) a private nuisance, and the remedies for each.
- X. What are the necessary ingredients of a false pretence on which to ground a criminal charge?

- XI. Define Murder and Manslaughter; and state under what circumstances Homicide is (1) excusable and (2) justifiable.
- XII. Define—"Accessory before the fact," "Accessory after the fact"; and explain the doctrine of a "Common Criminal Purpose." Give illustrations.

THE LAW OF EVIDENCE AND PROCEDURE.

MR. F. W. PENNEFATHER, LL.M., B.A., AND MR. E. B. GRUNDY.

Time—Three hours.

[You are required to give reasons where your answers involve matters of opinion.]

- I. Define and explain *circumstantial evidence, fiction of law, res inter alios acta, injunction, equitable execution.*
- II. State the cases in which evidence may be given without oath, and the value to be attached thereto.
- III. What are the exceptions to the rule that parol evidence is inadmissible to contradict, vary, or explain written documents?
- IV. What provisions are contained in the Rules of the Supreme Court as to proceeding by and against Firms?
- V. In what cases will Amendment of Pleadings be (a) allowed; and (b) ordered by the Court?
- VI. In what respect (if any) have the rules of evidence been altered by the Married Women's Property Act, 1883?
- VII. If one of several persons, who are joint contractors, is sued in the Supreme Court has he a right to have his co-contractors joined as defendants? If so, when, and by what means?
- VIII. State the procedure to attach a debt due to a judgment debtor, and to charge stock and shares standing in his name in his own right or in the name of any person in trust for him.
- IX. Distinguish between the Jurisdiction of a Local Court of Limited, and a Local Court of Full, Jurisdiction; and state how and in what particulars the Jurisdiction of the Local Court has been extended by the Act of 1886.

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- X. Explain the difference between *primary* and *secondary* evidence and state the circumstances under which secondary evidence may be given of the contents of a written instrument.
- XI. What are the provisions of the Rules of the Supreme Court, 1878, as to obtaining discovery and inspection? and how and subject to what restrictions (if any) can the answers of the opposite party to interrogatories be used in evidence on the trial?
- XII. When (if ever) can a party discredit his own witness? Assuming that, under certain circumstances, he can, explain the method of doing so.
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NOVEMBER, 1888.

ORDINARY EXAMINATION FOR THE DEGREE
OF M.B.

FIRST YEAR.

ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Three hours.

Ordinary Exam.,
M.B.
First Year.
November, 1888.

- I. Describe the lower jaw.
 - II. Compare the upper half of the humerus with the corresponding portion of the femur.
 - III. In what manner are the vertebræ connected with each other, and with the ribs.
 - IV. Write a description of the bony tarsus and tarsal ligaments.
 - V. Enumerate in their relative positions the muscle of the flexor aspect of the fore-arm.
 - VI. What structures are necessarily exposed by removing the Pectoralis Major and Deltoid muscles respectively.
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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.

Ordinary Exam.
M.B.
First Year.
November, 1888.

ELEMENTARY BIOLOGY AND PHYSIOLOGY.

PROFESSOR RALPH TATE, F.G.S., F.L.S., AND E. C. STIRLING,
M.A., M.D.

Time—Three hours.

- I. Describe the constituent parts of "a broad bean" at the commencement of germination.
- II. Write an account of the structure of the Bell-animalcule (*Vorticella*), and contrast its organization with that of *Amœba* and *Hydra*.
- III. Describe, with diagrams, the heart of a frog, with its vascular connections.
- IV. Draw a diagram showing the relation of the structures cut through in a *transverse* section of a frog at the level of the testes.
Compare such a section with a transverse section through the abdomen of a crayfish.
- V. Discuss the question of the association of living organisms with the processes known as fermentation and putrefaction.
- VI. What do you understand by the term "alternation of generations"? State examples of the occurrence.

PRACTICAL BIOLOGY.

E. C. STIRLING, M.A., M.D.

Time—Three hours.

- I. Identify the specimens a, b, c, &c.
- II. What are the materials, 1, 2, 3? Describe their structure with diagrammatic sketches.
- III. Prepare specimens showing stomata (in plant); nerve fibres in the fresh state; human blood. Leave your specimens for inspection.
- IV. Display as plainly and neatly as you can the muscular system of the fresh-water mussel.

INORGANIC CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

Ordinary Exam.
M. B.
First Year.
November, 1888

[*N.B.*—Candidates are expected to write formulæ and equations wherever possible.]

- I. A mixture of air and hydrochloric acid is passed over heated fragments of brick which have been soaked in a solution of cupric sulphate. The gases produced are passed into a hot solution of caustic potash. What are the products, their principal properties, and uses?
- II. Barium oxide (BaO) is moderately heated in a current of oxygen and the product is treated with dilute sulphuric acid. Write an account of the substances which are formed, and of their properties and uses.
- III. How would you prepare sodium sulphite? A solution of this substance is boiled with sulphur; what compound is formed, what is its relation to sodium sulphate, how can you distinguish it from sodium sulphite, and what are some of its uses?
- IV. Mercuric cyanide is heated, (*a*) alone, (*b*) in a current of sulphuretted hydrogen gas. Write a short account of the properties of *each* of the substances formed.
- V. Describe briefly the preparation on the large scale of the following substances, and mention any of their uses:—Ferrous sulphate, zinc oxide, potassium permanganate, white lead.
- VI. Given *metallic* arsenic, how would you prepare the substance popularly known as arsenic, and how would you convert the latter into arsenic acid. How would you distinguish between solutions of an arsenite and an arsenate, and the latter from a solution of an orthophosphate?
- VII. A mixture of sulphuric acid, potassium bichromate, and alcohol is heated and the liquid finally evaporated till it begins to crystallize. What compound crystallizes out, what is its crystalline form, and how do you explain its formation? Name some other compounds of the same class, giving formulæ.
- VIII. Describe and explain the phenomena attending upon the electrolysis of (*a*) fused sodium chloride (*b*) a solution of sodium chloride (*c*) a solution of cupric sulphate.

PRACTICAL CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

Four substances containing not more than one inorganic base and one inorganic acid were given to each student for qualitative analysis.

MORPHOLOGICAL AND SYSTEMATIC BOTANY I.

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

Time—Three hours.

- I. Describe the peculiarities of the andræcium in *Malva*, *Salvia*, *Grevillea*, of an orchid.
- II. Describe the seed in respect to relationship of its constituent parts as exhibited by that of the bean, a caryophyllaceous plant (*Lychnis*), and *Pinus*.
- III. Mention, with examples, the different structures of the plant which may be modified into tendrils.
- IV. Tabulate the principal kinds of indefinite inflorescence.
- V. Illustrate by examples the chief forms which are assumed by underground stems.
- VI. To what Orders do the undermentioned plants belong, and note some of their properties or uses :—Deadly Nightshade, Almond, Mustard, Cotton, Indigo, Potato, Mallee, Wattle, Tomato, and Maize.
- VII. What are bracts? Give some of their modifications.
- VIII. Draw up a Synopsis of the characters of the classes and chief subdivisions into which all plants are arranged.

MORPHOLOGICAL AND SYSTEMATIC BOTANY II.

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

Time—Three hours.

- I. To what Order does the Carrot belong? Describe the chief botanical characters and chief properties of the Order.

- II. Compare and contrast the flower of a Buttercup, Rose, and Cherry. Give diagrammatic illustrations.
- III. Refer to their Natural Orders the plants (1-12).
- IV. Make a vertical section through the inflorescence of an Aster, and give an exact account of each kind of flowers.
- V. Identify and describe the objects (1-5).
- VI. Describe the characters of the Order Leguminosae, and of its Sub-orders.
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Ordinary Exam.
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November, 1888

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.

SECOND YEAR M.B.

ANATOMY.

PROFESSOR ANDERSON-STUART, M.D., AND PROFESSOR WATSON,
M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. Describe the bony pelvis.
 - II. Describe the arrangement of the synovial membranes found in connection with the flexor tendons in the palm of the hand.
 - III. Compare and contrast the bones of the metatarsus with those of the metacarpus.
 - IV. The Spinal Accessory Nerve—Give an account of it from its origin in the spinal cord to its periphery.
 - V. Describe the dissection necessary to expose the whole anterior surface of the Trachea above the Sternum. Name all the structures exposed in the operation, and give the exact origin and insertion of each of the muscles seen.
 - VI. Describe the Circle of Willis, and give briefly the course of the great arteries which open into the Circle.
-

COMPARATIVE ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Two hours.

- I. Describe the leading features in the development of the vertebrate skeleton.
- II. Compare and contrast the heart and great vessels of mammals with those of reptiles and fishes.
- III. Discuss the various kinds of masticatory apparatus met with in mammals.
- IV. Trace the origin and development of the genital apparatus in the human female and in the kangaroo.

PHYSIOLOGY.

PROFESSOR ANDERSON STUART, M.D., AND E. C. STIRLING, M.A.,
M.D., F.R.C.S. (Eng.).

Ordinary Exam.
M.B.
Second Year.
November, 1888.

Time—Three hours.

- I. The coloured blood corpuscles of man—describe their structure, chemical composition, and functions.
- II. The spinal cord is completely severed transversely in the middle of the back ; what is the effect of this upon the operations of the genito-urinary apparatus ?
- III. Write an account of the acts of swallowing and of vomiting from the stand-point of the physiologist.
- IV. Describe and explain the effects of the respiratory movements on the circulation of the blood.
- V. What part does gelatine play in nitrogenous metabolism ?
- VI. Discuss the various causes which may lead to alteration of the calibre of arteries.

PRACTICAL PHYSIOLOGY.

E. C. STIRLING, M.A., M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. Identify the specimens A, B, C, &c., and write a short description of X, Y, Z, with low and high power sketches of characteristic parts.
- II. What are the materials 1, 2, 3 ? Leave your specimens for inspection.
- III. Make ready all the necessary apparatus for the experiment assigned to you.
- IV. Investigate the nature of the stains on the material M.

ORGANIC CHEMISTRY.

PROFESSOR MASSON, M.A., D.Sc., AND PROFESSOR
RENNIE, M.A., D.Sc.

Time—Three hours.

- I. Give a brief account of the manufacture of alcohol. Explain the relation of this substance to (a) ethane, (b) acetic acid.

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- II. What is the constitution of chloral? How does it react with (a) water, (b) an alkali?
- III. Trimethylamine and methyl iodide are mixed in molecular proportions. After some time water is added, and the solution so obtained is shaken with excess of moist silver oxide and filtered. Of what does the filtrate consist? And what are its characteristics?
- IV. What are the chief reactions involved in the manufacture of ordinary soap? What do you understand by the term *saponification* in its wider sense?
- V. What changes do the following substances undergo when heated?—(a) calcium oxalate, (b) a mixture of calcium benzoate and calcium hydroxide, (c) citric acid.
- VI. What is *Fehling's solution*? Explain its use for the estimation of glucose. What preliminary change must be brought about (and how?) if it be desired to estimate cane-sugar by this reagent?
- VII. Explain by words and by means of constitutional formulæ the relation of the following compounds to one another:—glycolic acid, glyccoll, sarcosine, creatine.
- VIII. How many di-hydroxyl-benzenes exist? Name them, and give formulæ to show their relations to one another and to benzene.
- IX. What is salicylic acid? How may it be prepared (a) from oil of wintergreen, (b) from phenol?

PRACTICAL CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Four hours.

Each student was given some porter containing one poisonous substance, either *arsenious acid*, *tartar emetic*, *corrosive sublimate*, *morphia*, or *strychnine*. In the case of the first three substances the metal only to be detected, and identified.

In addition to this each student had *one* of the following mixtures to analyse qualitatively:—

1. Tartar Emetic and cupric oxide.
2. Sulphate of quinine and ferric chloride.
3. Potassium phosphate and strychnine.
4. Mercuric chloride and zinc sulphate.
5. Strychnine and sodium acetate.

MATERIA MEDICA.

W. L. CLELAND, M.B.

Time—Three hours.

Ordinary Exam.,
M.B.,
Second Year,
November, 1888.

- I. What are the leaves (I)? Give the general and specific names of the plants whence obtained. Of what country are they indigenous? What are the officinal preparations and the general physiological action?
- II. What is the exudation (II.)? What is it considered to be, and what is the botanical name of the plant? What is the officinal use of this drug?
- III. What are the roots (III.)? Give the name of the plant and its geographical habitat. What is the active principle? What is its physiological action, and in what relation does this stand to that of saponin and emetine?
- IV. What is the tincture (IV.)? What is its common name? What are the principal alkaloids contained in it? State briefly the physiological action on (a) glandular secretions; (b) the intestinal canal in small and large doses; (c) the cerebral circulation; (d) the functions of the cerebrum and spinal cord; (e) sensibility to painful impressions.
- V. The pieces (V.) are the dried slices of a corm. What is the name of the plant? What other part of the plant is officinal? What is the active principle, and what is its physiological action?
- VI. What are the officinal preparations of lime? What are the physiological actions of this drug?
- VII. What are the symptoms of plumbism? What is the rationale of the treatment by means of potassium iodide and magnesium sulphate? How do you account for opium acting as an aperient in the obstinate constipation sometimes accompanying lead-poisoning?
- VIII. What are the officinal preparations of metallic mercury? Through what channels may these become absorbed into the system? What is the test that these preparations have been properly prepared?
- IX. What are the officinal preparations of phosphorus, and the amount of active ingredient in each? What is its general physiological action on (a) glandular structures; (b) bone; (c) alimentary canal?

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- X. Name three important officinal members of the aromatic series of compounds. What are the characteristic physiological actions of this group?
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THIRD YEAR M.B.

Ordinary Exam
M.B.
Third Year.
November, 1888

PRINCIPLES AND PRACTICE OF MEDICINE.

J. D. THOMAS, M.D., F.R.C.S. (Eng.), AND J. C. VERCO, M.D.,
F.R.C.S. (Eng.).

Time—Three hours.

- I. Give the causes, morbid anatomy, symptoms and treatment of granular contracted kidney.
- II. Enumerate the different kinds of enlarged spleen, and show how you would distinguish them from one another.
- III. Describe the tracts of the spinal cord, and give their functions. How would you ascertain the place in the length of the spinal cord at which a transverse lesion existed.

MEDICINE AND GENERAL THERAPEUTICS.

J. D. THOMAS, M.D., F.R.C.S. (Eng.), AND J. C. VERCO, M.D.,
F.R.C.S. (Eng.).

Time—Three hours.

- I. Describe the Causes, Symptoms, and Consequences of Tricuspid Regurgitation.
- II. What forms of Ulceration affect the Larynx; by what characters may the various kinds of Intra-laryngeal Ulcers be distinguished; and what is the treatment suitable to each form?
- III. What drugs possess a special action on the pupil of the eye, and under what conditions is the employment of these drugs indicated?

PRINCIPLES OF SURGERY.

W. GARDNER, M.D., Ch.M., and E. C. STIRLING, M.D.,
F.R.C.S. (Eng.).

Time—Three hours.

- I. Describe the symptoms and treatment of Caries of the Spine in the lower dorsal region.

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- II. Describe the surgical anatomy of Femoral Hernia?
Describe the symptoms of strangulation, and how would you distinguish Femoral from Inguinal Hernia?
 - III. Discuss the treatment of Popliteal Aneurism?
 - IV. What is a nævus? Discuss its treatment in the cheek of a young lady.
 - V. Describe carefully the various forms of club-foot. State briefly the anatomical changes which take place, and describe the treatment you would adopt.
 - VI. Mention the kind of accident which might produce fracture of the base of the skull, and describe the symptoms which indicate such an injury.
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SURGICAL ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Two hours.

- I. Describe the vascular and nervous supply of the hand.
 - II. What are the relations of the uterus? Describe its vascular supply.
 - III. Give an account of the anatomy of the Inguinal Canal; how may it be modified by developmental anomalies?
 - IV. Enumerate the structures divided in exposing the whole of the anterior aspect of the Thyroid Gland.
-

PATHOLOGY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. Point out the essential differences between fatty infiltration and fatty degeneration, and refer both changes to corresponding physiological processes.
- II. Contrast the life history of the connective tissue tumours with those of epithelial origin, and specify the natural tissues in which their fundamental type is found.

- III. Describe the naked eye, and microscopical appearance in the lung, induced by over-inflation and under-inflation respectively.
- IV. Explain the parts played by inflammation and atrophy in kidney disease, resulting from obstruction to the flow of urine (surgical kidney). Describe briefly the principal structural changes met with.
- V. Describe the processes which lead to the permanent occlusion of an artery after ligature.
- VI. Define and explain the following terms :—Atheroma, Hypertrophy, Neoplasm, Heterogeneity, Psammoma, Adenoma.
-

FOURTH YEAR M.B.

PRINCIPLES AND PRACTICE
OF MEDICINE
MEDICINE AND GENERAL
THERAPEUTICS

The same papers as
set for the Third Year.

PRINCIPLES OF SURGERY.

WM. GARDNER, M.D., Ch.M., and E. C. STIRLING, M.D.,
F.R.C.S. (Eng.).

Time—Three hours.

- I. What do you understand by the term "Concussion of the Brain?" How would you treat such a case? What is its ordinary course, and what complications may be feared?
- II. Describe the Anatomy of Spina Bifida in the lumbar region; the method of treatment and the risks involved.
- III. A person presents himself with a fluctuating swelling in Scarpa's Triangle. Discuss the differential diagnosis.
- IV. A cherry-stone enters the air-passages of a child. What are the symptoms? What course of treatment would you recommend?
- V. Relate the symptoms and treatment of Axillary Aneurism. Describe the steps of any operative procedure you may adopt.
- VI. Describe the symptoms and treatment of Caries occurring in the Atlo-Axoid region of the spine.

FORENSIC MEDICINE.

ALFRED LONDON, M.D., M.R.C.S. (Eng.).

Time—Three hours.

[Only four questions to be answered.]

- I. Describe fully the symptoms of poisoning by Prussic Acid—the post-mortem appearances, and the appropriate treatment. Describe the physical properties of the Acid; it,

chemical re-actions; its physiological actions, as illustrated by experiments on animals. What important questions have arisen with respect to this poison in medico-legal cases?

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- II. Describe fully the symptoms, post-mortem appearances, and treatment of Lead Poisoning in its different forms. Mention the various conditions under which it is likely to occur, and the measures which should be taken to prevent its occurrence.
 - III. You are asked to examine some skeletal remains. Describe the circumstances to which your inquiries would be specially directed, and give the principal data upon which your report would be founded, illustrating them by any examples you may remember.
 - IV. At an inquest on the body of a newly-born infant, you are asked whether the child was born alive. Discuss the value of the principal evidence from which you would endeavour to form an opinion.
 - V. Contrast the symptoms and usual pathological appearances met with in the various forms of so-called sudden death.
Describe the appearances you might expect to find in a body after three or four months' submersion in water.
-

FIFTH YEAR M.B.

Ordinary Exam.
M.B.
Fifth Year
November, 1888.

PRINCIPLES AND PRACTICE
OF MEDICINE
MEDICINE AND GENERAL
THERAPEUTICS

} The same papers as set
for the Third and
Fourth Years.

SURGERY.

WM. GARDNER, M.D., Ch.M., and E. C. STIRLING, M.D.,
F.R.C.S., (Eng.).

Time—Three hours.

- I. Popliteal aneurism—Write an account of the changes in the artery giving rise to it, and those in the surrounding tissues caused by it; the rationale of the various methods of treatment and the effects upon the artery of ligature placed above it.
- II. You are called to a patient who a week before had run the prong of a pitchfork into his knee-joint; the limb and the joint are greatly inflamed and the patient in high fever. Describe the pathological changes you would expect to have taken place in and around the joint, and the treatment you would adopt.
- III. What is the usual cause of tetanus? Describe the symptoms and progress of the disease and the modes in which it is fatal. What line of treatment would you adopt?
- IV. Give the signs which indicate the impaction of a foreign body in the Oesophagus, indicating the points at which it is most likely to be arrested. Mention the various circumstances under which Oesophagotomy may be necessary. Describe that operation and the operation which may be necessary if the foreign body has found its way into the stomach.
- V. What are the symptoms which would lead you to diagnose the presence of a calculus in the kidney, and describe the changes it may produce there. What treatment would you adopt in the various stages?

- VI. State carefully the signs which would lead you to diagnose a strangulated Inguinal Hernia, and describe the anatomical differences of each kind. State clearly the treatment you would adopt and discuss the question of the application of an operation for its radical cure.

Ordinary Exam.
M.B.
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SURGICAL ANATOMY.

PROFESSOR WATSON, M.D., F.R.C.S. (Eng.).

Time—Three hours.

- I. Point out the chief characteristics of the several bones forming the base of the skull.
- II. Describe the Hip-joint.
- III. Name in their order the structures divided in amputation of a finger at its metacarpophalangeal joint.
- IV. Describe the course, relations of the brachial artery, and the collateral circulation after its deligation.

OBSTETRICS AND DISEASES OF WOMEN.

E. W. WAY, M.B., M.R.C.S. (Eng.).

Time—Three hours.

1. Describe the foetal circulation of the blood, and indicate the changes that take place in the circulation after the birth of the child.
- II. Define what is meant by Uterine Inertia. State the causes, results, and treatment of that condition.
- III. What are the chief conditions that necessitate the operation of Version. State briefly the various methods of performing the operation.
- IV. Describe the causes, signs and symptoms of rupture of the uterus, and the treatment to be employed.
- V. What is meant by Pelvic Hæmatocele? Distinguish between the various forms; and give the causes, symptoms, physical signs, and treatment.

Ordinary Exam.,
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HYGIENE.

H. T. WHITEELL, M.D.

Time—Three hours.

- I. Give a short account of the origin of hydatids in man, and of the most approved means for preventing their propagation.
 - II. State what you know of the relation between dampness of soil and phthisis.
 - III. Describe fully your method of disinfecting a house and the furniture of a room after a case of infectious disease.
 - IV. Diphtheria breaks out in a country district. During several weeks new cases occur from time to time in different families. The Board of Health require you to report on the causes of the outbreak. How would you conduct your enquiry, and what measures would you adopt to arrest the progress of the disease?
 - V. What is meant by "natural ventilation?" Describe some of the appliances for effecting it.
 - VI. A room is 25 feet long, 20 feet broad, and 12 feet high, and is permanently occupied by six men. How many times per hour must the air of the room be renewed to prevent the carbonic acid exceeding 0.6 per 1000 volumes? Give the figures in your calculation as part of your answer.
 - VII. Give reasons for or against quarantining vessels arriving at Port Adelaide from a port infected with (a) smallpox or (b) Asiatic cholera.
 - VIII. By what methods may water from rivers or creeks be purified for domestic purposes?
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NOVEMBER, 1888.

Sir Thomas Elder's
Prizes in Physiology
1888.

**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.

- I. Arterial blood is driven from the left ventricle throughout the system, and returns to the right auricle as venous blood:—State clearly the nature of the events which have occurred during this transit.
 - II. Draw a diagram showing the relations of the kidneys to the urinary bladder. Comment upon the chief features of the secretion of the kidneys.
 - III. What functions are performed by the liver? Describe them.
 - IV. Write a short account of the lymphatic system, referring particularly to its relations with the circulatory and alimentary systems.
 - V. Describe the spinal cord and its functions. What would be the effect of cutting a spinal nerve?
 - VI. Suppose the eye to be divided into two halves by a vertical cut extending from front to back:—Draw a diagram, showing the relative position of the different structures exposed. What is the function of the Retina? Explain also, with diagrams, the cause of the defects known as long and short sight. How may these be remedied respectively?
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NOVEMBER, 1888.

ORDINARY EXAMINATION FOR THE DEGREE
OF B.A.

FIRST YEAR.

LATIN (Pass Paper).

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

I. Translate—

Quodsi in his rebus repetendis, quae mancipi sunt, is periculum iudicii praestare debet, qui se nexu obligavit, profecto etiam rectius in iudicio consulis designati is potissimum, qui consulem declaravit, auctor beneficii populi Romani defensorque periculi esse debet.

Parse *mancipi*, and give an account of the symbolic sale called *mancipatio*.

II. Translate, with notes where you deem them necessary—

Cum hoc fieri bellissime posset; 'fundus Sabinus meus est'; 'immo meus,' deinde iudicium: noluerunt. fundus, inquit, qui est in agro, qui Sabinus vocatur. satis verbose: cedo, quid postea! eum ego ex iure Quiritium meum esse aio. quid tum? inde ibi ego te ex iure manum consertum voco. quid huic tam loquaciter litigioso responderet ille, unde petebatur, non habebat. transit idem iure consultus, tibincinis Latini modo: unde tu me, inquit, ex iure manum consertum vocasti, inde ibi ego te revoco. praetor interea ne pulchrum se ac beatum putaret atque aliquid ipse sua sponte loqueretur, ei quoque carmen compositum est, cum ceteris rebus absurdum, tum vero in illo: suis utrisque

superstitibus praesentibus istam viam dico; ite viam. praesto aderat sapiens ille, qui inire viam doceret. redite viam; eodem duce redibant. haec iam tum apud illos barbato ridicula, credo, videbantur, homines, cum recte atque in loco constitissent, iuberi abire, ut, unde abissent, eodem statim redirent.

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III. Translate—

Petunt enim rationes illius, ut orbetur auxilio res publica, ut minuat contra suum furorem imperatorum copia, ut maior facultas tribunis plebis detur, depulso adversario, seditionis ac discordiae concitandae. idemne igitur delecti amplissimis ex ordinibus honestissimi atque sapientissimi viri iudicabunt, quod ille importunissimus gladiator, hostis rei publicae iudicaret? mihi credite, iudices, in hac causa non solum de L. Murenæ, verum etiam de vestra salute sententiam feretis. in discrimen extremum venimus: nihil est iam, unde nos reficiamus aut ubi lapsi resistamus.

Give some account of Catiline's conspiracy.

IV. Translate—

Quod superest, ubi pulsam hiemem Sol aureus egit
Sub terras caelumque aestiva luce reclusit,
Illae continuo saltus silvasque peragrant
Purpureosque metunt flores et flumina libant
Summa leves. Hinc nescio qua dulcedine laetae
Progeniem nidosque foveant, hinc arte recentes
Excudunt ceras et mella tenacia fingunt.
Hinc ubi iam emissum caveis ad sidera caeli
Nare per aestatem liquidam suspexeris agmen
Obscuramque trahi vento mirabere nubem,
Contemplator: aquas dulces et frondea semper
Tecta petunt. Huc tu iussos adsperge saporis,
Trita melisphylla et cerinthae ignobile gramen,
Tinnitusque cie et Matris quate cymbala circum!
Ipsae consident medicatis sedibus, ipsae
Intima more suo sese in cunabula condent.

V. Translate—

Iamque pedem referens casus evaserat omnes,
Redditaque Eurydice superas veniebat ad auras,
Pone sequens, namque hanc dederat Proserpina legem,
Cum subita incautum dementia cepit amantem,
Ignoscenda quidem, scirent si ignoscere Manes:
Restitit, Eurydicenque suam, iam luce sub ipsa,
Inmemor, heu! victusque animi respexit. Ibi omnis

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Effusus labor, atque inmitis rupta tyranni
Foedera, terque fragor stagnis auditus Avernis.
Illa, Quis et me, inquit, miseram, et te perdidit, Orpheu,
Quis tantus furor ? En iterum crudelia retro
Fata vocant, conditque natantia lumina somnus.
Iamque vale : feror ingenti circumdata nocte,
Invalidasque tibi tendens, heu non tua, palmas !
Dixit, et ex oculis subito, ceu fumus in auras
Commixtus tenues, fugit diversa, neque illum,
Prensantem nequiquam umbras et multa volentem
Dicere, praeterea vidit ; nec portitor Orci
Amplius obiectam passus transire paludem.

VI. Translate into Latin prose :—

My lords, the prisoner at the bar is charged with one of the blackest crimes that sully the annals of our nation's history. He is a man who, throughout the whole course of life, has shown himself alike devoid of scruples of conscience and sensibility to shame, and has ever sacrificed his country's good to his private gain. I pass over, my lords, the debaucheries that stained his early youth, the graver crimes and heartless policy that characterised his maturer years. I recall not to your minds how, in that massacre of an innocent and misguided people, he spared no age, no sex, no rank, but displayed an unexampled atrocity, a refinement of barbarity that dwarfs description ; but I confidently call upon you, in the name of justice, I adjure you, by the great principles of right and wrong, to condemn him solely on the charge on which he stands arraigned.

HONOUR PAPERS.

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 BOULGER, M.A., D.LITT.

Time—Three hours.

I. Translate—

"Ὡς ἔφατ' εὐχόμενος, τοῦ* δ' ἔκλυε Φοῖβος Ἀπόλλων,
βῆ δὲ κατ' Οὐλύμπιοι καρήνων χωόμενος κῆρ,

τόξ' ὤμοισιν ἔχων ἀμφηρεφέα τε φαρέτρην.
ἔκλαξαν δ' ἄρ' οἷστοι ἐπ' ὤμων χωμόεοιο,
αὐτοῦ κινηθέντος· ὃ δ' ἦε* νυκτὶ εοικώς.
ἔζετ' ἔπειτ' ἀπάνευθε νεών, μετὰ δ' ἰὸν ἔηκε.*
δεινὴ δὲ κλαγγὴ γένετ' ἀργυρέοιο βιοῖο.
οὐρήσας μὲν πρῶτον ἐψέχето καὶ κύνας ἀργούς,
αὐτὰρ ἔπειτ' αὐτοῖσι βέλος ἔχευενκὲς ἔφεις
βάλλ'·* αἰεὶ δὲ πυραὶ νεκύων καίοντο θαμειαί.
Parse the words marked with an asterisk.

II. Translate—

‘Οἰνοβαρές, κυνὸς ὄμματ' ἔχων, κραδίην δ' ἐλάφοιο,
οὔτε ποτ' ἐς πόλεμον ἅμα λαῶ θωρηχθῆναι
οὔτε λόχονδ' ἵεναὶ σὺν ἀριστήεσσιν Ἀχαιῶν
τέτληκας θυμῶ· τὸ δέ τοι κῆρ εἶδεται εἶναι.
ἦ πολὺ λώϊόν ἐστι κατὰ στρατὸν εὐρὺν Ἀχαιῶν
δώρ' ἀποιεῖσθαι, ὅστις σέθεν ἀντίον εἶπη.
δημοβόρος βασιλεύς, ἐπεὶ οὐτιδανοῖσιν ἀνάσσει·
ἦ γὰρ ἂν, Ἀτρεΐδῃ, νῦν ὕστατα λωβήσαιο.
ἀλλ' ἔκ τοι ἐρέω καὶ ἐπὶ μέγαν ὄρκον ὁμοῦμαι·
ναὶ μὰ τόδε σκῆπτρον, τὸ μὲν οὔποτε φύλλα καὶ ὄζους
φύσει, ἐπεὶ δὴ πρῶτα τομῆν ἐν ὄρεσσι λέλοιπεν,
οὔδ' ἀναθλήσει· περὶ γὰρ ῥά ἐ χαλκὸς ἔλεψε
φύλλα τε καὶ φλοῖόν· νῦν αὐτέ μιν υἴες Ἀχαιῶν
ἐν παλάμῃς φορέουσι δικασπόλοι' οὔτε θέμιστας
πρὸς Διὸς εἰρύταται· ὃ δέ τοι μέγας ἔσσεται ὄρκος·
ἦ ποτ' Ἀχιλλῆος ποθὴ ἕξεται υἴας Ἀχαιῶν
σύμπαντας· τότε δ' οὔτι δυνήσεται ἀχνύμενός περ
χραιομεῖν, εὔτ' ἂν πολλοὶ ὑφ' Ἔκτορος ἀνδροφόνοιο
θνήσκοντες πίπτωσι· σὺ δ' ἐνδοθι θυμὸν ἀμύξεις
χωόμενος, ὃ τ' ἀριστὸν Ἀχαιῶν οὐδὲν ἔτισας.

Point out five words in the above passage which are not Attic, and give the Attic equivalents.

III. Translate—

“Ὡς ἄρα φωνήσασ' ἀπεβήσето, τὸν δ' ἔλιπ' αὐτοῦ
χωόμενον κατὰ θυμὸν εὐζώνιοιο γυναικός,
τὴν ῥά βίη ἀέκοντος ἀπηύρων· αὐτὰρ Ὀδυσσεὺς
ἐς Χρῦσῃν ἵκανε ἀγων ἰερὴν ἑκατόμβην.
οἱ δ' ὅτε δὴ λιμένος πολυβενθέος ἐντὸς ἵκοντο,
ἰστία μὲν στείλαντο, θέσαν δ' ἐν νηὶ μελαίνῃ,
ἰστὸν δ' ἰστοδόκη πέλασαν, προτόνοισιν ὑφέντες
καρπαλίμως, τὴν δ' εἰς ὄρμον προέρεσαν ἔρετμοῖς.
ἐκ δ' εὐνὰς ἔβαλον, κατὰ δὲ πρυμνήσι' ᾤδησαν·
ἐκ δὲ καὶ αὐτοὶ βαίον ἐπὶ ῥηγμῖνι θαλάσσης,

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ἐκ δ' ἑκατόμβην βῆσαν ἐκηβόλω Ἀπόλλωνι·
ἐκ δὲ Χρυσῆς νηὸς βῆ ποντοπόροι.
τὴν μὲν ἔπειτ' ἐπὶ βωμῶν ἄγων πολύμητις Ὀδυσσεὺς
πατρὶ φίλω ἐν χερσὶ τίθει, καὶ μιν προσέειπεν.

IV. Translate—

Τὸ δὲ δὴ μετὰ τοῦτο ἐπιθυμῶ ὑμῖν χρησιμῶσαι, ὃ καταψηφισάμενοί μου· καὶ γὰρ εἰμι ἤδη ἐνταῦθα, ἐν ᾧ μάλιστ' ἀνθρώποι χρησιμῶδουσιν, ὅταν μέλλωσιν ἀποθανεῖσθαι. φημί γάρ, ὦ ἄνδρες, οἱ ἐμὲ ἀπεκτόνατε, τιμωρίαν ὑμῖν ἤξειν εὐθὺς μετὰ τὸν ἐμὸν θάνατον πολὺ χαλεπώτεραν νῆ Δίῃ ἢ οἶαν ἐμὲ ἀπεκτόνατε· νῦν γὰρ τοῦτο εἰργάσασθε οἰόμενοι μὲν ἀπαλλάξεσθαι τοῦ δίδομαι ἔλεγχον τοῦ βίου, τὸ δὲ ὑμῖν πολλὸν ἐναντίον ἀποβήσεται, ὡς ἐγὼ φημι. πλείους ἔσονται ὑμᾶς οἱ ἐλέγχοντες, οὓς νῦν ἐγὼ κατεῖχον, ὑμεῖς δὲ οὐκ ἠσθάνεσθε· καὶ χαλεπώτεροι ἔσονται ὅσῳ νεώτεροί εἰσι, καὶ ὑμεῖς μᾶλλον ἀγανακτήσετε. εἰ γὰρ οἴεσθε ἀποκτείνοντες ἀνθρώπους ἐπισχῆσειν τοῦ ὄνειδίζειν τινα ὑμῖν ὅτι οὐκ ὀρθῶς ζῆτε, οὐκ ὀρθῶς διανοεῖσθε· οὐ γὰρ ἐστ' αὕτη ἡ ἀπαλλαγὴ οὔτε πάννυκτος οὔτε ἀσπασίας, ἀλλ' ἐκείνη καὶ καλλίστη καὶ βέλτιστη, μὴ τοὺς ἄλλους κολούειν, ἀλλ' ἑαυτὸν παρασκευάζειν ὅπως ἔσται ὡς βέλτιστος. ταῦτα μὲν οὖν ὑμῖν τοῖς καταψηφισαμένοις μαντευσάμενος ἀπαλλάττομαι.

Write a note on the construction of οἶαν ἐμὲ ἀπεκτόνατε.

V. Translate—

Οὐδενὶ τρόπῳ φαμὲν ἐκόντας ἀδικητέον εἶναι, ἢ τινὲ μὲν ἀδικητέον τρόπῳ, τινὲ δὲ οὐ; ἢ οὐδαμῶς τό γε ἀδικεῖν οὔτε ἀγαθὸν οὔτε καλόν, ὡς πολλάκις ἡμῖν καὶ ἐν τῷ ἔμπροσθεν χρόνῳ ὡμολογήθη· ἢ πάσαι ἡμῖν ἐκεῖναι αἱ πρόσθεν ὁμολογίαι ἐν ταῖςδε ταῖς ὀλίγαις ἡμέραις ἐκκεχυμέναί εἰσιν, καὶ παλαι, ὦ Κρίτων, ἄρα τηλικοῖδε ἄνδρες πρὸς ἀλλήλους σπουδῇ διαλεγόμενοι ἐλάθομεν ἡμᾶς αὐτοὺς παίδων οὐδὲν διαφέροντες; ἢ παντὸς μᾶλλον οὕτως ἔχει, ὡς περ τότε ἐλέγετο ἡμῖν, εἴτε φασὶν οἱ πολλοὶ εἴτε μή, καὶ εἴτε δεῖ ἡμᾶς εἶτι τῶνδε χαλεπώτερα πάσχειν εἴτε καὶ πραότερα, ὅμως τό γε ἀδικεῖν τῷ ἀδικοῦντι καὶ κακὸν καὶ αἰσχρὸν τυγχάνει ὃν παντὶ τρόπῳ.

Review the arguments by which Sokrates convinces Kriton that he should not attempt to escape from prison.

VI. Translate into Greek Prose—

I believe that only God is really wise, and that by this oracle he meant that men's wisdom is worth little or nothing. I do not think that he meant that Sokrates was

wise. He only made use of my name, and took me as an example, as though he should say to men—"He among you is the wisest who, like Sokrates, knows that in very truth his wisdom is worth nothing at all. And, therefore, I still go about testing every man whom I think wise, and, whenever I find that he is not wise, I point out to him, on the part of God, that he is not wise."

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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. Sum the following series—

(i.) $\frac{1}{a}, -\frac{1}{ab}, \frac{1}{ab^2}, -\frac{1}{ab^3}$ etc. to c terms.

(ii.) $a + \frac{1}{a} + 1, a^2 + \frac{2}{a} + 1, a^3 + \frac{3}{a} + 1$ etc. to n terms.

II. Show how to obtain the square root of $p + \sqrt{q}$

Rationalise the denominator of—

$$\frac{\sqrt{a^4 - b^4}}{\sqrt{a^2 + b^2} + \sqrt{a^2 - b^2} - \sqrt{2a^2}}$$

II. Prove that a ratio of greater inequality is diminished, and a ratio of less inequality is increased, by adding the same quantity to both its terms.

If $\frac{a}{b} = \frac{b}{c} = \frac{c}{d}$

Prove $\frac{a^2}{b^2} = \frac{3a^2 + 2ac + 6bd}{3b^2 + 2c^2 + 6d^2}$

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IV. Solve the equations

$$(i.) \sqrt{x^2-4} + \sqrt{x^2-3} = 1$$

$$(ii.) \begin{aligned} x^2 - xy + y^2 &= 3 \\ x^2 - y^2 &= 3 \end{aligned}$$

$$(iii.) x^4 - 4x^3 + 4x^2 - 1 = 0$$

V. State and prove the Binomial Theorem for a positive integral exponent.

$$\text{Expand } (x - \frac{1}{3}a^2)^7$$

VI. Two trains start simultaneously from two stations A and B , each to the opposite station. They travel at the rates of 40 and 60 miles per hour respectively and pass one another at a point C . On the return journey the fast train starts from A $12\frac{1}{2}$ min. after the slow train starts from B ; they again pass one another at the point C . Find the distance between A and B .

VII. Explain the different methods of measuring angles, and show how to express an angle measured in one system in terms of its measure in another system.

VIII. Prove geometrically that—

$$\begin{aligned} \sin(A + B) &= \sin A \cos B + \cos A \sin B \\ \cos(A + B) &= \cos A \cos B - \sin A \sin B \end{aligned}$$

Hence deduce

$$\cos 75^\circ = \frac{(\sqrt{3} - 1) \sqrt{2}}{4}$$

IX. Prove that

$$\begin{aligned} \sin A &= \sin(180^\circ - A) \\ \text{and } \cos A &= -\cos(180^\circ - A) \end{aligned}$$

Do these equations hold if A is an angle greater than 180° ? Give reasons for your answer.

MATHEMATICS II.—(Pass Paper).

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

I Draw a tangent to a given circle from a given point without it.

An equilateral triangle ABO is placed within a circle so that A and B lie on the circumference whilst O is the centre of the circle. Tangents AT and BT are then drawn to the circle meeting at the point T . TO meets AB in X . Prove that AT is twice XT .

- II. Find the centre of the circumscribing circle of a given triangle.

Show that a circle can be described passing through two of the angular points of a triangle, the centre of the inscribed circle, and the centre of the escribed circle which touches the side bounded by the two angular points.

- III. State Euclid's definition of proportion.

Hence prove that triangles upon equal bases are to one another as their altitudes.

- IV. Any equilateral polygon which can be inscribed within a circle is also equiangular.

Does this hold for equilateral polygons which can be described *about* a circle?

- V. If two straight lines are parallel and one of them is perpendicular to a plane, the other will also be perpendicular to the same plane.

- VI. A quadrilateral $PQRS$ is described in a circle, and in such that the rect. $PQ \cdot PS$ is equal to the rect. $RQ \cdot RS$. Prove that the diagonal QS bisects the diagonal PR .

- VII. Having given two sides of a triangle and the included angle, state and prove a formula adapted for finding the other angles.

- VIII. Prove that

$$\frac{\cos 6A - \cos 3A}{\cos 5A - \cos 4A} = 1 + 2 \cos A$$

Find all the values of x which satisfy the equation—

$$\sin \frac{x}{2} = \cos 2x - \cos x$$

- IX. Solve the triangle ABC where $a = 784\text{ft.}$ $A = 36^\circ 15'$, $B = 87^\circ 26'$

Having given

$$\begin{aligned} \log 7 \cdot 84 &= \cdot 8943161, \quad \text{L} \sin 87^\circ 26' = 9 \cdot 9995641 \\ \log 1 \cdot 32455 &= \cdot 1220652, \quad \text{L} \sin 36^\circ 15' = 9 \cdot 7718150 \\ \log 1 \cdot 10328 &= \cdot 0426847, \quad \text{L} \sin 56^\circ 19' = 9 \cdot 9201836 \end{aligned}$$

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HONOUR PAPERS.

Honour Papers in Mathematics for the First Year were the same as the Pass Papers set for the Second Year.

ELEMENTARY PHYSICS. I. (Pass Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. What is meant by relative velocity? Give instances, prove the truth of the Parallelogram of Velocities.
- II. Explain how a sailing vessel is propelled by the wind when blowing right across her course. Show by a diagram what proportion of the force of the wind is actually spent in propelling the vessel.
- III. Distinguish between stable and unstable equilibrium. Give examples.
- IV. What is a "co-efficient of friction?" Explain how it is that a pulley obviates, to some extent, the effect of friction, and why a large pulley does this better than a small one.
Explain the mode of action of the differential pulley.
- V. State the formula which gives the period of vibration of a pendulum of known length.
There is a certain clock which, in winter, keeps correct time; but in summer the rod of the pendulum lengthens through heat, so that the bob is lowered by a small amount equal to one-thousandth part of the length of the rod. Find approximately how much the clock will lose.
- VI. Is the pressure on the base of a flat-bottomed vessel equal to the weight of the water contained in the vessel? Describe experiments in confirmation of your answer.
- VII. A tube of uniform bore is bent into the form of a **U** and placed on the table with both branches vertical. Mercury is poured in so that the surface is, in both arms, 12 inches above the level of the table. If, now, there be poured into one of the branches such a quantity of water as fills a length of the tube equal to 25 inches, what will be the difference in level of the liquids in the two

branches? What will be the height of each above the table?

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- VIII. If a test tube be filled with water, a second test tube rather smaller than the first, and empty, be pushed down an inch or two into the first, and the two be then inverted, the second test tube will be sucked up into the first. Explain this.
- IX. A tube is held in a vertical position, and a tuning fork is found which, when caused to vibrate and held over the top of the tube, causes the air in it to sound. If, however, the lower end of the tube be closed by bringing up a beaker of water underneath it, it ceases to sound to the fork. If a fork be taken which is a fifth above the former, it causes the air in the tube to sound when the lower end is closed, and not when it is open. Explain these facts.
- X. If two tuning forks of equal pitch be taken, and a pellet of wax be stuck on the prongs of one of them, there will be, when they sound together, a series of risings and fallings of the sound. Explain this.

ELEMENTARY PHYSICS II. (Pass Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. If a bar of steel be held in a vertical position in this latitude and struck violently, it becomes slightly magnetic. How is this?
- II. What laws regulate the attraction of magnetic pole on another? Two magnets, one 4 *cm* long, the other 6 *cm* long, are placed east and west in a straight line, and there is a distance of 20 *cm* between their centres. A small magnet mounted on a pivot is placed between the two first magnets and in the same straight line, the pivot being 12 *cm* away from the centre of the first magnet and 8 *cm* away from the centre of the second, and it is found that in spite of the influences exerted on it by the two first magnets, the mounted magnet points north and south. Compare the strengths of the first two magnets.
- III. What effect has an electric current on a magnetic pole? How is this effect used to measure the strength of electric currents?

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- IV. How is the light produced (i) in an arc lamp (ii) in a glow lamp?
 What current will be required to light in the usual way ten arc lamps if each requires a current of 15 ampères under an E.M.F. of 50 volts.
 What current will be required to light in the usual way ten glow lamps, if each requires a current of .7 ampères under an E.M.F. of 150 volts.
- V. Describe a way of proving that there is no charge in the interior of a charged conductor. How do you account for the fact?
- VI. Account for the difference in the phenomena when a ray of light falls on a mirror and on a piece of cloth.
- VII. Account for the presence of the dark lines in the solar spectrum.
- VIII. How would you test whether a liquid possesses the power of rotating the plane of polarization of polarised light? Account for the colours produced when white light is used.
- IX. Describe the method by which Joule found the mechanical equivalent of heat. Assuming it to be 1390 foot pounds for a degree centigrade, compare the energy in a mass of 1 ton moving with a velocity of 10 feet a second, with the energy set free when 1 lb. of water at 0°C becomes ice at 0°C.
- X. What is the Dew-point?
 Explain the action of the wet-bulb thermometer.

ENGLISH LANGUAGE AND LITERATURE.

(Pass Paper.)

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Point out peculiarities in the formation of the following words:—Third, Chamber, Thunder, Farther, Bridegroom, Custard, Island, Whole, Verdigris, Strong.
- II. “When Shakespeare began to write, there were very few inflections; the language began to feel greater liberty,

and a writer would use the same word sometimes as one part of speech, and sometimes as another." Give instances of Shakespeare's employment of this liberty.

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- III. Give the derivation of—Surgeon, Alimony, Hatchment, Jeopardy, Milliner, Country-dance, Piecemeal, Catchpole, Gainsay, Umpire.
- IV. Give the most important modern derivations from the following old English verbs :—Cennan, Cunnan, Sceran, Fangan, Grafan.
- V. Refer to any passages in the Essays of Charles Lamb which reveal his life and character.
- VI. Describe Tennyson's "Last Tournament," and quote passages illustrative of its pathetic tone.
- VII. Give instances of Tennyson's resuscitation of old English words and phrases.
- VIII. Give a short account of the poems from which the following quotations are taken ?—
1. My fugitive years are all wasting away,
And I must ere long lie as lowly as they,
With a turf on my breast, and a stone at my head,
E'er another such grove shall arise in its stead.
 2. The best laid schemes o' mice and men
Gang aft agley.
 3. E'en in our ashes live their wonted fires.
 4. Then felt I like a watcher of the skies
When a new planet swims into his ken.
 5. A perfect woman, nobly plann'd,
To warn, to comfort, and command.
 6. It is enough for me to prove
That what I loved and long must love
Like common earth can rot.
To me there needs no stone to tell,
'Tis nothing that I loved so well.
 7. The sentinel stars set their watch in the sky.
- IX. Write short memoirs of five of the most distinguished lyrical poets from Gray to Wordsworth.

ENGLISH LANGUAGE AND LITERATURE.

(Honour Paper).

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Translate word for word the following passages into modern English :—

Thá cwæp hé tó his théowum : Witodlice thás giefta sind gearwe, ac thá the gel'athode wæron ne sind wierthe. Gáth un tó wega geláetum, and clipiath tó thissum gieftum swá hwelce swá gé gem'éten.' Thá éodon thá théowas út on thá wegás, and geg'adrodon ealle thá the hie gem'éttón, góde and yfle ; thá wáeron thá gieft-hús mid sittendum mannum gefylđu.

1. Parse *cwæth, theowum, gath, wega gelaetum, gegadrodon*.
2. Specify some peculiarities in the pronunciation of English in King Alfred's time.
3. Decline in full *fót, hús, sunu, sunne, móna*.
4. Give examples of the use of *se* as an article, a demonstrative, and a relative.
5. Write down the 1st person singular, perfect tense, active voice of :—
niman, swincan, stelan, etan, sécan.
6. Write out in full the present indicative and subjunctive of Gán.

- II. Translate into modern English :—

Duc William was tho old · nyne & thritti yer,
& on & thritti yer he was · of Normandie duc er.
Tho this bataile was ydo · duc Willam let bringe
Vaire is folc, that was aslawe · an erthe thoru alle thinge.
Alle that wolde, leue he yef · that is fon anerthe broyete.
Haraldes modor uor hire sone · wel yerne him bisoyte.
Bi messagers & largeliche · him bed of ire thinge,
To *granti* hire hire *a* sones bodi · anerthe vor to bringe.
Willam hit sende hire vaire inou · withoute eny thing wareuore:
So that it was thoru hire · with gret honour ybore
To the hous of Waltham . & ibroyt anerthe there,
In the holi rode chirche · that he let himsulf rere,
An hous of religion · of canons ywis.

- III. Translate with such commentary as you may deem necessary !

Lenten ys come with loue to toune,
With blosmen & with briddes roune,
That al this blisse bryngeth ;

Dayes-eyes in this dales,
Notes suete of nytegales,
Vch foul song singeth.

The threselcoc him threteth oo,
Away is huere wynter wo,
When woderoue spryngeth ;

This foules singeth ferly fele,
Ant wlyteth on huere wynter wele,
That al the wode ryngeth.

The rose rayleth hire rode,
The leues on the lyhte wode
Waxen al with wille ;

The mone mandeth hire bleo,
The lilie is lossom to seo,
The fenyl & the fille.

- IV. Give the substance of Macaulay's criticism on Milton's sonnets, and state what you know of the sonnet which he styles "a collect in verse."
- V. "It is hardly too much to say, that Lord Byron could exhibit only one man, and only one woman." Examine this statement.
- VI. Enumerate the most important works of Samuel Johnson. What does Macaulay consider the characteristic peculiarity of his intellect ?
- VII. Criticise Madame D'Arblay's three styles.
- VIII. What, according to Macaulay, chiefly distinguishes Addison from all other great masters of ridicule ?
- IX. Refer to some of Browning's poems which are affected by Italian influences.
- X. Shakespeare has suggested two poems to Browning. Give a short account of the poems.
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LATIN. (Pass Paper.)

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

I. Translate—

Heu vatum ignarae mentes ! quid vota furentem,
Quid delubra iuvant ? est molles flamma medullas
Interea, et tacitum vivit sub pectore volnus.
Uritur infelix Dido totaque vagatur
Urbe furens, qualis coniecta cerva sagitta,
Quam procul incautam nemora inter Cresia fixit
Pastor agens telis, liquitque volatile ferrum
Nescius ; illa fuga silvas saltusque peragrat
Dictaeos ; haeret lateri letalis arundo.

“ Noli jungere,” says Wagner, “ *mentes vatum sed ignarae vatum.*” Adopting this view, how should you interpret the expression ?

II. Translate—

Extemplo Libyae magnas it Fama per urbes,
Fama, malum qua non aliud velocius ullum ;
Mobilitate viget, viresque acquirit eundo ;
Parva metu primo ; mox sese attollit in auras,
Ingrediturque solo et caput inter nubila condit.
Illam Terra parens, ira inritata deorum,
Extremam, ut perhibent, Coeo Enceladoque sororem
Progenuit, pedibus celerem et pernicibus alis,
Monstrum horrendum, ingens, cui, quot sunt corpore plumae,
Tot vigiles oculi subter, mirabile dictu,
Tot linguae, totidem ora sonant, tot subrigit aures.
Nocte volat caeli medio terraeque per umbram,
Stridens, nec dulci declinat lumina somno ;
Luce sedet custos aut summi culmine tecti.
Turribus aut altis, et magnas territat urbes,
Tam ficti pravique tenax, quam nuntia veri.

Scan—

Extremam ut perhibent Coeo Enceladoque sororem.

III. Translate—

Nox erat, et placidum carpebant fessa soporem
Corpora per terras, silvaeque et saeva quierant

Aequora ; cum medio volvuntur sidera lapsu,
 Cum tacet omnis ager, pecudes pictaeque volucres,
 Quaeque lacus late liquidos, quaeque aspera dumis
 Rura tenent, somno positae sub nocte silenti
 Lenibant curas et corda oblita laborum.
 At non infelix animi Phoenissa, nec umquam
 Solvitur in somnos, oculisque aut pectore noctem
 Accipit : ingeminant curae, rursusque resurgens
 Saevit amor, magnoque irarum fluctuat aestu.

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Describe the character of Dido as portrayed by Vergil.

IV. Translate—

Magnæ partis fuga inde primum cœpit : et jam nec lacus nec montes pavori obstabant : per omnia arcta præruptaque velut cæci evadunt, armaque et viri super alium alii præcipitantur. Pars magna, ubi locus fugæ deest, per prima vada paludis in aquam progressi, quoad capitibus humerisque exstare possunt, sese immergunt : fuere, quos inconsultus pavor nando etiam capessere fugam impulerit, quæ ubi immensa ac sine spe erat, aut deficientibus animis hauriebantur gurgitibus, aut nequicquam fessi vada retro ægerrime repetebant, atque ibi ab ingressis aquam hostium equitibus passim trucidabantur. Sex millia ferme primi agminis per adversos hostes eruptione impigre facta, ignari omnium quæ post se agerentur, ex saltu evasere, et quum in tumultu quodam constitissent, clamorem modo ac sonum armorum audientes, quæ fortuna pugnæ, esset, neque scire nec perspicere præ caligine poterant. Inclinata denique re quum incalescente sole dispulsa nebula aperuisset diem, tum liquida jam luce montes campique perditas res stratamque ostendere fœde Romanam aciem.

Give a short account of the battle of Lake Trasumennus and describe the position of the Lake.

V. Translate—

Hannibali victori quum cæteri circumfusi gratularentur suaderentque, ut tanto perfunctus bello diei quod reliquum esset noctisque insequentis quietem et ipse sibi sumeret et fessis daret militibus, Maharbal præfectus equitum minime cessandum ratus "Immo ut, quid hac pugna sit actum, scias, die quinto" inquit "victor in Capitolio epulaberis. Sequere : cum equite, ut prius venisse quam venturum sciant, præcedam." Hannibali nimis læta res est visa majorque quam ut eam statim capere animo posset : itaque voluntatem se laudare Maharbalis ait, ad consilium pensan-

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dum temporis opus esse. Tum Maharbal : " Non omnia nimirum eidem dī dedere : vincere scis, Hannibal, victoria uti nescis." Mora ejus diei satis creditur saluti fuisse urbi atque imperio.

Contrast the Roman with the Carthaginian military system during the second Punic War—

VI. Translate into Latin Prose—

It is said, that Scipio, in a conversation with Hannibal, asked him, whom he thought the greatest general ; and that he answered, " Alexander of Macedon, because he had defeated the most numerous armies with a small number of men, and had traversed the most remote countries, which it had surpassed the hopes of man to visit."—" Whom do you place in the second rank?" said Scipio. " Pyrrhus," answered the other ; " for he first taught how to form a camp, and had such an art of conciliating men, that the Italian nations chose rather to be subject to him, though a foreigner, than to the Roman people."—" Whom do you reckon third?" said Scipio. " Myself," replied the Carthaginian. Scipio, who at this answer burst into a laugh, asked next, " What would you say, had you conquered me?"—" Then, indeed," said Hannibal, " I should have placed myself before Alexander and Pyrrhus, and all other generals."

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 BOULGER, M.A., D.LITT.

Time—Three hours.

I. Translate—

παῖδες δὲ πέπλων μητρὸς ἐξηρητημένοι*
ἔκλαιον ἢ δὲ λαμβάνονο' ἐν ἀγκάλαις
ἡσπάξετ' ἄλλοτ' ἄλλον, ὡς θανουμένηη.*
πάντες δ' ἔκλαιον οἰκέται κατὰ στέγας
δέσποιναν οἰκτείροντες. ἢ δὲ δεξιάν

προὔτειν* ἐκάστω, κοῦτις ἦν οὔτω κακὸς
 ὃν οὐ προσεῖπε καὶ προσερρήθη* πάλιν.
 τοιαῦτ' ἐν οἴκοις ἐστὶν Ἀδμήτου κακά.
 καὶ κατθανών τ' ἂν ὄλετ', ἐκφυγὼν δ' ἔχει
 τοσοῦτον ἄλγος, οὐ ποτ' οὐ λελήσεται.

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Parse the words marked with asterisks.

Scan the first two lines.

II. Translate—

εἴθ' ἐπ' ἐμοὶ μὲν εἴη,
 δυναίμαν δέ σε πέμψαι
 φάος ἐξ Ἀΐδα τερέμων
 Κωκυτοῦ τε βέεθρων
 ποταμῖα νερτέρᾳ τε κώπῃ.
 σὺ γάρ, ὦ μόνα, ὦ φίλα γυναικῶν,
 σὺ τὸν αὐτὰς
 ἔτλας πόσιν ἀντὶ σῶς ἀμείψαι
 ψυχᾶς ἐξ Ἀΐδα. κούφα σοι
 χθῶν ἐπάνωθε πέσοι, γύναι. εἰ δέ τι
 καινὸν ἔλοιτο λέχος πόσις, ἢ μάλ' ἐμοί τ' ἂν εἴη
 στυγηθεὶς τέκνοις τε τοῖς σοῖς.

Point out the forms which are not Attic in the above, and give the Attic equivalents.

III. Translate—

οὔτοι σ' ἀτίζων οὐδ' ἐν ἐχθροῖσιν τιθεὶς
 ἔκρηψ' ἐμῆς γυναικὸς ἀθλίους τύχας·
 ἀλλ' ἄλγος ἄλγει τοῦτ' ἂν ἦν προσκείμενον,
 εἴ του πρὸς ἄλλον δώμαθ' ὠρμήθης ξένου·
 ἄλις δὲ κλαίειν τοῦμὸν ἦν ἐμοὶ κακόν.
 γυναῖκα δ', εἴ πως ἐστίν, αἰτοῦμαι σ', ἀναξ,
 ἄλλον τιν' ὅστις μὴ πέπονθεν οἷ' ἐγὼ
 σώξειν ἀνωχθὶ Θεσσαλῶν· πολλοὶ δὲ σοὶ
 ξένοι Φεραίων· μὴ μ' ἀναμνήσης κακῶν.
 οὐκ ἂν δυναίμην τήνδ' ὄρων ἐν δώμασιν
 ἄδακρυς εἶναι· μὴ νοσοῦντί μοι νόσον
 προσθήσ' ἄλις γὰρ συμφορᾷ βαρύνομαι.

Explain the force of ἂν with the indicative.

IV. Translate :—

Ἄ μὲν οὖν χρήσεται καὶ πότε τῇ δυνάμει, παρὰ τὸν καιρὸν ὁ
 τούτων κύριος καταστὰς ὑφ' ἡμῶν βουλευσεται· ἂ δ' ὑπάρξαι
 δεῖ παρ' ἡμῶν, ταῦτ' ἐστὶν ἂ ἐγὼ γέγραφα. ἂν ταῦτα, ὦ
 ἄνδρες Ἀθηναῖοι, πορίσγητε τὰ χρήματα πρῶτον ἂ λέγω, εἶτα

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καὶ τᾶλλα παρασκευάσαντες, τοὺς στρατιώτας, τὰς τριήρεις, τοὺς ἵππεας, ἐντελῆ πάσαν τὴν δύναμιν, νόμφ κατακλείσθητε ἐπὶ τῷ πολέμῳ μένειν, τῶν μὲν χρημάτων αὐτοὶ ταμίαι καὶ πορισταὶ γιγνόμενοι, τῶν δὲ πράξεων παρὰ τοῦ στρατηγοῦ τὸν λόγον ζητοῦντες, παύσεσθ' αἰεὶ περὶ τῶν αὐτῶν βουλευόμενοι καὶ πλέον οὐδὲν ποιοῦντες.

Distinguish the use of *παρὰ* with the genitive, dative, and accusative cases respectively.

V. Translate—

καὶ ταῦτα μὲν ἔστιν ἅπαντα χειροποίητα, καὶ δαπάνης προσδέεται· ἐν δὲ τι κοινὸν ἢ φύσις τῶν εὖ φρονούντων ἐν αὐτῇ κέκρηται φυλακτήριον, ὃ πᾶσι μὲν ἔστιν ἀγαθὸν καὶ σωτήριον, μάλιστα δὲ τοῖς πλήθεσι πρὸς τοὺς τυράννους. τί οὖν ἔστι τοῦτο; ἀπιστία. ταύτην φυλάττετε, ταύτης ἀντέχεσθε· ἐὰν ταύτην σώζητε, οὐδὲν μὴ δεινὸν πάθητε.

Explain the construction of οὐδὲν μὴ δεινὸν πάθητε.

VI. Translate—

οὗτος τὰ μὲν ἄλλα ὡς ὑβρίζετο καὶ προὔπηλακίζετο ὑπὸ τοῦ δήμου τοῦ τῶν Ὀρειῶν, πόλλ' ἂν εἴη λέγειν· ἐνιαυτῷ δὲ πρότερον τῆς ἀλώσεως ἐνέδειξεν ὡς προδότην τὸν Φιλιστίδην καὶ τοὺς μετ' αὐτοῦ, αἰσθόμενος ἃ πράττουσιν. συστραφέντες δ' ἄνθρωποι πολλοὶ καὶ χορηγὸν ἔχοντες Φίλιππον καὶ πρυτανεύοντο παρ' ἐκείνου, ἀπάγουσι τὸν Εὐφραῖον εἰς τὸ δεσμωτήριον ὡς συνταράττοντα τὴν πόλιν. ὁρῶν δὲ ταῦθ' ὁ δῆμος ὁ τῶν Ὀρειῶν, ἀντὶ τοῦ τῷ μὲν βοηθεῖν, τοὺς δ' ἀποτυμπανίσαι, τοῖς μὲν οὐκ ὠργίζετο, τὸν δ' ἐπιτήδειον εἶναι ταῦτα παθεῖν ἔφη καὶ ἐπέχειρεν. μετὰ ταῦθ' οἱ μὲν ἐπ' ἐξουσίας ὀπίσης ἠβούλοντ' ἔπραττον ὅπως ἢ πόλις ληφθῆσεται, καὶ κατεσκευάζοντο τὴν πράξιν· τῶν δὲ πολλῶν εἴ τις αἰσθοῖτο, εἰσίγα καὶ κατεπέπληκτο, τὸν Εὐφραῖον οἷα ἔπαθε μεμνημένοι. οὕτω δ' ἀθλίως δέκειντο ὥστε οὐ πρότερον ἐτόλμησεν οὐδεὶς τοιοῦτου κακοῦ προσιώντος ῥῆξαι φωνὴν, πρὶν διασκευασάμενοι πρὸς τὰ τείχη προσήεσαν οἱ πολέμοι· τηνικαῦτα δ' οἱ μὲν ἠμύνοντο, οἱ δὲ προὔδιδον.

Give the primitive meaning of—

προεπηλακίζετο, χορηγόν, πρυτανεύοντο, ἀποτυμπανίσαι.

VII. Translate into Greek Prose—

When the generals whom you chose to command me, Athenians, placed me at my post at Potidaea, I remained where they had placed me, and ran the risk of death, like

other men : and it would be very strange conduct on my part if I were to desert my post now from fear of death or any other thing, when God has commanded me, as I am persuaded that he has done, to spend my life in searching for wisdom, and in examining myself and others.

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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.

APPLIED MATHEMATICS I. (Pass Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Explain how the “parallelogram of forces” may be derived from the “parallelogram of velocities” with the aid of Newton’s Laws of Motion.

$ABCDEF$ is a regular hexagon : find the resultant of the forces which are completely represented by the sides AB , CD , FE .

- II. Prove that the effect of a couple acting upon a rigid body is not altered by transferring it to any parallel plane.

Prove that if three points can be found (not in the same straight line) in the plane of a system of uniplanar forces, such that the sum of the moment of the forces about each of them is zero, then the system is in equilibrium.

- III. What are the requisites of a good balance? Investigate the conditions that a balance should be “sensible” and explain how they are at variance with other desirable properties.

- IV. Two balls, of equal weight W , are connected by a string $ACDB$, which passes over two tacks C , D , in a horizontal line : a given sphere of weight W being placed on the string at the middle point of CD , find how far A and B must rise before the system comes into a position of equilibrium.

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- V. Find the position of the centre of mass in a triangular pyramid.
- VI. Explain the meaning of the term "dimensions." What are the dimensions of "Velocity," "Work," "Force"?
- An engine is driving at full speed a quantity of machinery by means of a belt passing round a wheel five feet in diameter. The wheel is making 70 revolutions a minute, and the difference in the tensions of the belt on the two sides of the wheel is 30 lbs. Find the actual h.p. of the engine.
- VII. Explain Newton's second Law of Motion and show how we may derive from it the principle of the "physical independence of forces" and the formula $P = Mf$.
- At the two ends of the cord passing over the pulley in Atwood's machine are hanging scale pans each of 2 ounces weight : in the one is placed a weight of 1 ounce in the other a weight of $\frac{1}{4}$ ounce. Find the pressure of each weight on the scale pan in which it is placed. The inertia of the pulley may be neglected.
- VIII. A and B are two masses joined together by a string which passes over a pulley. Prove that the tension of the string is

$$\frac{2gAB}{A+B}$$

Hence show that the acceleration increases as the tension diminishes and *vice versa*.

APPLIED MATHEMATICS II. (Pass Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Show how to find the straight line of quickest descent to a given plane curve from any point in its own plane.
- A radius is drawn from the centre of a vertical circle to the circumference ; in what direction must it be drawn if the time that a particle takes to slide down it is the same as the time a particle would take to fall through the whole length of the vertical diameter.
- II. A heavy particle is projected with given velocity at a given angle to the horizon. Find the greatest height the body

will attain above the horizontal plane through the point of projection, and the horizontal range.

Show that if a particle fall from any height upon a plane inclined at an angle 30° to the horizon, then if the elasticity of the particle be perfect, the time of falling is half the "time of flight" of the first bound upon the plane.

- III. In a conical pendulum if h be the vertical distance between the bob and point of suspension, prove that the time of vibration is

$$2\pi \sqrt{\frac{h}{g}}$$

- IV. A shell of mass M is moving with velocity V . An internal explosion generates an amount E of energy and thereby breaks the shell into two fragments whose masses are in the ratio m_1 to m_2 . The fragments continue to move in the original line of motion of the shell: show that their velocities are

$$V + \sqrt{\frac{2m_2E}{m_1M}}, \quad V - \sqrt{\frac{2m_1E}{m_2M}}$$

- V. What is the fundamental property of a fluid? Hence prove that in a fluid at rest the pressure at any point is the same in all directions.

Fluid of given density is poured into a U-shaped tube of uniform section and stands at the same height in the two branches of the tube. Unequal amounts of another fluid, of less density than the first, and which does not mix with it, are then introduced into the two branches above the former fluid. Find the position of equilibrium of the whole. None of the surfaces of separation are supposed to be in the curved part of the tube.

- VI. Find the centre of pressure of a rectangle immersed in a liquid with one side in the surface.

Find the centre of pressure when one corner of a square is in the surface and the diagonal through that corner is vertical.

- VII. Prove from the theory of surface tension that the rise of a liquid in a circular capillary tube is twice that between two plates, if the diameter of the tube is equal to the distance between the plates.

What would happen if the rise in a capillary tube became very great?

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- VIII. A hollow sphere of thin metal is filled with water through a small hole in the top. If the radius of the sphere be one foot, find the surface tension per inch at any point of the sphere.

DIFFERENTIAL CALCULUS. (Honour Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Find from first principles the differential co-efficients with respect to x of x^n when n is any real quantity, of $\sec x$, and of a^x .
- II. If $y = \left(x + \sqrt{1+x^2}\right)^m + \left(x + \sqrt{1+x^2}\right)^{-m}$ prove that

$$x \frac{dy}{dx} + (1+x^2) \frac{d^2y}{dx^2} = m^2y$$

and hence that

$$(1+x^2) \frac{d^{n+2}y}{dx^{n+2}} + (2n+1)x \frac{d^{n+1}y}{dx^{n+1}} + (n^2-m^2) \frac{d^ny}{dx^n} = 0.$$

- III. What indeterminate forms of expressions are there ?

Evaluate the expressions—

$$\frac{\operatorname{cosec}x - \cot x}{x} \text{ when } x = 0.$$

$$\frac{x \sin(\sin x) - \sin^2 x}{x^6} \text{ when } x = 0.$$

$$(\log x)^{\log(1-x)} \text{ when } x = 0.$$

- IV. If one variable quantity be expressed as a function of a second variable quantity, how would you proceed in general to find for what values of the second the first is a maximum or minimum ?

The resistance to a steamer's motion in still water varies as the n^{th} power of the velocity. Find the rate at which the steamer must be propelled against a tide running at a knots an hour, so as to consume the least amount of fuel in a given journey. Take the amount of fuel consumed in an hour as proportional to the resistance.

V. What is a "Partial Differential Co-efficient?" Give some simple geometrical or physical example.

If $c^2z^2 = a^2x^2 + b^2y^2$ find the value of

$$\frac{\delta^2z}{\delta x^2} + \frac{\delta^2z}{\delta y^2}$$

VI. Show that the equation to the tangent at the point x, y , of the curve $\phi(xy) = 0$ is

$$(\xi - x) \frac{\delta\phi}{\delta x} + (\eta - y) \frac{\delta\phi}{\delta y} = 0.$$

Hence find the equation to the tangent at any point (x, y) on the curve $x^{\frac{2}{3}} + y^{\frac{2}{3}} = a^{\frac{2}{3}}$.

Show that if $x = -8y$ the tangent makes, with the axis of x , an angle $\tan^{-1} \frac{1}{2}$.

VII. Prove the formula $\rho = \frac{ds}{d\psi}$.

If the equation of a curve be given in the form $x = 2c(\sec\psi - 1)$, show that $\rho = 2c \tan\psi \cdot \sec^2\psi$.

VIII. Prove the rule for finding the asymptotes of a curve.

Find the asymptotes of the curve

$$x^2y = 2x^3 - x - y^2.$$

IX. Show that if there be a multiple point at the point (xy) of the curve $\phi(xy) = 0$ then

$$\frac{\delta\phi}{\delta x} = 0 \text{ and } \frac{\delta\phi}{\delta y} = 0$$

and find the conditions that the point should be (1) a double point, (2) a cusp, (3) a conjugate point.

INTEGRAL CALCULUS. (Honour Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

I. Explain the process of integration by substitution, showing how the proper limits in the new integral are determined.

II. Integrate the following—

$$\int \frac{x^{n-1} dx}{a + bx^n}; \int \tan \theta d\theta; \int \frac{dx}{\sqrt{e^{2x} - 1}}$$

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III. What is meant by "integration by successive reduction?"
Show that

$$\int \frac{dx}{x^m \sqrt{a+bx^2}} = \frac{-\sqrt{a+bx^2}}{(m-1)ax^{m-1}} - \frac{m-2}{m-1} \cdot \frac{b}{a} \cdot \int \frac{dx}{x^{m-2} \sqrt{a+bx^2}}$$

and in this way find the value of

$$\int \frac{dx}{x^3 \sqrt{a^2-x^2}}$$

IV. Show that the length of the arc of the parabola $y^2=4ax$ measured from the vertex to the point whose coordinate are (x, y) is

$$\frac{y \sqrt{y^2+4a^2}}{4a} + a \log \left\{ \frac{y + \sqrt{y^2+4a^2}}{2a} \right\}$$

V. Show that if a curve be expressed by means of the equation

$$y = \log(1+t^2), \quad x = 2 \tan^{-1} t - t$$

then t is the length of arc of the curve from the origin to the point xy .

VII. Show that the whole area between the curve $y(a^2+x^2) = ma^3$, and the axis of x is $m\pi a^2$.

VII. Prove that $\frac{d}{da} \int f(x, a) dx = \int \frac{d}{da} \cdot f(x, a) dx$

Show that

$$\int x^m \log x dx = \frac{x^{m+1}}{m+1} \left\{ \log x - \frac{1}{m+1} \right\}$$

And that

$$\int \frac{dx}{(x^2+a)^2} = \frac{1}{2a^{\frac{3}{2}}} \tan^{-1} \frac{x}{\sqrt{a}} + \frac{1}{2a} \frac{x}{x^2+a}$$

DEDUCTIVE AND INDUCTIVE LOGIC. (Pass Paper.)

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

I. What is meant by the denotation, and what by the connotation of a term? Show that the denotation and connota-

- tion of a term are not absolutely fixed. Give any instance of a term whose denotation and connotation do not vary inversely, and any instance of a term with no connotation.
- II. Write down divisions of propositions based respectively on their Relation, Quality, Quantity, and Modality. Distinguish a verbal from a real proposition.
- III. Enumerate and describe the various forms of immediate inference.
- IV. Prove that in the third Figure :—
(1.) The minor premiss must be affirmative.
(3.) The conclusion must be particular.
- V. Give concrete examples of the fallacies known respectively as *Ignoratio elenchi* and *Petitio principii*.
- VI. Enumerate and describe very briefly the processes subsidiary to Induction.
- VII. Upon what two laws is all Induction based, and by what mental process do men assure themselves of their truth?
- VIII. Explain and illustrate the Double Method of Agreement and the Method of Concomitant Variations.
- IX. Why in drawing an analogical inference must we have no evidence that there in any causal connection between the new property and any of the known points of resemblance or difference.
- X. Classify fallacies of Mis-observation.
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LATIN (Pass Paper).

D. J. BYARD, ESQ., B.A.

Time—Three hours.

I. Translate (Juv. Sat. i., ll. 95-109)—

- (a) Nunc sportula primo
 Limine parva sedet, turbae rapienda togatae.
 Ille tamen faciem prius inspicit et trepidat, ne
 Suppositus venias ac falso nomine poscas.
 Agnitus accipies ; jubet a praecone vocari
 Ipsos Trojugenas ; nam vexant limen et ipsi
 Nobiscum. Da Praetori, da deinde Tribuno,
 Sed libertinus prior est. "Prior," inquit, "ego adsum :
 Cur timeam dubitemve locum defendere quamvis
 Natus ad Euphraten, molles quod in aure fenestrae
 Arguerint licet ipse negem : sed quinque tabernae
 Quadringenta parant. Quid confert purpura major
 Optandum, si Laurenti custodit in agro
 Conductas Corvinus oves ? ego possideo plus
 Pallante et Licinis."

Write notes on *Trojugenas* and *tabernae*.

Translate (Juv., Sat. iii., ll. 67-78)—

- (b) Rusticus ille tuus sumit trechedipna, Quirine,
 Et ceromatico fert niceteria collo.
 Hic alta Sicyone, ast hic Amydone relictæ,
 Hic Andro, ille Samo, hic Trallibus aut Alabandis,
 Esquilias dictumque petunt a Vimine collem,
 Viscera magnarum domuum dominique futuri.
 Ingenium velox, audacia perdita, sermo
 Promptus et Isaeo torrentior. Ede quid illum
 Esse putes ? quem vis hominem secum attulit ad nos :
 Grammaticus, rhetor, geometres, pictor, aliptes,
 Augur, schoenobates, medicus, magus : omnia novit.
 Graeculus esuriens in caelum jusseris ibit.

Translate (Juv. Sat. x., ll. 114-132)—

- (c) Eloquium ac famam Demosthenis aut Ciceronis
 Incipit optare et totis Quinquatribus optat,
 Quisquis adhuc uno partam colit asse Minervam.

Arcem sequitur custos angustae vernula capsae.
Eloquio sed uterque perit orator : utrumque
Largus et exundans leto dedit ingenii fons.
Ingenio manus est et cervix caesa ; nec unquam
Sanguine causidici maduerunt rostra pusilli.
“ O fortunatam natam me Consule Romam.”

Antoni gladios potuit contemnere, si sic
Omnia dixisset. Ridenda poemata malo,
Quam te conspicuae, divina Phillippica, famae,
Volveris a prima quae proxima. Saevus et illum
Exitus eripuit, quem mirabantur Athenae
Torrentem et pleni moderantem fraena theatri.
Dis ille adversis genitus fatoque sinistro,
Quem pater, ardentis massae fuligine lippus,
A carbone et forcipibus gladiosque parante
Incude et luteo Vulcano ad rhetora misit.

Write a note on *Quinquatribus*.

- (a) Nuntiata ea Tiberium laetitia curaue adfecere : gaudebat oppressam seditionem * sed quod largiendis pecuniis et missione festinata favorem militum quaesivisset, bellica quoque Germanici gloria angebatur. Rettulit tamen ad senatum de rebus gestis, multaue de virtute ejus memoravit, magis in speciem verbis adornata quam ut penitus sentire crederetur. Paucioribus Drusum et finem Illyrici motus laudavit, sed intentior et fida oratione. Cunctaque quae Germanicus indulserat, servavit etiam apud Pannonicos exercitus.

Write a note on the mood of *quaesivisset*.

Translate (Tac. Ann., Bk. i., 73)—

- (b) Haud pigebit referre in Falanio et Rubrio, modicis equitibus Romanis, praetemptata crimina, ut quibus initiis, quanta Tiberii arte gravissimum exitium inrepperit, dein repressum sit, postremo arserit cunctaque corripuerit, noscatur. Falanio objiciebat accusator, quod inter cultores Augusti, qui per omnes domos in modum collegiorum habebantur, Cassium quandam mimum infamem adscivisset, quodque venditis hortis statuam Augusti simul mancipasset. Rubrio crimini dabatur violatum perjurio numen Augusti. Quae ubi Tiberio notuere, scripsit consulibus non ideo decretum patri suo coelum, ut in perniciem civium is honor verteretur.

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- III. Write a short account of the life of Juvenal or of Tacitus.
IV. Describe briefly the campaign of Germanicus against the Germans.

For Latin Prose—

Pyrrhus resolved to attack Curius before his colleague joined him, and he planned an attack upon his camp by night. He set out by torchlight with the flower of his soldiers and the best of his elephants ; but the way was long and the country overgrown with wood and intersected with steep ravines, so that his progress was slow ; and at last the lights were burnt out and the men were continually missing their way. Day broke before they reached their destination ; but still the enemy were not aware of their approach till they had surmounted the heights above the Roman camp and were descending to attack it from the vantage-ground.

LATIN (Honour Paper).

PROFESSOR BOULGER, M.A.. D.LITT.

Time—Three hours.

I. Translate—

Hic Priamus, quamquam in media iam morte tenetur,
Non tamen abstinuit, nec voci iraeque pepercit :
At tibi pro scelere, exclamat, pro talibus ausis,
Di, si qua est caelo pietas, quae talia curet,
Persolvant grates dignas et praemia reddant
Debita, qui nati coram me cernere letum
Fecisti et patrios foedasti funere voltus.
At non ille, satum quo te mentiris, Achilles
Talis in hoste fuit Priamo ; sed iura fidemque
Supplicis erubuit, corpusque exsangue sepulchro
Reddidit Hectoreum, meque in mea regna remisit.

II. Translate—

Tum Juno omnipotens, longum miserata dolorem
Difficilesque obitus, Irim demisit Olympo,
Quae luctantem animam nexosque resolveret artus.
Nam quia nec fato, merita nec morte peribat,
Sed misera ante diem, subitoque accensa furore,

Nondum illi flavum Proserpina vertice crinem
 Abstulerat Stygioque caput damnaverat Orco.
 Ergo Iris croceis per caelum roscida pennis,
 Mille trahens varios adverso sole colores,
 Devolat, et supra caput adstitit : Hunc ego Diti
 Sacrum iussa fero, teque isto corpore solvo.
 Sic ait, et dextra crinem secat : omnis et una
 Dilapsus calor, atque in ventos vita recessit.

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III. Translate—

Ibant obscuri sola sub nocte per umbram,
 Perque domos Ditis vacuas et inania regna :
 Quale per incertam lunam sub luce maligna
 Est iter in silvis, ubi caelum condidit umbra
 Juppiter, et rebus nox abstulit atra colorem.
 Vestibulum ante ipsum primisque in faucibus Orci
 Luctus et ultrices posuere cubilia Curae ;
 Pallantesque habitant Morbi, tristisque Senectus,
 Et Metus, et malesuada Fames, ac turpis Egestas,
 Terribiles visu formae, Letumque, Labosque ;
 Tum consanguineus Leti Sopor, et mala mentis
 Gaudia mortiferumque adverso in limine Bellum
 Ferreique Eumenidum thalami et Discordia demens,
 Vipereum crinem vittis innexa cruentis.

IV. "The descriptive faculty of Virgil is quite unlike that of Homer, but yet it has great excellences of its own." Illustrate this remark by reference to passages in the Aeneid.

V. Translate—

Sed aestate iam adulta legionum aliae itinere terrestri in hibernacula remissae ; plures Caesar classi impositas per flumen Amisiam Oceano invexit. ac primo placidum aequor mille navium remis strepere aut velis impelli : mox atro nubium globo effusa grando, simul variis undique procellis incerti fluctus prospectum adimere, regimen inpedire ; milesque pavidus et casuum maris ignarus dum turbat nautas vel intempestive iuvat, officia prudentium corrumpibat. omne dehinc caelum et mare omne in austrum cessit, qui tumidis Germaniae terris, profundis amnibus, immenso nubium tractu validus, et rigore vicini septentrionis horridior, rapuit disiecitque naves in aperta Oceani aut insulas saxis abruptis vel per occulta vada infestas. quibus paulum aegreque vitatis, postquam mutabat aestus eodemque quo ventus ferebat, non adhaerere ancoris, non exhaurire inrum-

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pentes undas poterant : equi, iumenta, sarcinae, etiam arma praecipitantur, quo levarentur alvei manantes per latera, et fluctu superurgente.

VI. Translate—

Funus sine imaginibus et pompa, per laudes ac memoriam virtutum eius celebre fuit. et erant qui formam, aetatem, genus mortis, ob propinquitatem etiam locorum in quibus interiit, magni Alexandri fatis adaequarent. nam utrumque corpore decoro, genere insigni, haud multum triginta annos egressum, suorum insidiis externas inter gentes occidisse : sed hunc mitem erga amicos, modicum voluptatum, uno matrimonio, certis liberis egisse, neque minus proeliatorem, etiamsi temeritas aferit praepeditusque sit percussas tot victoriis Germanias servitio premere, quodsi solus arbiter rerum, si iure et nomine regio fuisset, tanto promptius adsecuturum gloriam militiae, quantum clementia, temperantia, ceteris bonis artibus praestitisset.

VII. Translate—

Sed mihi haec ac talia audienti in incerto iudicium est, fatone res mortalium et necessitate immutabili an forte volvantur. quippe sapientissimos veterum, quique sectam eorum aemulantur, diversos reperies, ac multis insitam opinionem non initia nostri, non finem, non denique homines dis curae ; ideo creberrime tristia in bonos, laeta apud deteriores esse. contra alii fatum quidem congruere rebus putant, sed non e vagis stellis, verum apud principia et nexus naturalium causarum ; ac tamen electionem vitae nobis relinquunt, quam ubi elegeris, certum imminentium ordinem.

VIII. Translate into Latin Prose—

Towards the close of the day, he felt that his end was approaching, and calling his children round his bedside, he said to them, "At last, what I have so long hoped for has arrived, and the soul, freed from the trammels of mortality, is about to go into the presence of that God of whom it is itself a sort of emanation. Now that life is done, I could wish I had made better use of it ; but, as that cannot be, I trust that you will not only imitate my example, but will far exceed the humble efforts I have made in the cause of truth. My only regret is that, by my leaving you, you will miss my presence to help you on this road of trial until you have reached the goal." Shortly afterwards he became insensible, and soon expired.

GREEK (Pass Paper).

D. J. BYARD, Esq., B.A.

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Time—Three hours.

I. Translate—Hom. Od., Bk. xi., ll. 582-592—

- (a) Καὶ μὲν Τάνταλον εἰσεῖδον χαλέπ' ἄλγε' ἔχοντα,
 Ἐσταστ' ἐν λίμνῃ· ἣ δὲ προσέπλαξε γενεῖω
 Στεῦτο δὲ διψῶν, πῖεῖν δ' οὐκ εἶχεν ἐλέσθαι·
 Ὅσοσάκι γὰρ κύψει ὁ γέρων πῖεῖν μενεαίνων,
 Τοσσάχ' ὕδωρ ἀπολέσκειτ' ἀναβροχέν, ἀμφὶ δὲ ποσσὶν
 Γαῖα μελαινα φάνεσκε, καταζήνασκε δὲ δαίμων.
 Δένδρια δ' ὑψιπέτηλα κατὰ κρήθην χέε καρπὸν,
 Ὅγχυαι καὶ βροαὶ καὶ μηλῆαι ἀγλαόκαρποι,
 Συκέαι τε γλυκεραὶ καὶ ἐλαῖαι τηλεθώσαι.
 Τῶν ὀπτό' ἰθύσαι ὁ γέρων ἐπὶ χερσὶ μάσασθαι,
 Τὰς δ' ἄνεμος ρίπτασκε ποτὶ νέφεα σκιόεντα.

Parse ἀναβροχέν.

Hom. Od. xii., 222-233—

- (b) Ὡς ἐφάμην, οἱ δ' ὦκα ἐμοῖς ἐπέεσσι πίθοντο,
 Σκύλλην δ' οὐκέτ' ἐμυθεόμην, ἄπρηκτον ἀνίην,
 Μὴ πῶς μοι δείσαντες ἀπολλήξειαν ἑταῖροι
 Εἰρεσίης, ἐντὸς δὲ πυκάζουεν σφέας ἀντούς.
 Καὶ τότε δὴ Κίρκης μὲν ἐφημοσύνῃς ἀλεγεινῆς
 Λανθανόμεν, ἐπεὶ οὐ τί μ' ἀνώγει θωρήσσεσθαι.
 Αὐτὰρ ἐγὼ καταδὺς κλυτὰ τεύχεα, καὶ δύο δοῦρε
 Μάκρ' ἐν χερσὶν ἑλὼν, εἰς ἴκρια νηὸς ἔβαινον
 Πρώρης· ἐνθεν γάρ μιν ἐδέγμην πρῶτα φανεῖσθαι
 Σκύλλην πετραίην, ἣ μοι φέρε πῆμ' ἐτάροισιν.
 Οὐδέ πη ἀθρήσαι δυνάμην· ἕκαμον δέ μοι ὅσσε
 Πάντη παπταίνοντι πρὸς ἡεροειδέα πέτρην.

Parse δοῦρε and ἐδέγμην.

II. Translate—Protagoras xv.—

- (a) Ἐπειδὴν δὲ ἐκ διδασκάλων ἀπαλλαγῶσι, ἡ πόλις αὖ τοῦς
 τε νόμους ἀναγκάζει μανθάνειν καὶ κατὰ τούτους ζῆν κατὰ
 παράδειγμα, ἵνα μὴ αὐτοὶ ἐφ' αὐτῶν εἰκῆ πράττωσιν, ἀλλ'
 ἀτεχνῶς ὥσπερ οἱ γραμματισταὶ τοῖς μῆτω δεινοῖς γράφειν
 τῶν παίδων ὑπογράφαντες γραμμὰς τῇ γραφίδι οὕτω τὸ
 γραμματεῖον διδάσκει καὶ ἀναγκάζουσι γράφειν κατὰ τὴν
 ὑφήγησιν τῶν γραμμῶν, ὡς δὲ καὶ ἡ πόλις νόμους ὑπογ-
 ράψασα, ἀγαθῶν καὶ παλαιῶν νομοθετῶν εὐρήματα, κατὰ
 τούτους ἀναγκάζει καὶ ἄρχειν καὶ ἄρχεσθαι, ὅς δ' ἂν ἐκτὸς
 βαίνει τούτων, κολάζει· καὶ ὄνομα τῇ κολάσει ταύτῃ καὶ

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παρ' ὑμῖν καὶ ἄλλοι πολλοῦ, ὡς εὐθινοῦσης τῆς δίκης, εὐθύναι.

Protagoras xxxix.—

- (b) Ἄλλὰ μὴν, ἦν δ' ἐγὼ, ἐναντίον ἀνδρεία δειλία. Ἐφη. Οὐκοῦν ἢ τῶν δεινῶν καὶ μὴ δεινῶν σοφία ἐναντία τῆς τούτων ἀμαθία ἐστὶ; καὶ ἐνταῦθα ἔτι ἐπένευσεν. Ἡ δὲ τούτων ἀμαθία δειλία; πάνν μόνις ἐνταῦθα ἐπένευσεν. Ἡ σοφία ἄρα τῶν δεινῶν καὶ μὴ δεινῶν ἀνδρεία ἐστίν, ἐναντία οὐσα τῇ τούτων ἀμαθία; Οὐκέτι ἐνταῦθα οὐτ' ἐπένευσαι ἠθέλησεν ἐσίγα τε. Καὶ ἐγὼ εἶπον· Τί δὴ, ὦ Πρωταγόρα, οὔτε σὺ φησὶ ἀ ἐρωτῶ οὔτε ἀπόφης; Αὐτός, ἔφη, πέρανον. Ἐν γε, ἔφη, ἐγὼ, μόνον ἐρόμενος ἔτι σε, εἴ σοι ὡσπερ τὸ πρῶτον ἔτι δοκῶσιν εἶναι τινες ἀνθρωποὶ ἀμαθέστατοι μὲν, ἀνδρειότατοι δέ. Φιλονεικεῖν μοι, ἔφη, δοκεῖς, ὦ Σώκратες, τὸ ἐμὲ εἶναι τὸν ἀποκρινόμενον. χαρισθῆναι οὖν σοι, καὶ λέγω, ὅτι ἐκ τῶν ὁμολογημένων ἀδύνατόν μοι δοκεῖ εἶναι.

Protagoras vii.—

- (c) Τοῦτον τὸν χόρον μάλιστα ἔγωγε ἰδὼν ἦσθην, ὡς καλῶς εὐλαβοῦντο μηδέποτε ἐμποδῶν ἐν τῷ ἐμπροσθεν εἶναι Πρωταγόρου, ἀλλ' ἐπειδὴ αὐτὸς ἀναστρέφοι καὶ οἱ μέτ' ἐκείνου, εὖ πως καὶ ἐν κόσμῳ πεπεισχύζοντο οἱ τοιοῦτοι οἱ ἐπήκοοι ἔνθεν καὶ ἔνθεν, καὶ ἐν κύκλῳ περιμόντες ἀεὶ εἰς τὸ ὀπισθεν καθίσταντο κάλλιστα.

III. Translate into Greek Prose—

Solon. I would like to put to you a few questions; you will answer them, I am sure, easily and affably. *Pisistratus*, have you not felt yourself the happier when you have made a large offering to the gods?

Pisistratus.—Certainly. I have made many such offerings, and have always been the happier.

Solon.—Did they need your sacrifice?

Pisistratus.—Far from it. They need nothing from us mortals; but I was happy in the performance of what I felt to be my duty.

Solon.—Piously and reasonably said, my friend. The gods did not indeed want your sacrifice. Of course not; for they gave you everything. The Athenians do want something from you—the very thing in fact which you have taken from them. Believe me, you will be as happy in giving back to your fellow-citizens what you have taken

from them, as in offering to the gods what they have bestowed on you.

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IV. Mention some characteristics of the Epic Style of Poetry.

V. Explain and criticise the theory that virtue is knowledge.

VI. Comment on the following grammatical forms :—

βίηφιν. ποσσίν. ρίπτασκε. μάντης. νεφεληγερέτα.
ἠελίοιο.

GREEK (Honour Paper).

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

I. Translate—

Ἦ μὲν ἄρ' ὡς εἰποῦσ' ἀπέβη γλαυκῶπις Ἀθήνη,
Τυδείδης δ' ἐξαὔτις ἰὼν προμάχοισιν ἐμίχθη·
καὶ, πρὶν περ θυμῷ μεμαῶς Τρώεσσι μάχεσθαι,
δὴ τότε μιν τρὶς τόσσον ἔλεν μένος, ὥστε λέοντα,
ὄν ρά τε ποιμὴν ἀγρῷ ἐπ' εἰροπόκοις οἴεσιν
χραύσῃ μὲν τ' αὐλῆς ὑπεράλμενον οὐδὲ δαμάσση.
τοῦ μὲν τε σθένος ὄρσει, ἔπειτα δέ τ' οὐ προσαμύνει,
ἀλλὰ κατὰ σταθμοὺς δύεται, τὰ δ' ἔρῃμα φοβεῖται·
αἱ μὲν τ' ἀγχιστῖναι ἐπ' ἀλλήλησι κέχυνται,
αὐτὰρ ὁ ἐμμεμαῶς βαθέης ἐξάλλεται αὐλῆς·
ὡς μεμαῶς Τρώεσσι μίγη κρατερὸς Διομήδης.

Write an explanatory note on the line—

ἀλλὰ κατὰ σταθμοὺς δύεται, τὰ δ' ἔρῃμα φοβεῖται.

II. Translate—

Δᾶερ ἐμεῖο, κυνὸς κακομηχάνου, ὀκρυνέσσης,
ὡς μ' ὄφελ' ἤματι τῷ ὅτε με πρῶτον τέκε μήτηρ
οἴχεσθαι περιφέρουσα κακῇ ἀνέμοιο θύελλα
εἰς ὄρος ἢ εἰς κῦμα πολυφοῖσβοιο θαλάσσης,
ἔνθα με κύμ' ἀπόρσεε πάρος τάδε ἔργα γενέσθαι.
αὐτὰρ ἐπεὶ τάδε γ' ὠδε θεοὶ κακὰ τεκμήραντο,
ἀνδρὸς ἔπειτ' ὄφελλον ἀμείνονος εἶναι ἀκοίτις,
ὃς ἤδη νέμεσιν τε καὶ αἰσχεα πόλλ' ἀνθρώπων.
ταύτῃ δ' οὐτ' ἄρ' ἦν φρένες ἔμπεδοι οὐτ' ἄρ' ὀπίσσω
ἔσσονται· τῷ καὶ μιν ἐπαυρήσεσθαι οἶω.

Parse ἀπόρσεε. What is peculiar in the syntax of the clause in which it occurs?

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III. Translate—

Ἦμος δ' οὐτ' ἄρ πω ἦώς, ἔτι δ' ἀμφιλύκη νύξ,
τῆμος ἄρ' ἀμφὶ πυρὴν κριτὸς ἔγρετο λαὸς Ἀχαιῶν,
τύμβον δ' ἀμφ' αὐτὴν ἕνα ποίεον ἐξαγαγόντες
ἄκριτον ἐκ πεδίου, ποτὶ δ' αὐτὸν τείχος ἔδειμαν
πύργους θ' ὑψηλοὺς, εἰλαρ νηῶν τε καὶ αὐτῶν.
ἐν δ' αὐτοῖσι πύλας ἐνεποίεον εὖ ἀραρυίας,
ὄφρα δι' αὐτῶν ἱππηλασίη δόδος εἴη·
ἐκτοσθεν δὲ βαθείαι ἐπ' αὐτῷ τάφρον ὄρυξαν,
εὐρείαν μεγάλην, ἐν δὲ σκόλοπας κατέπηξαν.

Write a short note on the occurrence of hiatus in Homeric verse.

IV. State briefly the most important theories concerning the origin of the Iliad and Odyssey.

V. Translate—

Ξυμμίξαντες δὲ ἐπειδὴ τὰ σημεῖα ἑκατέροις ἦρθη, ἐναυμάχουν,
πολλοὺς μὲν ὀπίστας ἔχοντες ἀμφότεροι ἐπὶ τῶν καταστρωμά-
των, πολλοὺς δὲ τοξότας τε καὶ ἀκοντιστὰς τῷ παλαιῷ
τρόπῳ ἀπειρότερον ἔτι παρεσκευασμένοι. ἴν τε ἡ ναυμαχία
καρτερά, τῇ μὲν τέχνῃ οὐχ ὁμοίως, πεζομαχία δὲ τὸ πλεόν
προσφερέης οὕσα. ἐπειδὴ γὰρ προσβάλλοιεν ἀλλήλοισι, οὐ
ῥαδίως ἀπελυόντο ὑπὸ τε πλήθους καὶ ὄχλου τῶν νεῶν, καὶ
μᾶλλον τι πιστεύοντες τοῖς ἐπὶ τοῦ καταστρώματος ὀπίσταις
ἐς τὴν νίκην, οἱ καταστάντες ἐμάχοντο ἡσυχάζουσῶν τῶν νεῶν.
διέκπλοι δ' οὐκ ἦσαν, ἀλλὰ θυμῷ καὶ ῥώμῃ τὸ πλεόν ἐναυμά-
χουν ἢ ἐπιστήμῃ.

(a) ἐπειδὴ τὰ σημεῖα ἦρθη.

(b) ἐπειδὴ γὰρ προσβάλλοιεν.

Why is ἐπειδὴ used with the indicative in (a), and with the optative in (b) ?

VI. Translate—

οἱ μὲν γε νεωτεροποιοὶ καὶ ἐπινοῆσαι ὄξειδς καὶ ἐπιτελέσαι
ἔργῳ ὃ ἂν γνώσιν· ὑμεῖς δὲ τὰ ὑπάρχοντά τε σώζειν καὶ
ἐπιγνώναι μηδὲν καὶ ἔργῳ οὐδὲ τἀναγκαῖα ἐξικέσθαι.
αἰθῆς δὲ οἱ μὲν καὶ παρὰ δύναμιν τολμηταὶ καὶ παρὰ γνώμην
κινδυνευταὶ καὶ ἐπὶ τοῖς δεινοῖς εὐέλπιδες· τὸ δὲ ὑμέ-
τερον τῆς τε δυνάμεως ἐνδεᾶ πράξαι, τῆς τε γνώμης
μηδὲ τοῖς βεβαίοις πιστεῦσαι, τῶν τε δεινῶν μηδέποτε οἰεσθαι
ἀπολυθῆσεσθαι. καὶ μὴν καὶ ἄοκνοι πρὸς ὑμᾶς μελλητὰς καὶ
ἀποδημηταὶ πρὸς ἐνδημοτάτους. οἴονται γὰρ οἱ μὲν τῇ
ἀπουσίᾳ ἂν τι κτᾶσθαι, ὑμεῖς δὲ τῷ ἐπελθεῖν καὶ τὰ ἐτοῖμα ἂν

βλάβῃ. κρατούντες τε τῶν ἐχθρῶν ἐπὶ πλεῖστον ἐξέρχονται, καὶ νικώμενοι ἐπ' ἐλάχιστον ἀναπίπτουσιν. ἐτι δὲ τοῖς μὲν σώμασιν ἀλλοτριωτάτοις ὑπὲρ τῆς πόλεως χρώνται, τῇ γνώμῃ δὲ οἰκειοτάτῃ ἐς τὸ πράσσειν τι ὑπὲρ αὐτῆς. καὶ ἂ μὲν ἂν ἐπινοήσαντες μὴ ἐξέλθωσιν, οἰκεία στέρεσθαι ἤγουνται· ἂ δ' ἂν ἐπελθόντες κτήσωνται, ὀλίγα πρὸς τὰ μελλόντα τυχεῖν πράξαντες. ἢ δ' ἄρα καὶ του πείρα σφαλῶσιν, ἀντελπίσαντες ἄλλα ἐπλήρωσαν τὴν χρείαν.

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(a) ὃ ἂν γνώσιν. What is the force of ἂν with the subjunctive in this expression.

(b) ἐπιγνώναι μηδέν. Why μηδέν?

(c) ἢν δ' ἄρα του καὶ πείρα σφαλῶσιν. Explain the force of ἄρα and καί. What is peculiar in the use of the aorist ἐπλήρωσαν?

VII. Translate—

ἢν γὰρ ὁ Θεμιστοκλῆς βεβαιοτάτα δὴ φύσεως ἰσχὺν δηλώσας καὶ διαφερόντως τι ἐς αὐτὸ μᾶλλον ἑτέρου ἀξίους θαυμάσαι, οἰκεία γὰρ ξυνέσει, καὶ οὔτε προμαθῶν ἐς αὐτὴν οὐδὲν οὔτ' ἐπιμαθῶν, τῶν τε παραχρήμα δι' ἐλάχιστης βουλῆς κράτιστος γνώμων καὶ τῶν μελλόντων ἐπὶ πλεῖστον τοῦ γενησομένου ἄριστος εἰκαστής. καὶ ἂ μὲν μετὰ χεῖρας ἔχοι, καὶ ἐξηγήσασθαι οἶός τε· ὦν δὲ ἀπείρος εἴη, κρῖναι ἰκανῶς οὐκ ἀπύλλακτο. τό τε ἄμεινον ἢ χεῖρον ἐν τῷ ἀφανεί ἔτι προεώρα μάλιστα. καὶ τὸ ξύμπαν εἰπεῖν, φύσεως μὲν δυνάμει, μελέτης δὲ βραχύτητι, κράτιστος δὴ οὗτος αὐτοσχεδιάζειν τὰ δέοντα ἐγένετο.

Mention any acts of Themistokles which support this estimate of his character.

VIII. Translate into Greek prose—

Terrible, meanwhile, was the agony of contending feelings sustained by the infantry of both armies on the shore, while the action was evenly balanced: the native forces being ambitious of adding to their glory, and the invaders apprehensive of still heavier calamity. For, as the fortunes of the Athenians were staked upon their ships, their alarm for the issue was unparalleled, and the inequality of the ground interrupted their view of the engagement, and as the spectacle was near at hand, and they were not all looking to the same point at once, if some of them chanced to behold their friends victorious in any quarter, they would recover their spirits and begin to invoke the gods not to deprive them of safety; while those who had fixed their

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gaze upon the vanquished squadrons mingled lamentations with cries, and their minds were more deeply affected by their view of the engagement than those of the actual combatants.

MATHEMATICS I. ANALYTICAL GEOMETRY (Pass Paper).

PROFESSOR NANSON, M.A.

Time—Three hours.

- I. Find the equation to the straight line passing through two points whose co-ordinates are given.

Hence find the equation to a straight line in terms of the intercepts which it makes on the axes.

- II. Find the perpendicular distance of a given point from the straight line $ax + by + c = 0$.

Show that the locus of a point such that the product of the perpendiculars from it upon the two straight lines represented by $ax_2 + 2hxy + by^2 = 0$ is constant and equal to k^2 is

$$ax^2 + 2hxy + by^2 = k^2 \sqrt{(a-b)^2 + 4h^2}.$$

- III. Find the equation of a circle referred to any rectangular axes.

Find the general equation of a circle touching the axes.

- IV. Define the radical axis of two circles, and show that the radical axes of three circles, taken in pairs, meet in a point.

- V. Find the equation of the straight line passing through two given points on a parabola, and find the equation of the tangent at any point.

Find the locus of the point of intersection of two tangents which are such that the rectangle contained by the ordinates of the points of contact is constant.

- VI. Investigate the equation of a tangent to an ellipse in the form

$$x \cos a + y \sin a = \sqrt{a^2 \cos^2 a + b^2 \sin^2 a},$$

Show that the product of the perpendiculars from the foci upon any tangent is constant.

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- VII. If ϕ , ϕ' be the excentric angles of the extremities of a pair of conjugate diameters of an ellipse, prove that

$$\phi \sim \phi' = \frac{\pi}{2}$$

Find the locus of the middle point of the line joining the extremities of a pair of conjugate diameters of an ellipse.

- VIII. Find the polar equation of the straight line through two given points on a conic, and find the equation of the tangent at any point, the focus being the pole.

If a chord of a conic subtend a constant angle at the focus, show that it touches a second conic having the same form and directrix as the given conic.

- IX. If any chord of a conic be drawn through a fixed point O , it will be cut harmonically by the curve and the polar of O .

MATHEMATICS II. ANALYTICAL GEOMETRY

(Pass.)

PROFESSOR BRAGG, M.A.,

Time—Three hours.

- I. Show that the area of the triangle formed by the origin and two points (x_1, y_1) , (x_2, y_2) is

$$\frac{1}{2}(x_1 y_2 - x_2 y_1)$$

Hence show that if the areas are changed in any way by using the formulæ $x = l_1 x' + m_1 y'$, $y = l_2 x' + m_2 y'$ then $l_1 m_2 - l_2 m_1 = 1$.

- II. ABCD is a parallelogram: through any point P are drawn HK parallel to one pair of sides and meeting the other sides in H and K, and LN, parallel to the second pair of sides, and cutting the other sides in L and N: Show that HL, KN meet on one diagonal and KL, HN on the other diagonal of the parallelogram.

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- III. Show that the equation to the normal at any point $x'y'$ of a parabola is

$$y - y' + \frac{y'}{2a}(x - x') = 0$$

If the normal to a parabola at one end B of the latus rectum be drawn meeting the parabola again in P, then the point where the tangents at B and P meet, and the other extremity of the latus rectum, lie on the same diameter of the parabola.

- IV. Find the typical equation of a series of confocal conics.
V. Show that the length of the normal at any point P of an ellipse is $\frac{bb'}{a}$ where b' is the length of the semi-diameter conjugate to CP.

Find the equation of the circle inscribed in a semi-ellipse and touching the axis minor.

- VI. Draw the loci represented by the following equations :
(i.) $y^2 - 2xy + x^2 - 2y - 2x + 5 = 0$
(ii.) $y^2 + xy - x^2 + 3x + 2y + 1 = 0$
(iii.) $x^2 - 4xy + 5y^2 - 18y + 6x + 18 = 0$

- VII. Explain the system of Trilinear Coordinates and show that every equation of the first degree will represent a straight line.

- VIII. Find the equations in trilinear coordinates of the lines drawn from the angular points of the triangle of reference to the middle points of the opposite sides. Show that they meet in a point, and find the coordinates of the point.

DIFFERENTIAL AND INTEGRAL CALCULUS

(Honour Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Define the differential co-efficient of a function : and deduce from your definition the differential co-efficients of

$$\tan^{-1} \frac{1}{x}, \log \cos x.$$

- II. Obtain equations to determine the maximum or minimum values of a function of two independent variables.

The sum of the three concurrent edges of a tetrahedron is given : show that the volume of the tetrahedron is a maximum when the three edges are equal to one another and perpendicular to one another.

- III. Prove that $\left(\frac{ds}{d\theta}\right)^2 = \left(\frac{dr}{d\theta}\right)^2 + r^2$.

The equation of a lemniscate is $r_1 r_2 = a^2$ where the distances of any point on it from its two foci are r_1, r_2 and the length of the line joining the two foci is $2a$.

Prove that

$$8r_2^2 \left(\frac{dr_1}{ds}\right)^2 = 8r_1^2 \left(\frac{dr_2}{ds}\right)^2 = 6a^2 - r_1^2 - r_2^2.$$

- IV. Explain what is meant by the intrinsic equation of a plane curve.

Prove that the equations

$$s = c \tan^2 \psi; \quad x = 2c (\sec \psi - 1); \quad y = c \{ \tan \psi \sec \psi - \log (\sec \psi + \tan \psi) \}$$

represent one and the same curve.

- V. Show that if ρ be the radius of curvature at any point of a curve and σ be the length of the arc of the evolute measured from a fixed point up to the point corresponding to the point on the original curve, $\rho + \sigma$ is constant.

The evolute of a given curve is constructed, and the evolute of that evolute and so on. The length of the arc of the n^{th} evolute so found, measured from a fixed point on it up to any other point, is s_n : the radius of curvature of the original curve at the corresponding point is ρ .

Prove that $\frac{d^{n-1}\rho}{d\psi^{n-1}} + s_n$ is constant : where ψ is the angle the tangent to the original curve makes with the axis of x .

- VI. Trace the curve

$$xy^2 + x^3 = 3ax^2 - 3a^2x \cos^2 a + a^3 \cos^4 a$$

finding its real asymptote and its real points of inflexion.

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VII. Evaluate $\int e^{ax} \cos (bx+c) dx$ and $\int \frac{x^2 dx}{(x+1)(x+2)(x+3)}$; and

shew that $\int_0^1 \frac{dx}{(1+x)^2(1-x)^2} = \frac{2}{3}$.

VIII. Find the formula for the length of the arc of a curve measured up to any point in it in the form

$$s = \frac{dp}{d\psi} + \int p d\psi.$$

Apply this formula to rectify the cardioid whose equation is $r = a(1 + \cos \theta)$.

IX. Investigate the formula for the area of a plane curve in the form $\frac{1}{2} \int (x dy - y dx)$.

Deduce a formula in terms of another variable t , when x and y are given in terms of t by the equations

$$x = \phi(t), y = \psi(t).$$

Find the area bounded by the circle $x = a \cos \theta$, $y = a \sin \theta$, and the hyperbola $x = b \cosh \theta$, $y = b \sinh \theta$ that area being taken which lies within the circle and on the convex side of the hyperbola, and b being taken less than a .

STATICS AND ATTRACTIONS (Honour Paper).

PROFESSOR NANSON, M.A.

Time—Three hours.

I. Enunciate and prove the parallelogram of forces.

Three forces meet at a point, and each force is opposite to the resultant of the other two. Prove that they are in equilibrium.

II. Investigate the conditions of equilibrium of a system of forces in one plane.

Find the locus of a point such that the algebraical sum of their moments about it of all the forces of a given system is constant.

III. If three forces maintain a rigid body in equilibrium, show that they must lie in the same plane and meet at a point or be parallel.

A heavy rod whose centre of gravity is not at its middle point rests inside a smooth hemispherical bowl. Find the position of equilibrium.

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IV. Prove that any system of forces is equivalent to a single resultant force and a couple, the axis of which is in the direction of the force.

Find the central axis of two forces which are at right angles.

V. Investigate formulæ for finding the centre of gravity of a plane area by double integration.

Find the centre of gravity of a quadrant of an ellipse.

VI. Investigate the equation of the common catenary.

If ρ_1 and ρ_2 be the radius of curvature at two points the tangents at which are at right angles, prove that $1/\rho_1 + 1/\rho_2 = 1/c$.

VII. Find the magnitude and direction of the attraction at any point of a fine uniform rod.

If a particle be attracted by the three sides of a triangle, show that it will be in equilibrium if it be placed at the centre of the circle inscribed in the triangle.

VIII. Find the attraction of a thick spherical shell of uniform density at any point within the inner boundary, between the boundaries, or without the outer boundary.

IX. Define potential, level surface, line of force, and show that at any point of a thin tube formed by lines of force the attraction varies inversely as the cross section.

Find the attraction of a homogeneous infinitely long right circular cylinder at an external point.

INTEGRAL CALCULUS AND DYNAMICS OF A PARTICLE (Honour Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

I. Show that
$$\int_0^{\pi} a \cos \theta e^{ax \cos \theta} d\theta = \int_0^{\pi} a^2 x \sin^2 \theta e^{ax \cos \theta} d\theta$$

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Hence if $y = \int_0^{\pi} e^{ax} \cos \theta \, d\theta$

Show that $x \frac{d^2y}{dx^2} + \frac{dy}{dx} - a^2xy = 0$.

II. Show that $\int_0^{\infty} e^{-kx} x^{n-1} dx = \frac{\Gamma(n)}{k^n}$

Hence (or otherwise) show that $\int_0^1 \left(\log \frac{1}{x}\right)^{n-1} dx = \Gamma(n)$.

III. Determine the period of vibrations of small range of a simple pendulum.

A bead sliding on a circular wire of radius a , whose plane is inclined at an angle α to the vertical, oscillates about the lowest point; determine the period of the vibrations when of small amplitude.

IV. Find the components of acceleration resolved along the tangent and normal of a point moving in a plane curve.

A point is moving in a parabola, and at a distance r from the focus its velocity is v ; show that its acceleration is compounded of $\frac{1}{4r} \frac{d}{dr} (v^2 r)$ parallel to the axis and

$\frac{1}{4} r \frac{d}{dr} \left(\frac{v^2}{r} \right)$ along the radius vector outwards.

V. If a particle be projected from a point P at right angles to the line joining P to a centre of force O , the equation to the orbit described will be

$$\frac{x^2}{a^2} + \frac{\mu y^2}{v^2} = 1$$

where O is origin, OP axis of x , a the length of OP , v the initial velocity, and μr the law of force.

If, when a particle is describing an ellipse about a centre of force at the centre, and is at the extremity of the major axis, the force becomes repulsive without otherwise changing its law, then the particle will proceed to describe a co-axial hyperbola.

VI. Enunciate Kepler's three laws, and apply them to deduce the forces under which planets move.

Given that the mean distance of the first satellite of Jupiter from the planet subtends at the sun an arc of $1' 52''$, that the periodic time of the satellite is 1d. 18h. 28m., and that the periodic time of Jupiter is $4,332\frac{1}{2}$ days, show that the mass of the sun is about 1,050 times the mass of Jupiter.

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VII. An inextensible chain of given mass has its ends fastened to two equal and similar elastic strings; the ends of these strings are fastened to a peg in the rim of a smooth circular disc, round which the whole chain thus formed is stretched, and rests in a horizontal plane. Show that the time of an oscillation is independent of the length of the heavy chain and of the size of the disc, provided only that the elastic strings remain stretched during the motion.

PROBLEMS (Honour Paper).

PROFESSOR NANSON, M.A.

Time—Three hours.

I. If $y = \sqrt{(a+bx+cx^2)}$ prove that

$$2(a+bx+cx^2) \frac{d^{n+2}y}{dx^{n+2}} + (2n+1)(b+2cx) \frac{d^{n+1}y}{dx^{n+1}} + 2(n^2-1)c \frac{d^ny}{dx^n} = 0.$$

II. Find the maximum value of $x^p y^q z^r$ where p, q, r are positive and $x^2/a^2 + y^2/b^2 + z^2/c^2 = 1$, and show that the value obtained really is a maximum.

III. Trace the curves

(i.) $(x^2 - a^2)y^2 = x^2(x^2 + a^2)$.

(ii.) $(x^2 + y^2)^2 = a^2x^2 + b^2y^2$.

IV. Find the values of

$$\int_0^{\infty} \frac{dx}{(x^2+a^2)(x^2+b^2)(x^2+c^2)}, \int_0^{\infty} \frac{dx}{(x^2+a^2)^3}.$$

V. Find the volume generated by the revolution about the axis of x of the curve

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$$\left(\frac{x}{a}\right)^{\frac{2}{2n+1}} + \left(\frac{y}{b}\right)^{\frac{2}{2n+1}} = 1.$$

n being zero or any positive integer.

- VI. In a funicular polygon the portions of the string between successive particles are equal, the lowest portion of the string is horizontal, and the particles lie in the circumference of a circle; find the ratio of the mass of each particle to that of either of the two lowest.

Hence shew that if a string hang in the form of an arc of a circle the density at any point is proportional to $\sec^2 \psi$, where ψ is the angle between the tangent at that point and the horizon.

- VII. Show that any system of forces acting on a rigid body will be in equilibrium if the sum of the moments of the forces about each of the six edges of a finite tetrahedron is zero.

- VIII. A weight W is drawn up a conical hill of height h and slope a and the path cuts all the lines of greatest slope at an angle β , shew that the work done on attaining the summit will be $Wh(1 + \mu \cot a \sec \beta)$, where μ is the co-efficient of friction.

- IX. The density at any point of an attracting sphere varies as the n^{th} power of the distance from the centre. Find the potential at any point internal or external.

- X. A particle moving under the influence of a central force varying partly as the inverse cube of the distance and partly as the inverse fifth power of the distance is projected from an apse with the velocity from infinity, show that the orbit is of one of the forms

$$r = a \cos k\theta, \quad r = a \cosh k\theta,$$

- XI. Two equal particles, P and Q , are connected by a fine string of length $2c$ which passes through a small hole in a smooth horizontal table. P is held on the table at a distance c from the hole and Q hangs at rest. If P be projected horizontally at right angles to the string with velocity v , show that the initial radius of curvature of P 's path is $2cv^2/(gc + v^2)$, and if Q be projected horizontally with velocity v , P being initially at rest, show that the initial radius of curvature of Q 's path is $2cv^2/(gc - v^2)$.

MENTAL AND MORAL SCIENCE. I. (Pass Paper).

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FRANCIS ANDERSON, ESQ., M.A.

Time—Three hours.

NOTE.—*Not more than eight questions to be attempted.*

I. *Locke: Essay on Human Understanding, Book II.*—

1. “We know nothing beyond our simple ideas.”
What exactly does Locke mean by *idea*?

2. How do we get the idea of *Power*? Is there any inconsistency in Locke’s position?

3. Illustrate the different ways in which the senses cooperate in perception.

4. How does Locke explain the fact of Memory?

5. State and criticise the distinction made between *self* and *consciousness*.

6. Discuss Locke’s treatment of the problem of the relation of *Quality* and *Substance*.

II. *Butler: Dissertation on Virtue and Sermons on Human Nature:*

1. What is meant by a Moral Faculty as a distinct power of mind?

2. On the assumption of such a faculty, what other faculties are implied in its exercise?

3. How does Butler reconcile “self-love” with “public good?”

4. “The radical defect of Butler’s whole scheme lies in its psychological basis?” Comment on this statement.

MENTAL AND MORAL SCIENCE II. (Pass Paper).

FRANCIS ANDERSON, ESQ., M.A.

Time—Three hours.

NOTE.—*Not more than eight questions to be attempted.*

I. *Schwegler’s History of Philosophy (Descartes to Kant.)*

1. “Descartes is the founder of a new epoch in Philosophy.” Comment on this statement.

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2. What is *Dualism*? How far does Spinoza transcend the Dualism of Descartes?

3. Compare the views of Locke and Leibnitz with regard to *Innate Ideas*.

4. "The Sensationalism of Locke necessarily implies Materialism." Illustrate this remark from the history of French Philosophy.

5. What does Hume mean by saying that the notion of Causality is due to *custom*? Criticise his argument.

6. How does Kant prove that Space and Time are *a priori* forms of perception?

II. *Stewart's Outlines of Moral Philosophy.*

1. How does Stewart distinguish between *Sensation* and *Perception*?

2. State his arguments—(a) On the question of the origin of existence; (b) on the question of future existence.

3. Comment on each of the following statements:—

(a) "We cannot properly be said to be conscious of our own existence."

(b) "The existence of a Deity does not seem to be an intuitive truth."

(c) "It is the *relative* rectitude of an action which determines the moral desert of the agent."

5. Compare Stewart's views with regard to Conscience with those held by Butler

MENTAL AND MORAL SCIENCE. I.

(Honour Paper).

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

I. Explain the origin and meaning of the terms *objective* and *subjective*.

II. Illustrate the fact that the phaenomenon of an external object is not presented immediately to the mind.

- III. All mental phaenomena are seen to divide themselves into three great classes. Enumerate, describe, and illustrate these classes. They are included under one universal phaenomenon which, according to Hamilton, admits of philosophical analysis. Give the results of his analysis, and his objections to Reid's analysis.
- IV. Enumerate the various hypotheses suggested to account for the Union of Mind and Matter. Give Hamilton's criticism of these hypotheses, and state your own view.
- V. On what grounds does Hamilton contend that the mind is never wholly unconscious of its own activity?
- VI. Show that Descartes' celebrated *Cogito, ergo sum*, as an inference, is either false or tautological.
- VII. "The return of the Stoics to the Socratic position after the divergence from it which we have seen gradually taking place in Platonic-Aristotelian thought is very noteworthy."
What was the Socratic position; how did the Stoics return to it; what was the Platonic-Aristotelian divergence; and why is the return noteworthy?
- VIII. Sketch the common and distinctive features in Judaism, Stoicism, and Christianity considered exclusively as ethical systems.
- IX. What is Hobbe's cardinal doctrine in moral psychology? Contrast it with the doctrine of Butler.
- X. Examine the effect on ethical thought in England of the Darwinian theory.

MENTAL AND MORAL SCIENCE. II.

(Honour Paper).

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Τὸ γὰρ ἀγαθὸν καὶ τὴν εὐδαιμονίαν οὐκ ἀλόγως εὐόκασιν ἐκ τῶν βίων ὑπολαμβάνειν· οἱ μὲν πολλοὶ καὶ φορτικώτατοι τὴν ἡδονήν, διὸ καὶ τὸν βίον ἀγαπῶσι τὸν ἀπολαυστικόν.

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τρεις γάρ εἰσι μάλιστα οἱ προύχοντες, ὃ τε τῶν εἰρημένος καὶ ὁ πολιτικός καὶ τρίτος ὁ θεωρητικός.

Examine these three theories of the Chief Good, and state which of the three, is adopted by Aristotle.

- II. What is the Platonic doctrine of the Idea of Good? Give the substance of Aristotle's criticism of that doctrine, and your own views on the justice of his criticism.
 - III. What indications are to be found, in the Ethics, of Aristotle's belief in a future state, and what do you consider to be his convictions on the question?
 - IV. How does Aristotle deal with the question—*πότερον μαθητὸν ἢ ἀρετή?*
 - V. Review Aristotle's analysis, so far as it is given in the Ethics, of the constitution of the soul.
 - VI. In what respects does the Utilitarianism of Mill differ from that of Bentham?
 - VII. The following objections have been urged against the Greatest Happiness Principle:—That happiness is unattainable; that men can do without happiness; that such a principle makes men cold and unsympathetic; that it is Expediency in opposition to Principle; that there is not time for calculating the effects of any line of conduct on the general happiness; that it furnishes means of cheating our conscience; and that it is a godless creed. How does Mill reply to all these objections?
 - VIII. What does Mill state to be the "ultimate sanction" of Utilitarianism?
 - IX. Reconcile the desire of Virtue for its own sake with the Utilitarian standard.
 - X. Indicate any points of weakness in Mill's Utilitarianism which occur to you.
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NOVEMBER, 1888.

ORDINARY EXAMINATION FOR THE DEGREE
OF B.SC.

FIRST YEAR.

LATIN }
GREEK } No Candidates.
FRENCH }

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MATHEMATICS }
ELEMENTARY PHYSICS } The same papers both in Pass
and Honours as set for the
First Year of the B.A. Degree.

BIOLOGY AND PHYSIOLOGY }
PRACTICAL BIOLOGY AND } The same papers as set
PHYSIOLOGY } for the First Year of
the M.B. Degree.

INORGANIC CHEMISTRY (Pass Paper).

PROFESSOR RENNIE, M.A., D.SC.

Time—Three hours.

[N.B.—Candidates are expected to write formulæ and equations
wherever possible.]

- I. A mixture of air and hydrochloric acid is passed over heated fragments of brick which have been soaked in a solution of cupric sulphate. The gases produced are passed into a hot solution of caustic potash. What are the products, their principal properties, and uses?
- II. Barium oxide (BaO) is moderately heated in a current of oxygen and the product is treated with dilute sulphuric acid. Write an account of the substances which are formed, and of their properties and uses.

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- III. How would you prepare sodium sulphite? A solution of this substance is boiled with sulphur; what compound is formed, what is its relation to sodium sulphate, how can you distinguish it from sodium sulphite, and what are some of its uses?
- IV. Write constitutional formulæ for nitric acid, sulphuric acid, orthophosphoric acid, pyrophosphoric acid, calcium hydroxide, and explain how far these formulæ are justified by actual facts.
- V. Describe briefly the preparation on the large scale of the following substances, and mention any of their uses:— Ferrous sulphate, zinc oxide, potassium permanganate, white lead.
- VI. What is meant by atomic heat? What influence has it had in determining the atomic weights of the elements?
- VII. A mixture of sulphuric acid, potassium bichromate, and alcohol is heated and the liquid finally evaporated till it begins to crystallize. What compound crystallizes out, what is its crystalline form, and how do you explain its formation? Name some other compounds of the same class, giving formulæ.
- VIII. Describe and explain the phenomena attending upon the electrolysis of (a) fused sodium chloride (b) a solution of sodium chloride (c) a solution of cupric sulphate.

GERMAN. (Pass Paper).

PROFESSOR MORRIS, M.A.

Time—Three hours.

- I. Translate the following passage from Schiller—

(a.) Sie kömmt — sie kömmt, des Mittags stolze Flotte,
Das Weltmeer wimmert unter ihr,
Mit Kettenklang und einem neuen Gotte
Und tausend Donnern naht sie dir —
Ein schwimmend Heer furchtbarer Citadellen
(Der Ocean sah ihresgleichen nie)
Unüberwindlich nennt man sie,
Zieht sie einher auf den erschrocknen Wellen;
Den stolzen Namen weiht
Der Schrecken, den sie um sich speit.
Mit majestätisch stillem Schritte
Trägt seine Last der zitternde Neptun;
Weltuntergang in ihrer Mitte,
Naht sie heran, und alle Stürme ruhn.

- (b.) Der fühlst ein menschliches Rühren,
Läßt schnell vor den Thron sie führen.
Und blicket sie lange verwundert an;
Drauf spricht er: „Es ist euch gelungen,
Ihr habt das Herz mir bezwungen;
Und die Treue, sie ist doch kein leerer Wahn;
So nehmet auch mich zum Genossen an!
Ich sei, gewährt mir die Bitte,
In eurem Bunde der dritte.“

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- (c.) Zum Werke, das wir einst bereiten,
Geziemt sich wohl ein ernstes Wort;
Wenn gute Reden sie begleiten,
Dann fließt die Arbeit munter fort.
So laßt uns jetzt mit Fleiß betrachten,
Was durch die schwache Kraft entspringt
Den schlechten Mann muß man verachten,
Der nie bedacht, was er vollbringt.
Das ist's ja, was den Menschen zieret;
Und dazu ward ihm der Verstand,
Daß er im innern Herzen spüret,
Was er erschafft mit seiner Hand.

II. Give an account of "The Cranes of Ibycus."

III. Translate the following from Goethe—

- (a.) Carl. Jarthausen ist ein Dorf und Schloß an der Jart,
gehört seit zweihundert Jahren den Herren von Berlichingen
erb- und eigenthümlich zu.
Götz. Kennst du den Herrn von Berlichingen?
Carl (sieht ihn starr an).
Götz (für sich). Er kennt wohl vor lauter Gelehrsamkeit
seinen Vater nicht.
- (b.) Weislingen. Ihr seid nicht wohl, gnädige Frau?
Adelheid. Das kann euch einerlei sein. Ihr verlaßt
uns, verlaßt uns auf immer. Was fragt ihr, ob wir leben
oder sterben!
Weislingen. Ihr verkennt mich.
Adelheid. Ich nehme euch, wie ihr euch gebt.
Weislingen. Das Ansehn trägt.
Adelheid. So seid ihr ein Chamäleon?
Weislingen. Wenn ihr mein Herz sehen könntet!
Adelheid. Schöne Sachen würden mir vor die Augen
kommen.
Weislingen. Gewiß! Ihr würdet euer Bild drin
finden.
Adelheid. In irgend einem Winkel bei den Porträten
ausgestorbener Familien.
- (c.) Götz. Ich will nichts weiter hören. Tret' einer auf und
zeuge! Hab ich wider den Kaiser, wider das Haus Oester-
reich nur einen Schritt gethan? Hab ich nicht von jeher
durch alle Handlungen bewiesen, daß ich besser als einer

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fühle, was Deutschland seinem Regenten schuldig ist? Und besonders was die Kleinen, die Ritter und Freien, ihrem Kaiser schuldig sind? Ich müßte ein Schurke sein, wenn ich mich könnte bereden lassen, das zu unterschreiben.

(d.) Elisabeth. Als die Nichtswürdigen Miltenberg verbrannten, sandte ihn sein Herr, ihnen Einhalt zu thun. Da fiel ein Trupp Bündischer auf sie los. — Georg! hätten sie sich alle gehalten wie er, sie hätten alle das gute Gewissen haben müssen. Viel wurden erstochen und Georg mit; er starb einen Reiterstod.

IV. Explain the following from Schiller—Das große Blatt, Thyrsußschwinger, Zwillingsspaar, Panzerhemd, Schwalm, dem curulischen Stuhl; and the following from Goethe's play—Hans Rüchenmeister, Pfannenflicker, Schröpfköpfe, Sanct. Zeit, Kubezahl, Nacht-Sms.

V. What is the gender of the following nouns—Auge, Gebirg, Gefahr, Graf, Hand, Mädchen, Name, That, Tugend, Wahrheit.

VI. What prepositions in German govern the accusative? When a preposition governs both the dative and the accusative, what is the difference in their use?

VII. Translate—

Voltaire machte einst dem Könige, wahrscheinlich im Auftrage des französischen Ministeriums, verschiedene Friedensvorschlage. Der Konig antwortete darauf im Jahre 1760 Folgendes:

„Die Friedensbedingungen, von denen Sie reden, finde ich so unsinnig, daf ich sie einem Tollhause zuschicken will; denn dort kann man eben recht darauf antworten. Ihre Minister konnen sich darauf verlassen, daf ich mich wie ein Verzweifelter vertheidigen und den Frieden nicht anders unterzeichnen werde, als auf Bedingungen, die sich mit der Ehre meiner Nation vertragen. Welche Logik! Sie sagen, ich mogte Cleve abtreten, weil es von Dummkopfen bewohnt sei! Was wurden Ihre Minister antworten, wenn Jemand die Champagne von ihnen verlangte, weil man zu sagen pflegt: 99 Schoppe und 1 Champagner machen 100 Stuck Vieh! Ach, weg mit solchen lacherlichen Projecten!“

VIII. Translate into German—

The proposed new method owes its origin to an epoch-making book published a few years back in Germany, and called “Der Dorf-Teich als Lebensgemeinschaft von Junge.” The author took a village pond as a centre and treated of the fishes, birds, and other natural objects that exist in the world in connection with a pond.

Such centres of instruction are proposed by the would-be reformers of natural science teaching. They would have twelve *Situationsbilder* (characteristic pictures) provided. The subjects which these pictures should represent are very varied. One would give a mountain scene with the animal and vegetable life suitable thereto; another meadow scenery with the typical animals and trees. A third would represent a room furnished with articles of common life—for instance, a lamp and some ordinary kinds of food. In a fourth we should see a garden with the typical domestic animals, &c. Others would give a glimpse of tropical and arctic scenery, and would serve to illustrate what was at the same time typical and peculiar to the subject.

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GERMAN HISTORY. (Pass Paper).

PROFESSOR MORRIS, M.A.

Time—Three hours.

- I. Who was Arminius? and who were his chief antagonists?
- II. What is the objection to the name Charlemagne? Discuss the matter fully.
- III. Write a short life of Frederick Barbarossa.
- IV. What were the objects of the Teutonic Order? How did it come to an end as a sovereign Power.
- V. What is meant by an Elector? How many Electors were there at different periods? What was the Golden Bull?
- VI. Who were John Zisca, Franz von Sickingen, Wallenstein, John Sobieski, Blucher?
- VII. What is meant by the term Mayor of the Palace, Palsgrave, diet, Landwehr, A. E. I. O. U.?
- VIII. Between whom were the Battles of Leipzig, Lützen, Malplaquet, Minden, Morgarten, Rossbach, fought? In what wars do they fall? and what was the result in each case?
- IX. Give some account of the Peaces of Westphalia, Ryswick, Passarowitz? What wars did they close?
- X. Write a history of the Pragmatic Sanction and its results.

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- XI. Write short accounts of Lessing and Jean Paul Richter.
- XII. Electorate of Brandenburg—Kingdom of Prussia—Empire of Germany. Trace the changes suggested by these names. Discuss the question why the Unity of Germany was so long postponed.
-

SECOND YEAR B.Sc.

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ELEMENTARY APPLIED MATHEMATICS } The same papers as set for
the Second Year of the
B.A. Degree.

PURE MATHEMATICS (Pass Paper).

R. W. CHAPMAN, M.A., B.C.E.

Time—Three hours.

I. Deduce the expansion for $\log_e m$ from that of $\log_e (1+x)$.
Prove that

$$\frac{e^4 - 1}{4e^2} = \left\{ 1 + \frac{1}{\underline{2}} + \frac{1}{\underline{4}} + \dots \right\} \left\{ 1 + \frac{1}{\underline{3}} + \frac{1}{\underline{5}} + \dots \right\}$$

II. Prove that the series

$$\frac{1}{1^a} + \frac{1}{2^a} + \frac{1}{3^a} + \dots$$

is convergent when a is > 1 , and is divergent when $a = 1$ or < 1 .

III. Show how to resolve into partial fractions any fraction of the form

$$\frac{ax^2 + bx + c}{(x-a)(x-\beta)(x-\gamma)}$$

Decompose into partial fractions

$$\frac{15x^2 + 39x - 3}{(x-1)^2(x+2)^2}$$

IV. If n be a prime number, and N prime to n , prove that $N^{n-1} - 1$ is a multiple of n .

Prove that $3^{2n} - 32n^2 + 24n - 1$ is divisible by 512.

V. Sum to n terms each of the following series:—

(1). $1 \cdot 4 + 2 \cdot 5 + 3 \cdot 6 + 4 \cdot 7 + \dots$

(2). $(a+1)(2a+1)(3a+1) + (2a+1)(3a+1)(4a+1) + (3a+1)(4a+1)(5a+1) + \dots$

VI. State and prove De Moivre's Theorem.

Determine all the values of

$$\left(\sqrt{3} + \sqrt{-1} \right)^{\frac{1}{5}}$$

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VII. Prove that

$$\phi = \tan\phi - \frac{1}{3}\tan^3\phi + \frac{1}{5}\tan^5\phi \dots\dots$$

Hence show that

$$\begin{aligned} \frac{1-x}{1+x} &= \frac{1}{3} \left(\frac{1-x}{1+x} \right)^3 + \frac{1}{5} \left(\frac{1-x}{1+x} \right)^5 - \dots\dots \\ &= 1 - x \frac{1}{3} (1-x^3) + \frac{1}{5} (1-x^5) - \dots\dots \end{aligned}$$

VIII. Show how to resolve $a^n - 2\cos\theta + \frac{1}{x^n}$ into factors.

PHYSICS I.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. An arrow is placed in front of a concave spherical mirror. Determine, geometrically, the position of the image—
1st, When the object is placed between the principal focus and the mirror; 2nd, When placed beyond the principal focus.
- II. Prove that, in the case of refraction at a single surface, the deviation of the ray increases with the angle of incidence.
If the angle of a prism be 60° and the refractive index $\sqrt{2}$, show that the minimum deviation is 30° .
- III. Describe the principal points which must be attended to in order to obtain a good spectrum.
What is meant by the dispersive power of a substance?
If the index of refraction of a prism made of the substance be 1.66 for the violet rays and 1.63 for the red rays, show that the dispersive power is $\frac{2}{43}$.
- IV. Compare the Astronomical and Galileo's Telescope, noting the chief advantages and disadvantages of each.
Prove that in either telescope the magnifying power = $\frac{\text{focal length of object glass}}{\text{focal length of eye-piece}}$
- V. Obtain a formula for finding the size of the real image of a double convex lens, having given the size of the object, its distance from the lenticular centre, and the principal focal length.

If a person sees best at a distance of 6 inches, what must be the focal length of spectacles which will enable him to see best at a distance of 10 inches ?

- VI. Describe the cause of the formation of Primary and Secondary Rainbows. Describe their relative positions, and explain why it is that the order of colours is reversed in the two bows.
- VII. Explain how simple harmonic vibration may be deduced from uniform motion in a circle, and hence prove that the time of vibration is independent of the amplitude.
- Liquid is poured into a U tube of uniform section, standing with its branches vertical, till the liquid altogether occupies a length l of the tube. If the liquid be caused to oscillate in the tube, show that the time of vibration is $2\pi\sqrt{\frac{l}{2g}}$
- VIII. State the laws which govern the transverse vibrations of strings, and show how they may be deduced from elementary principles.

PHYSICS II.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Describe, with practical details, a method of determining the value of H at any point on the earth's surface.
- II. Explain the meaning of—Electrical Potential, Capacity, Line of Force.
- Give a rough sketch of the lines of force in the following systems :—
- (1) Two small equal spheres placed near together, charged with electricities of opposite sign, the positive charge being numerically greater than the negative charge.
 - (2) Two small spheres placed near together and charged with equal quantities of electricity of the same sign.
 - (3) A charged electroscope.
- III. A condenser is formed of two large parallel plates of area S separated by a dielectric, whose thickness is t

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and specific inductive capacity k . Prove that the capacity of the condenser is $\frac{Sk}{4\pi t}$

IV. State Joule's Experimental Laws for the development of heat in an electric circuit, and show how Ohm's Law may be deduced from them.

A current of 5 ampères runs through a divided circuit of two branches; the resistances of the branches being 3 and 2 ohms respectively. Find the number of heat units developed in each branch during one minute. Assume that an ampère through one ohm develops therein .24 heat units per second.

V. Explain the term "electro-motive force." Is it really a force in the ordinary sense of the term?

Describe a method of comparing the electro-motive forces of two cells.

VI. There is a fault of contact between two neighbouring telegraph wires. How can the position of the fault be determined?

VII. In what way do Andrews' experiments upon "critical temperature" enable us to distinguish between a "true vapour" and a "true gas"?

Describe the behaviour of a mass of carbonic acid during the following operations:—(1) The temperature being 15°C, the pressure is gradually increased from 1 to 50 atmospheres; (2) at this pressure the temperature is gradually raised to 40°C; (3) the pressure is then slowly reduced to the atmospheric pressure.

VIII. Distinguish between the *apparent* and the *real* dilatation of a liquid. Describe a practicable method of determining the real co-efficient of dilatation of mercury.

IX. Prove that the elasticity of a gas is equal to its pressure.

CHEMISTRY (Pass Paper).

PROFESSOR MASSON, M.A., D.SC., AND PROFESSOR

RENNIE, M.A., D.SC.

Time—Three hours.

I. Explain the terms *primary*, *secondary*, and *tertiary* as applied to alcohols, and describe the effect of oxidizing agents on a member of each class.

- II. Give two general methods of preparing sulphonic acids (*e.g.*, ethylsulphonic acid) and a third method applicable to those of the aromatic series. What light is thrown by these reactions on the constitution of sulphites?
- III. Trimethylamine and methyl iodide are mixed in molecular proportions. After some time water is added, and the solution so obtained is shaken with excess of moist silver oxide and filtered. Of what does the filtrate consist? And what are its characteristics?
- IV. What are the chief reactions involved in the manufacture of ordinary soap? What do you understand by the term *saponification* in its wider sense?
- V. What changes do the following substances undergo when heated?—(a) calcium oxalate, (b) a mixture of calcium benzoate and calcium hydroxide, (c) citric acid.
- VI. What is *Fehling's solution*? Explain its use for the estimation of glucose. What preliminary change must be brought about (and how?) if it be desired to estimate cane-sugar by this reagent?
- VII. Explain by words and by means of constitutional formulæ the relation of the following compounds to one another:—glycolic acid, glycocoll, sarcosine, creatine.
- VIII. What are the essential characters of benzene that have led chemists to attribute to it a *ring* formula?
- IX. What is salicylic acid? How may it be prepared (a) from oil of wintergreen, (b) from phenol?

PRACTICAL CHEMISTRY (Pass Paper).

PROFESSOR RENNIE, M.A., D.Sc.

Time—Four hours.

Each student was given one of the two following sets of mixtures to analyse qualitatively:—

- I. (a) *Quinine sulphate* and *potassic bichromate*.
(b) A mixture of powdered metallic *antimony*, *bismuth*, and *manganese*.
- II. (a) *Strychnine*, *sodic acetate*, and *potassic bromide*.
(b) *Mercuric chloride*, *antimony*, and *cadmium sulphate*.

ORGANIC CHEMISTRY. (Honour Paper).

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

[*N.B.*—Candidates are expected to write formulæ and equations wherever possible.]

- I. What arguments can be drawn from the phenomena of organic chemistry as to the possibly non-elementary character of certain of the so-called elements? Explain your answer fully.
- II. Describe carefully how you would prepare *pure* aldehyde and *pure* acetone. Each of them is combined with hydrocyanic acid, and the product saponified. What substances are formed?
- III. You are supplied with sulphuric acid, oxalic acid, common salt, black oxide of manganese, caustic potash, and aqueous ammonia. Explain how to prepare urea from these materials. Describe also the preparation of *pure* urea from urine, and state the action upon it (*a*) of heat, (*b*) of water at 100° under pressure, (*c*) of nitrous acid, (*d*) of alkaline hypobromite.
- IV. Describe generally the preparation of the mercaptans, and state in what respects they differ from the alcohols.
- V. Explain fully by means of constitutional formulæ and chemical reactions the relationships between the lactic acids and propionic, acrylic, and propiolic acids.
- VI. Explain the reasoning by which chemists have arrived at the constitution of the three isomeric dibrombenzenes.
- VII. Describe the preparation of mesitylene, and explain the reasoning upon which its ordinary constitutional formula is based. Accepting the ordinary formula, how can the constitution of metaxylene be deduced?
- VIII. Write an account of the preparation of pararosaniline, and show clearly how its connection with triphenylmethane has been traced.
- IX. Describe what is known as the diazo-reaction, and show how by its means aniline can be converted into benzene, monobrombenzene, and phenol respectively.

PRACTICAL CHEMISTRY. (Honour Paper).

PROFESSOR RENNIE, M.A., D.Sc.

Time—10 a.m. to 5 p.m.

Ordinary Exam.
B.Sc.
Second Year.
November, 1888.

The following mixtures were given to each candidate for qualitative analysis :—

I. Strychnine, Urea, and Uric Acid.

II. Potassium iodide, silver nitrate, antimony arsenate, magnesium sulphate, and cobalt oxide.

BOTANY. No student selected this subject.

**PHYSIOLOGY, AND PRACTICAL
PHYSIOLOGY** } The same papers as
set for the Second
Year of the M.B.
Degree.

GEOLOGY. (FIRST PAPER.)

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

Time—Three hours.

- I. Describe the effects produced by the intrusion of a large mass of dolerite into (a) shale, (b) limestone, (c) coal, (d) sandstone.
- II. What inferences should you draw from the study of conglomerates as to ancient geographical conditions? Give instances from South Australian strata.
- III. How would you distinguish an igneous from a metamorphic rock? Name and describe the chief metamorphic rocks.
- IV. Describe a *stratigraphical inversion* and a *reversed fault*.
- V. Describe the nature of the evidences of upheaval of the land in South Australia during recent geological times.
- VI. What is a trilobite? What is a belemnite? What is a goniatite? Briefly state the distribution of each in time.
- VII. Compare the principal types of vegetation during Carboniferous and Jurassic epochs.
- VIII. Write a description of the accompanying geological section.

Ordinary Exam.
B. Sc.
Second Year.
November, 1888.

GEOLOGY. (SECOND PAPER.)

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

Time—Three hours.

- I. Name the rock specimens (1-10).
 - II. Name the genera of fossils (1-10), and state what geological periods they respectively characterize.
 - III. Draw up a table of the systems of stratified rocks of Australia. State their chief areas, lithological and economical properties, and their palæontological characteristics.
 - IV. Draw a horizontal section corresponding with the line indicated on the accompanying geological map.
 - V. Find the dip of the beds, coloured yellow on the map, question 4, assuming that the strata conform with the slope on which they rest.
-

THIRD YEAR B.S.C.

Ordinary Exam.,
B.Sc.
Third Year.
November, 1888

MATHEMATICS } The same papers both for Pass and
Honours as set for the Third Year of the
B.A. Degree.

LIGHT: (Honour Paper).

MR. E. F. J. LOVE, M.A.

Time—Three hours.

I. A train of waves, whose fronts are parallel to an opaque screen, in which an aperture of moderate dimensions is pierced, is moving towards the screen. Find the disturbance at any point of a semicircle lying beyond the screen, the centre of the semicircle coinciding with that of the aperture.

Explain the bearing of this investigation on the propagation of (a) sound; (b) light.

II. Investigate an expression for the intensity of light reflected from a thin of plate air between two plates of glass, and apply the result to explain the phenomena of Newton's rings.

III. Discuss, with full experimental details, the method of determining the wave-length of sodium light by means of the Diffraction grating.

IV. Describe the phenomenon of "anomalous dispersion," and give Kundt's rule for the relation of dispersion and absorption.

V. Prove that the intensity of the light reflected normally from the bounding surface of 2 media, whose relative index of

refraction is μ is given by $\left(\frac{\mu - 1}{\mu + 1}\right)^2$

Powdered glass immersed in a solution of common salt allows light of only one colour to pass, the colour varying with the strength of the solution. Explain this.

VII. Describe and account for the phenomenon of Internal Conical Refraction.

VII. Show that a plane-polarized ray is equivalent to two circularly

Ordinary Exam.,
B.Sc.
Third Year.
November, 1888.

polarized rays, the vibrations in which take place in opposite directions.

Apply this conclusion to explain the rotation of the plane of polarization of the light transmitted through quartz. How has the validity of this explanation been experimentally verified?

HEAT, SOUND, AND ELASTICITY (Honour Paper).

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Describe Carnot's engine; and explain how, for theoretical purposes, we may regard it as strictly reversible.
- II. What are the two principal ways of measuring (1) specific heat, (2) elasticity? Show that the ratio of the two specific heats to one another is equal to the ratio of the two elasticities to one another.
- III. Apply Carnot's cycle to determine the effect of increased pressure on the melting point of ice. Assuming that water expands 10 per cent. on freezing, and that the latent heat of fusion is 80, find the change of freezing point due to an increased pressure of one atmosphere.
- IV. Give a sketch of Fourier's solution of the following problem:—The temperature at every point of a body of infinite extent and uniform conductivity being known, it is required to determine the temperature of any given point P after a time t has elapsed.
- V. Show, on the Kinetic theory of gases, that the absolute temperature as measured by two gas thermometers are proportional, and if they agree at one temperature they agree throughout.
Find the average velocity of air particles at a pressure of 76 cm. of mercury and temperature 0° C., assuming that the mass of l.c.c. of air = $\cdot 001292$ grammes, the acceleration due to gravity = 981, and the density of mercury = 13.596.
- VI. Obtain the differential equation of the transverse vibrations of a string; and explain the reflection of a wave at a fixed end.
- VII. On what two constants do the elastic properties of an isotropic homogeneous solid depend? Give a short account of an experimental method of finding them.

ELECTRICITY AND MAGNETISM (Honour Paper).

Ordinary Exam.
B.Sc.
Third Year.
November, 1888.

MR. E. F. J. LOVE, M.A.

Time—Three hours.

- I. Obtain the "surface characteristic equation" of the potential, and apply it to determine the charge on a conductor when the normal force at any point of its surface is given.
- II. Discuss the theory and use of Thomson's "absolute" electrometer.
- III. Explain the method of Electric Images, and apply it to determine the potentials of two conducting spheres at a considerable distance apart when their charges are given. Connect the smaller of the two spheres to the earth, leaving the other insulated: what will the charges and potentials become?
- IV. Describe two methods of comparing the movement of a magnet with the strength of the field (not due to itself) in which it is placed: hence show, with experimental details, how the horizontal component of the earth's magnetic intensity is determined.
- V. Describe fully the experiments undertaken to verify Ohm's Law for electrolytes; what are the special difficulties of the investigation?
- VI. Obtain a formula for the integral current through a ballistic galvanometer, and apply the result to determine the capacity of a condenser in absolute measure.
- VII. Describe some method of measuring electro-magnetically the electromotive force of a cell.

ADVANCED ORGANIC, INORGANIC
AND PRACTICAL CHEMISTRY
ANIMAL PHYSIOLOGY, INCLUDING
HISTOLOGY, PHYSIOLOGICAL
CHEMISTRY, AND THE ELE-
MENTS OF DEVELOPMENT
SYSTEMATIC BOTANY, WITH VEGE-
TABLE MORPHOLOGY, HIS-
TOLOGY, AND PHYSIOLOGY
GEOLOGY, MINERALOGY, AND
PALÆONTOLOGY.

No student
selected
these
subjects.

NOVEMBER, 1888.

HIGHER PUBLIC EXAMINATION.

FIRST YEAR SUBJECTS.

- | | | |
|--|---|--|
| <p>1. LATIN, PART I.
2. GREEK, PART I.
5. ENGLISH LANGUAGE AND LITERATURE
6. PURE MATHEMATICS, PART I.
7. PHYSICS, PART I.</p> | } | <p>The same papers as set for the First Year of the B.A. Degree in these subjects.</p> |
| <p>12. ELEMENTARY BIOLOGY AND PHYSIOLOGY</p> | } | <p>The same paper as set for the First Year of the B.Sc. Degree in this subject.</p> |
| <p>4. GERMAN. The same paper on Literature and Grammar as set for the B.Sc. Degree.</p> | | |

SECOND YEAR SUBJECTS.

- | | | |
|---|---|--|
| <p>1. LATIN, PART II.
2. GREEK, PART II.
9. LOGIC
6. PURE MATHEMATICS, PART II.
13. PHYSIOLOGY
14. BOTANY</p> | } | <p>No Candidates presented themselves in these subjects.</p> |
| <p>7. PHYSICS, PART II.
8. APPLIED MATHEMATICS
11. ORGANIC AND PRACTICAL CHEMISTRY
15. GEOLOGY</p> | } | <p>The same papers as set for the Second Year of the B.Sc. Degree in these subjects both for Pass and Honours.</p> |

3. FRENCH.

Higher Public
Examination,
November, 1888.

PROFESSOR MORRIS, M.A.

Time—Three hours.

I. Translate the following passages from *Le Barbier de Seville*:—

(a) BAZILE.—La calomnie, monsieur ! Vous ne savez guère ce que vous dédaignez ; j'ai vu les plus honnêtes gens près d'en être accablés. Croyez qu'il n'y a pas de plate méchanceté, pas d'horreurs, pas de conte absurde, qu'on ne fasse adopter aux oisifs d'une grande ville en s'y prenant bien : et nous avons ici des gens d'une adresse !... D'abord un bruit léger, rasant le sol comme hirondelle avant l'orage, *pianissimo* murmure et file, et sème en courant le trait empoisonné. Telle bouche le recueille, et *piano, piano*, vous le glisse en l'oreille adroitement. Le mal est fait, il germe, il rampe, il chemine, et *rinforzando* de bouche en bouche il va le diable ; puis tout à coup, ne sais comment, vous voyez calomnie se dresser, siffler, s'enfler grandir à vue d'œil. Elle s'élançe, étend son vol, tourbillonne, enveloppe, arrache, entraîne, éclate et tonne, et devient, grâce au ciel, un cri, général, un *crescendo* public, un *chorus* universel de haine et de proscription.

(b) BARTHOLO *bas au comte*.

C'est le drôle qui a porté la lettre au comte.

LE COMTE *bas*.

Il m'a l'air d'un fripon.

BARTHOLO.

Il ne m'attrapera plus.

LE COMTE.

Je crois qu'à cet égard le plus fort est fait.

BARTHOLO.

Tout considéré, j'ai pensé qu'il était plus prudent de l'envoyer dans ma chambre que de le laisser avec elle.

LE COMTE.

Ils n'auraient pas dit un mot que je n'eusse été en tiers.

ROSINE.

Il est bien poli, messieurs, de parler bas sans cesse ! Et ma leçon ? (*Ici l'on entend un bruit, comme de la vaisselle renversée.*)

BARTHOLO *criant.*

Qu'est-ce que j'entends donc ! Le cruel barbier aura
tout laissé tomber par l'escalier, et les plus belles
pièces de mon nécessaire ! (*Il court dehors*)

II. Translate the following passages and words, adding in each case a short explanatory comment :—

(a) Pardon de la liberté ! Qu'a-t-il produit pour qu'on le loue ? Sottises de toute espèce : la liberté de penser, l'attraction, l'électricité, le tolérantisme, l'inoculation, le quinquina, l'Encyclopédie, et les drames..

(b) Le chef branlant, la tête chauve,
Les yeux vérons, le regard fauve,
L'air farouche d'un Algonquin.

(c) Le nerf de l'intrigue.

(d) Les moustiques, les maringouins, les feuillistes.

III. Write a short account of the character of Figaro.

IV. What are the meanings of the following words :—Chauve-souris, écusson, marraine, nef, pélerin, pertuisane, quenouille, scapulaire, timbalier ?

V. Translate—

(a) Si quelque enseignement se cache en cette histoire,
Qu'importe ? il ne faut pas la juger, mais la croire.
La croire ! Qu'ai-je dit ? ces temps sont loin de nous !
Ce n'est plus qu'à demi qu'on se livre aux croyances.
Nul, dans notre âge aveugle et vain de ses sciences,
Ne sait plier les deux genoux !

(b) Ne crains-tu pas surtout qu'un follet à cette heure
N'allonge sous tes pas le chemin qui te leurre,
Et ne te fasse, hélas ! ainsi qu' aux anciens jours,
Rêvant quelque logis dont la vitre scintille,
Et le faisan doré par l'âtre qui petille,
Marcher vers des clartés qui reculent toujours ?

(c) Mais elle disait : “ Loin du monde,
Vivre et prier pour les méchants !
Quel bonheur ! quelle paix profonde
Dans la prière et dans les chants !
Là, si les démons nous menacent,
Les anges sont nos boucliers ! ”
Enfants, voici des bœufs qui passent,
Cachez vos rouges tabliers !

—Victor Hugo.

- VI. What is meant by assonance! What is an Alexandrine?
Is alliteration common in French poetry?
- VII. The principal element of the French language is Latin, but not classical Latin. Comment on this statement, and illustrate it.
- VIII. What is the rule about the agreement of the Perfect Participle in French?
- IX. In translating English into French care must be taken as to words that end in *ing*. Comment fully on this.
- X. Translate—

(a) Pour acheter les enfants quarante francs, il n'en résulte pas nécessairement qu'on est un ogre et qu'on fait provision de chair fraîche afin de la manger.

Vitalis ne voulait pas me manger, et, par une exception rare chez les acheteurs d'enfants, ce n'était pas un méchant homme.

Après avoir descendu une pente assez rapide, nous étions arrivés sur une vaste lande qui s'étendait plate et monotone à perte de vue. Pas de maisons, pas d'arbres. Un plateau couvert de bruyères rousses, avec çà et là des grandes nappes de genêts rabougris qui ondoyaient sous le souffle du vent.

(b) Quand je m'aperçus de sa ruse, je supprimai bien entendu le sucre d'orge, mais il ne se découragea pas : il commençait par m'implorer de ses yeux suppliants ; puis quand il voyait que ses prières étaient inutiles, il toussait de toutes ses forces, sa face se colorait, les veines de son front se distendaient, les larmes coulaient de ses yeux, et il finissait par suffoquer, non plus en jouant la comédie mais pour tout de bon.

- XI. Translate into French—

The story is told that a master in one of our great public schools—which shall be nameless—kept on reading About's *Le Roi de Montagnes* with his French class for twelve years continuously. By the time it was ended a fresh lot of boys had come up, and he began it again. I can't help thinking he must have longed for some change, much as I admire Edmond About's brilliant *jeu d'esprit*. Nevertheless there is something to be said for his system. He had got hold of a book which interested and attracted his boys, and he stuck to it, not perhaps

being readily able to put his hand on another. He remembered probably the weary dulness that he had himself felt as a boy when struggling in very small instalments through *Athalie*, or even *Les Femmes Savantes*, or *Tartuffe*, and he wished to spare his pupils a similar infliction.

10. INORGANIC CHEMISTRY (Pass Paper).

The same paper as set on this subject for the First Year of the B.Sc. Degree.

10. INORGANIC CHEMISTRY (Honour Paper).

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

[*N.B.*—Candidates are expected to write formulæ and equations wherever possible.]

- I. Describe briefly the method which has been employed for the liquefaction of oxygen, explaining the principles involved.
- II. A water on analysis is found to contain little or no free or albumenoid ammonia, and it does not reduce potassium permanganate to any appreciable extent. On the other hand it contains relatively large quantities of nitrates and more chlorine than usual. What would you say as to the suitability of such water for drinking purposes? Explain fully your answer.
- III. Describe the manufacture of bleaching powder. What compounds are believed to exist in a solution of this substance? Explain with equations its decomposition by sulphuric and hydrochloric acids.
- IV. State what you know of the experiment by which it is claimed that fluorine has been isolated, and write a short account of its properties.
- V. Compare the metals of the alkalies and of the alkaline earths with reference chiefly to their compounds. What metal forms a link between these two groups, and why?

- VI. Describe the preparation of aluminium from bauxite.
- VII. Describe fully how a solution of ferric hydroxide can be obtained, and explain the principles involved.
- VIII. What is meant by *allotropism*? State the usual theory to account for it, and exemplify by an instance in which this theory is believed to be substantiated.
- IX. The vapour density of sulphur at about 500°C is found by experiment to be 6.62 (air taken as unity) and at temperatures above 800°C to be 2.23. The vapour density of ammonium chloride is found to be 0.89 (air taken as unity). Discuss fully these facts.

Higher Public
Examination,
November, 1888.

16. THEORY AND HISTORY OF EDUCATION.

PAPER I.

ARCHDEACON FARR, LL.D., AND J. A. HARTLEY, ESQ., B.A., B.Sc.

Time—Three hours.

- I. What do you understand by a logical definition? Examine the definitions "A verb is a word which denotes being, doing, or suffering," and "A verb is a word which makes a statement."
- II. What are the more common forms of logical fallacies? Illustrate your answer from your experience as a teacher.
- III. Give a psychological analysis of "memory," and state the conditions necessary for its effective exercise. What use would you make of your knowledge of this subject in training your pupils?
- IV. Give your views on the training of the moral sense.
- V. Discuss the school teaching of history.
- VI. Parents frequently object to their children learning Latin. State your own views, and support them by arguments.
- VII. What branch of natural science would you select to teach to children between twelve and fourteen? Give a full statement of your reasons for your choice.
- VIII. State your views on the question of school punishments. Give Herbert Spencer's doctrine and criticize it.

THEORY AND HISTORY OF EDUCATION.

PAPER II.

ARCHDEACON FARR, LL.D., AND J. A. HARTLEY, Esq., B.A., B.Sc.

Time—Three hours.

- I. Explain Locke's views on the teaching of writing, and on "Latin without Grammar."
 - II. Locke says "Children's enquiries are not to be slighted ; so also great care is to be taken that they never receive deceitful and eluding answers." Examine and illustrate this statement.
 - III. Summarize Herbert Spencer's remarks on the teaching of geometry.
 - IV. Sketch the life of Comenius, and give an account of any one of his principal works.
 - V. What were the special merits of Pestalozzi as an educator ? How and why did he fail ?
 - VI. Explain the principles on which the Kindergarten system is based, and give a sketch of the practical working.
 - VII. Have you observed in your study of the History of Education any points which might, with advantage, be noted at the present day ? If so, indicate them.
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clxxv

DECEMBER, 1888.

Ordinary Exam.,
Mus. Bac.
First Year.
December, 1888.

ORDINARY EXAMINATION FOR THE DEGREE
OF MUS. BAC.

FIRST YEAR.

ELEMENTS OF MUSIC AND HARMONY.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

- I. What is meant by the terms "Great Octave," "Small Octave," and "Twice Marked Octave."?
- II. Distinguish clearly between Compound and Simple times. Illustrate your answer by writing two measures of music, each containing three notes and one rest, but each having a different time signature.
- III. What is a tetrachord? Write the upper half of the scale of F sharp Minor in all forms known to you.
- IV. Distinguish between the appoggiatura and the acciacatura, and quote any works in which they are used. Do modern writers use these embellishments?
- V. Transpose the following passage into the Tonic major, adding bar lines and time signature:—



- VI. Figure the basses of, and resolve the following discords:—

Ordinary Exam.,
Mus. Bac.
First Year,
December, 1888.

VII. Above the note B \flat write, in four parts, the chord known as the "Neapolitan Sixth." State what key the example is in.

VIII. Continue the following sequence and bring it to a natural ending in four complete bars :—

IX. Write a progression beginning in the key of E Minor, passing through each of its attendant keys, and ending in the original key.

X. Harmonize the following melody for four voices, and modulate to the keys of C major and D Minor :—

XI. Write a bar with figures, showing the harmony used by Mendelssohn in the first ten bars of the *Lieder ohne Worte*, Op. 30, No. 9.

XII. Add parts for Treble, Alto, and Tenor above the following bass. Mark the roots of all discords :—

Ordinary Exam.
Mus. Bac.
First Year.
December, 1888

COUNTERPOINT.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

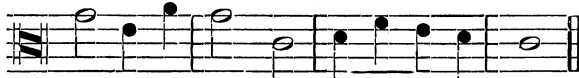
- I. Define "Counterpoint" and "Harmony," and show in what different directions a student's attention is engaged when receiving instructions in these subjects.
- II. Most subjects for contrapuntal treatment are given in notes of equal length (*i.e.* semibreves.) Is this compulsory, or may notes of different time value be used?
- III. Explain the expression "Mi Contra Fa."
- IV. Quote from memory any rules that apply to *all* the species of Counterpoint.
- V. To the following C.F. add a Counterpoint for Alto in the Fifth species (two parts.)

- VI. Below the same C.F. add a Tenor part in the Second species and a Bass part in the First species (three parts.)
- VII. To the following C.F. add a Fourth species for Treble and a First species for Alto (three parts.)

Ordinary Exam.,
Mus. Bac.
First Year.
December, 1888.

VIII. Transpose the above subject a fifth higher, using the Tenor stave, and add a Bass part in the Third species (two parts.)

IX. Add parts for Tenor and Bass (both in the First species) below the following (three parts.)



X Below the above C.F. add a Tenor part in the Second species (two parts.)

N.B.—Candidates are particularly requested to figure the bass of each exercise.

HARMONY.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

- I. Give a list of all the Diatonic and Chromatic concords available in the key of E major.
- II. State the rules relating to Hidden 5ths and 8ths.
- III. Under what circumstances may augmented intervals occur in vocal melodies?
- IV. Under the following melody write a suitable bass with figures to indicate the harmony. Let there be modulations to E major and B minor.

- V. Analyse the first 24 bars of Mendelssohn's *Lieder ohne worte*, Op. 30, No. 10, giving a bass with figures to show the harmony used. Do not figure passing notes.
- VI. Write the suspensions 9-8, 4-3, and 5-6, showing the available inversions of each.
- VII. Fill up the following bass in four parts, with proper clefs, giving the roots of all discords upon a separate staff:—

Ordinary Exam,
Mus. Bac.
Second Year,
December, 1888.

The first staff of music has the following figured bass notation below it:
6 4 5 -- 4 6 5— 6 6 4 76 --
♭5 ♭2 -- 3 ♭5 4323 5 2 5

The second staff of music has the following figured bass notation below it:
7 6 5 9 8 4 6 4 7 8 ♭7 4 ♭6 4 7 ♭8 ♭7
4 -- # ♭ 3 5 — ♭ ♭ 5 —
43-- ♭4 3--

The third staff of music has the following figured bass notation below it:
♭5 ♭6 ♭6 ♭4 7 87 ♯6 8 9 87 43
4 ♭ ♭5 — ♯6 7 3 —
♭ ♭4 3 -- 4 --

VIII. Say what keys the bass given in question VIII. passes through. Point out any sequence in the bass, and say whether it be "tonal" or "real."

IX. May passing notes ever be approached or quitted by leap? Quote from memory any melody in which passing notes occur on the accented portion of a bar. Give the technical name for such notes.

X. Over each of the following notes write, in four parts, an augmented triad, a major triad, a diminished triad, and a minor triad:—

(a) (b) (c)

N.B.—Candidates *must* work questions IV., V., VI., and VII.

COUNTERPOINT, CANON AND FUGUE

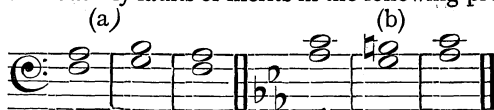
PROFESSOR IVES, MUS. BAC.

Time—Three hours.

I. Define "Counterpoint," "Antiphony," "Gamut," "Mode," "Mean."

II. Point out any faults or merits in the following progressions :

Ordinary Exam.,
Mus. Bac.,
Second Year,
December, 1888.



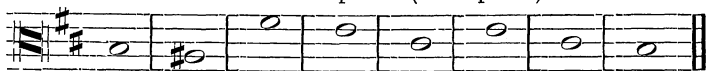
III. In the key of B minor write a bass with figures showing the common chords available in that key.

IV. Does the law that "no two parts may have more than three consecutive thirds or sixths" apply to an exercise in three or more parts ?

V. State an exception from the rule against two chords in a bar.

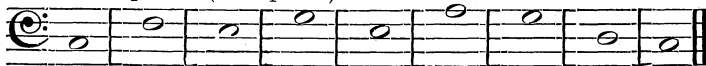
VI. Some theorists class Counterpoint of three notes against one as belonging to the Second species ; others say it belongs to the Third species. With which of these do you agree ? Give reasons for your answer.

VII. To the following subject add Bass and Soprano parts, both in the Third species (three parts.)



VIII. Transpose the above subject an 8ve. lower and add two upper parts in the Fifth species (three parts.)

IX. To the following C.F. add a Treble part in the Fourth species, and parts for Alto and Tenor in the First species (four parts.)



X. Write the first eight bars of "Home, sweet home" in the key of F, and add a Double Counterpoint of the Fifth species in the tenth below. Figure the bass.

XI. Mention the constituent parts of a fugue. Is the Counter exposition an *essential* part of a Fugue ?

XII. Give answers to the following subjects, and say whether each be tonal or real, and, if the former, whether authentic or plagal :—

(a)



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ACOUSTICS.

PROFESSOR BRAGG, M.A

Time—Three hours.

- I. Explain in a general manner the way in which sound waves are propagated through the air, giving mechanical analogies.
- II. Describe the siren, and explain how it may be used to measure the number of vibrations per second in a sound of given pitch.
Describe a way in which it may be shown experimentally that sounds of the same pitch have the same number of vibrations per second.
- III. How would you prove experimentally that the number of vibrations per second of a string varies inversely as the length of the string.
- IV. If two tuning forks of the same pitch be mounted on suitable stands and placed in the same room, and if one be sounded, the other is, after a few seconds, found to be sounding too. What is the cause of this effect? Give other examples of its occurrence.
- V. If a small disc be lowered into an open organ pipe when sounding, it is found that when it is half way down the sound of the pipe is not affected, but when it is a quarter of the way down there is a tendency for the note to jump up an octave. Explain these facts.

Where would the disc have to be placed in a stopped organ pipe so as not to interfere with the sound?

- VI. Explain the action of a reed. What do we mean when we say that the vibrations of the reed sometimes govern, and sometimes are governed by, the vibrations of the air in the pipe attached to the reed? Give instances.
- VII. Explain how two sounds can produce silence.
- VIII. What are combinational tones? State the pitch relative to the primary notes of the differential tones formed when a fourth is sounded.
- IX. State the physical theory of the consonance and dissonance of chords. Explain according to this theory how it is that the fifth is a more consonant interval than the fourth.
-

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THIRD YEAR MUS. BAC.

HARMONY.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

- I. Music is sometimes described as written in the "free" style or "strict" style. If a piece of music were given to you for analysis how would you decide which of these styles it belonged to?
- II. Arrange the following melody for a string quartet. Let there be constant movement in one or other of the accompanying parts, after the model of the bass part given. Mark the bowing:—

The musical score consists of four staves. The top staff is a treble clef melody in G minor. The second staff is a bass clef accompaniment with figured bass notation: 6, 6 6 6 6 6 5, 6 4 5 4 3, and 6 4 2. The third and fourth staves are treble clef parts. The second staff ends with a fermata and the instruction 'c.'

- III. Analyse the first variation in Mozart's so-called Sonata in A. Give a bass with figures to show the harmony used.
- IV. Write from memory four short melodies taken from works by Handel, Beethoven, Mozart, and Wagner. State the source of each fragment.

- V. Write a song for Tenor voice to the following words. Give the voice part complete, but only a sketch of the pianoforte part need be supplied:—

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H.M.B.R.

Oh light that art gilding the clouds in the east,
Sink soft on the eyes of my love,
And touching the fringe of her lashes, rest there
As light as a timorous dove.

The sweet eyes are opened : Ah me, what a charm
The tints of the sunlight leave there !
Oh love, it is morning ; awake to the glow
That gleams in thy shadowy hair !

The sun rises higher, and sets in a flame
The dew on the quivering grass ;
Oh love, may thy days be all lightsome as this,
Ere dawn into darkness must pass !

- VI. Sketch the outline of a short movement for the pianoforte in either Minuet, Rondo, or Ternary form. Only the melody and a figured bass need be given, with occasional bars fully written out to show the distribution of the harmonies.
- VII. Write a Part-song or Madrigal to the words given in question V. At discretion the whole, or a portion only of the words may be used. The voice parts to be fully written out.
- VIII. Add figures to the following bass showing what harmonies might be used. Mark with a cross any bars in which modulations are introduced, and state to what keys the modulations lead:—

- IX. Over the note "F" write, in five parts, the three forms of the chord of the Augmented Sixth. Say to what two keys the chords may belong, and resolve them accordingly.

N.B.—Candidates need only attempt one of Questions V., VI., and VII. Questions II. and VIII. are essential.

COUNTERPOINT, CANON AND FUGUE.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

- I. For what reason is a study of Counterpoint as well as Harmony a necessary part of musical education?
- II. Mention a peculiar practice among old masters in their endings of compositions in minor keys, and suggest a scientific explanation of the custom.
- III. To the following C.F. add a Bass part in the Fourth species and Treble part in the Third species. The bass may begin on the first beat if thought desirable (three parts.)



- IV. Transpose the above subject an octave higher, and add three parts below, all in the Fifth species. Let there be some imitative devices shown (four parts.)
- V To the following C.F. add a Treble in Fifth species and parts for Alto and Two Tenors in the First species (five parts.)



- VI. Point out any contrapuntal devices employed in the construction of the following chant. Give name of composer:—



VII. Give the subjects to precede the following *answers*. State the source of the subject (c) in C Minor :—

(a)

(b)

(c)

VIII. Write, in short score, the exposition of a four part vocal fugue on the following subject. Let a middle voice lead. Figure the bass :—

IX. Show that the above subject is suitable for treatment in Stretto,

FORM, AND INSTRUMENTATION.

PROFESSOR IVES, MUS. BAC.

Time—Four hours.

- I. Describe the forms of the overtures to (1) Handel's "Messiah," (2) Mendelssohn's "Midsummer Night's Dream," (3) Mozart's "Zauberflöte."

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II. Write a *short* essay on one of the following subjects:—

- (a) "The origin of the Sonata."
- (b) "Form in music."
- (c) Beethoven's influence on the Sonata."

III. Who invented the "Scherzo"? Describe the form and say what movement it was intended to replace.

IV. Analyse Beethoven's Sonata in C, op. 53.

V. Continue the following melody for eight bars, modulating if desired. Then add an answering phrase of eight bars, beginning and ending in some related key, but arranged so as to lead naturally to a repetition of the first eight bars:—



VI. Write the *real* sounds of the following passages:—

(a)

CORNO DI BASSETTO.



(b)

TROMBA IN A.



VII. Assuming that you had not at your disposal the instruments for which the above passages were written, what others would you substitute? Re-write the parts for the instruments you suggest.

VIII. Which of the following chords would be practicable on the violin? Quote them by numbers:—

(1) (2) (3) (4) (5) (6) (7) (8) (9)



IX. State the compass of the following instruments, and say what clefs are used in writing for them :—Violoncello, Clarinet in B flat, Tenor Trombone, Flute, Bassoon.

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X. Score the following extract for full orchestra :—

The first system of music consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The key signature has two flats (B-flat and E-flat), and the time signature is common time (C). The music begins with a piano (*p*) dynamic marking. The upper staff contains a melodic line with eighth and sixteenth notes, while the lower staff provides a harmonic accompaniment with chords and moving lines.

The second system of music continues the piece. It features a crescendo (*CRES.*) leading to a forte (*f*) dynamic. The notation includes various rhythmic values and articulation marks. The lower staff has some notes written with a sharp sign, possibly indicating a key change or a specific performance instruction.

The third system of music shows a fortissimo (*ff*) dynamic. The music is more rhythmically active, with many sixteenth and thirty-second notes. The notation is dense, with many beamed notes in both staves.

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JUNIOR PUBLIC EXAMINATION IN MUSIC.

THEORY OF MUSIC.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

- I. Give examples of the various kinds of notes, including the breve and semidemisemi-quaver.
- II. Write a quaver rest, a semibreve rest, and a semidemi-semiquaver rest.
- III. Write a double dotted minim, and show how many semi-quavers it would be worth.
- IV. Why is this clef called the G clef?



IV. Why is this clef called the G clef?

and why is this called the C clef?



If the G clef were placed on the third line of a staff what would be the names of the notes on the other lines?

- V. What is a compound interval? Is the unison an interval?
- VI. Over the note B flat write (a) a minor 3rd, (b) a minor 6th, (c) an augmented 4th, and (d) a minor 2nd. Over the note C sharp write (e) a minor 7th, (f) a diminished 5th, and (g) a perfect 4th.
- VII. Say (without writing down the notes) what each of the intervals mentioned in Question VI would become if inverted.
- VIII. Write a chromatic scale ascending and descending one octave, commencing on the note E.
- IX. State what keys have four flats, two flats, three sharps, and five sharps in their signature.
- X. Write four measures (or bars) of $\frac{6}{8}$ time—the first to contain three notes, the second five notes; the third seven notes, and the fourth two notes and two rests.

XI. State the difference between $\frac{6}{8}$ time and $\frac{3}{4}$ time, and between $\frac{2}{2}$ time and $\frac{4}{4}$ time.

XII. Alter the value of the notes in the following passage, and re-write it as four bars of $\frac{6}{8}$ time.



XIII. Transpose the melody given in Question XII a major third higher, using the Tenor clef.

XIV. Give the meanings of the following :— *Con moto tenuto, Mezzo, Rinforz, Sp., a poco a poco, M.M.* $\bullet = 144$, *Grazioso, Andantino.*

XV. How many notes are needed to form a Minor Common chord? Add a Tenor part to the following, using only common chords :—



XVI. In what key is the following melody? Add bar lines and time signature :—



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THEORY OF MUSIC

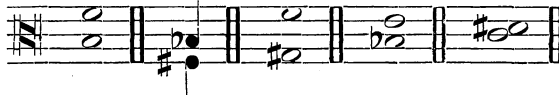
ELEMENTS OF MUSIC AND HARMONY.

PROFESSOR IVES, MUS. BAC.

Time—Three hours.

- I. State the difference between Simple and Compound time.
Illustrate your answer by writing two measures (or bars) of music, each containing one crotchet and four quavers, but each bearing a different time signature.
- II. To what key or keys may the following intervals belong :

(a) (b) (c) (d) (e)



- III. For what purpose is the slur used in music ?
- IV. What is an enharmonic interval ? Can such an interval be played upon a piano or violin ?
- V. Complete the following so as to make each passage a minor scale (harmonic form.) Do not alter the first note !



- VI. Transpose the following melody a perfect 4th higher, adding bar lines and time signature :—



- VII. Correct the errors in the following progressions without altering any bass note or changing the position of the first chord in each bar. Add figures to the bass :—

(a) (b) (c)

The exercise consists of three measures labeled (a), (b), and (c). Each measure is written in a grand staff with a treble clef on the upper staff and a bass clef on the lower staff. Measure (a) shows a simple harmonic accompaniment. Measure (b) introduces a flat in the bass line. Measure (c) continues the harmonic pattern.

VIII. Add Alto and Tenor parts to the following. Short score may be used, but credit will be given if the parts are written in proper clefs:—

6 5 4 5 = 6 7 6 6 6 5 6 5

The first system of exercise VIII shows a single melodic line in the treble clef and a bass line in the bass clef. The key signature has two sharps (F# and C#) and the time signature is 3/4. Below the bass line, the following figures are written: 6 5 4 5 = 6 7 6 6 6 5 6 5.

6 6 7 6 6 7

The second system of exercise VIII shows a single melodic line in the treble clef and a bass line in the bass clef. Below the bass line, the following figures are written: 6 6 7 6 6 7.

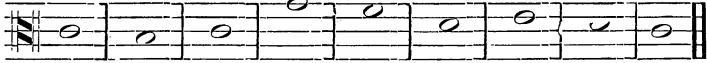
IX. Harmonize the following single chant in four parts (short score). Figure the bass:—

The exercise IX shows a single melodic line in the treble clef. The key signature has three sharps (F#, C#, G#) and the time signature is 4/4. The melody consists of several measures of music.

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COUNTERPOINT.

- X. Add a counterpoint of the Third species below the following Canto Fermo. Use the bass clef :—



- XI. Add a counterpoint for treble voice in the Fifth species above the same C. F.

HISTORY OF MUSIC.

- XII. When did Purcell, Rossini, and Haydn live? Mention the chief works of each.

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N.B.—Candidates for a First Class Certificate *must* work questions VIII to XII inclusive.

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SEPTEMBER, 1888.

Preliminary  
Examination,  
September, 1888.

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# PRELIMINARY EXAMINATION.

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## I. DICTATION.

The greatness of Rome (such is the language of the historian) was founded on the rare and almost incredible alliance of virtue and of fortune. The long period of her infancy was employed in a labourious struggle against the tribes of Italy, the neighbours and enemies of the rising city. In the strength and ardour of youth she sustained the storms of war, carried her victorious arms beyond the seas and the mountains, and brought home triumphal laurels from every country of the globe. At length, verging towards old age, and sometimes conquering by the terror only of her name, she sought the blessings of ease and tranquility. The venerable city, which had trampled on the necks of the fiercest nations, and established a system of laws, the perpetual guardians of justice and freedom, was content, like a wise and wealthy parent, to devolve on the Cæsars, her favourite sons, the care of governing her ample patrimony.

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## I. READING.

A party of 500 horse appeared at Holmby, conducted by one Joyce, who had once been a tailor by profession, but was now advanced to the rank of cornet, and was an active agitator in the army (June 4). Joyce came into the king's presence armed with pistols, and told him that he must immediately go along with him. "Whither?" said the king. "To the army," replied Joyce. Charles appointed to meet him at the door at six o'clock the next morning, where the troopers were drawn up; and in answer to his repeated enquiries for his authority, Joyce pointed to the soldiers, tall, handsome, and well accoutred. "Your warrant," said Charles, smiling, "is written in fair characters, legible without spelling."

**2 & 3. ENGLISH GRAMMAR AND COMPOSITION.**

MR. F. W. PENNEFATHER, LL.M., B.A.

Time—Two and a-half hours (including Dictation and Reading).

## A. GRAMMAR.

I. Analyse either of the following sentences :—

- (a). I hold it true, whate'er befall ;  
I feel it, when I sorrow most ;  
'T is better to have loved and lost  
Than never to have loved at all.
- (b). 'T is not in mortals to command success ;  
But we'll do more, Sempronius ; we'll deserve it.

II. Parse and explain the following words in italics :—

The *children's* bread.  
A *b'ass* candlestick.  
A *loving* nature.

III. Explain the word *rank* in the following sentences :—

My offence is *rank*, it smells to heaven.  
The Earl should be treated as a man of *rank*.  
The soldiers, in *rank* and file.

IV. Explain the following terms :—

Apposition, comparative degree, complex sentence,  
predicate, relative pronoun, reflective verb.

V. Parse the words in italics in the following sentences :—

He sleeps the *sleep* of death.  
I cannot *rely* on you.  
He ran a full *mile*.

VI. Write out short sentences containing the third person singular, present and past indefinite of the following verbs :—*to lie, to lay, to sit, to let, to bring, to sing, to break, to take.*

## B. COMPOSITION.

Write an essay on one of the following subjects :—

- a. The admission of Chinese into Australia.  
b. The changes that have taken place in England during the present reign.  
c. Gardening as a source of amusement.

[N.B.—This question must be attempted by all Candidates.]

## 4. ARITHMETIC.

Preliminary  
Examination,  
September, 1888.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Two hours and a-half.

- I. Write down in figures five thousand and five millions five thousand and five.
  - II. How many grains are there in an ounce Avoirdupois and an ounce Troy respectively ? Also, how many square yards in a square chain, an acre, and a square mile respectively ?
  - III. A quantity of water weighing 577 oz. Avoirdupois occupies a space of one cubic inch ; find the number of cubic inches occupied by 10 lbs. of water. Find also the weight of a cubic foot of water in ounces.
  - IV. Show that the fractions  $\frac{1}{7}$ ,  $\frac{2}{7}$ ,  $\frac{3}{7}$ ,  $\frac{4}{7}$ ,  $\frac{5}{7}$ ,  $\frac{6}{7}$  can all be expressed by repeating decimals containing the same digits in different orders. Add all these decimals together and show that their sum = 3.
  - V. I buy shares at a certain price. I sell one-half of them at forty-five shillings, one-third at fifty shillings, and one-twelfth at sixty shillings, and make thereby £10 profit, having still four shares left. Find the number of shares bought, and the price paid per share.
  - VI. A bankrupt's debts amount to £1,800 and his assets to £1,000. After paying costs his creditors receive 5s. 8½d. in the £ ; find the costs.
  - VII. In what time will a sum of money double itself at five per cent. simple interest ? Prove your answer.
  - VIII. How many cubical blocks, two inches in the side, can be packed into a box four feet long, three feet broad, and two feet deep ?
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NOVEMBER, 1888.

Junior Public  
Examination,  
November, 1888.

## JUNIOR PUBLIC EXAMINATION.

## I. ENGLISH.

## (A.) OUTLINES OF THE HISTORY OF ENGLAND.

E. G. BLACKMORE, ESQ.

Time—Two hours.

## PART I.

*(Candidates are not to answer more than four questions in each part of the paper.)*

- I. (a) Give the date of the first Roman Invasion of Britain: and of the final withdrawal of the Roman troops. (b) By whom was the Roman dominion finally established in Britain? (c) What traces of Roman occupation survive in the names of places?
- II. (a) On what did William the Conqueror base his claim to the throne of England? (b) Give the date of the battle of Hastings, commonly so called, and the place where the battle was fought? (c) Who were the Anglo-Norman Kings?
- III. (a) For how many centuries did the House of Plantagenet supply kings to England? (b) Name the two branches into which the House of Plantagenet was subsequently divided? (c) What were the Constitutions of Clarendon? (d) When and where was Magna Charta signed and give any of its provisions?
- IV. (a) Who was Simon of Montfort? (b) In what sense may he be designated the founder of the House of Commons and of the Imperial Parliament in its present form.
- V. (a) In whose reign was Ireland first conquered? (b) What is there specially notable about the Pope who gave authority for the invasion? (c) In whose reign was Wales conquered? (d) By whom is the title of the Prince of Wales borne, and give the story of the first Prince of Wales? (e) What is the motto of the Prince of Wales, and how was it acquired?



PART II.

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- VI. (a) In whose reign did the civil war of the fifteenth century begin? (b) What was its origin, and when, how, and with what result did it end?
- VII. (a) Give the names of the Sovereigns of the House of Tudor. (b) Give the leading historical event in the reign of each.
- VIII. (a) Who were Hampden, Strafford, Laud; for what are they specially noteworthy; and what was their fate? (b) Explain Ship Money; Star Chamber; Solemn League and Covenant; Pride's Purge. (c) What general was mainly instrumental in bringing about the Restoration.
- IX. (a) For what is the year 1688 famous? (b) Explain shortly, Convention Parliament; Bill of Rights; Act of Settlement. (c) What were the four great victories gained by England in the reign of Anne, and under what General? (d) What famous fortress was captured in this reign, and by whom? (e) In whose reign was the union of England and Scotland brought about?
- X. (a) In whose reigns did the following events take place:—The Jacobite rebellions of 1715 and 1745; the death of Wolfe, and the acquisition of Canada; the battle of Plassy; the declaration of American Independence; the French Revolution; the battles of the Nile, Trafalgar, Waterloo; Catholic Emancipation; Abolition of Slavery; the Reform Bill; the Repeal of the Corn Laws?
- XI. In what reigns did the following live? Mention one or two of the principal works of each. Chaucer; Shakspeare; Spenser; Milton; Defoe; Swift; Pope; Byron.

(B.) ENGLISH LITERATURE.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Two hours.

- I. Quote or describe as accurately as you can any two passages in the *Task* which reveal respectively Cowper's religious and political convictions.
- II. Quote or reproduce the substance of any three distinct passages in the *Task* illustrative of the poet's careful observation of nature.

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- III. Select from the *Task* five lines, not necessarily consecutive, which you deem especially admirable in form.
- IV. Give the meaning of the following words :—*Terraqueous, nitrous, vitreous, devious, deciduous, prelibation, pusillanimous, agglomerated, indurated, parallax.*
- V. Describe the metre of the *Task*, and scan the following lines :—
- (1) Of close-rammed stones has charged the encumbered soil.
  - (2) Virtue and vice had boundaries in old time.
  - (3) That cheer but not inebriate, wait on each.
- VI. Explain the allusions in the following passages :—
- (a) There was I found by One who had Himself been hurt  
By the archers.
  - (b) There like the visionary emblem seen by him of Babylon,  
Lite stands a stump.
  - (c) As dreadful as the Manichean god.
  - (d) The still small voice is wanted.
  - (e) The omnipotent magician, Brown, appears.
  - (f) The fragrant weed, the Frenchman's darling.
  - (g)                 With less prudence than of old  
Jotham ascribed to his assembled trees.
  - (h) Never weary of the pipe of Tityrus.
  - (i) Sidney, warbler of poetic prose.
  - (j) For which our Hampdens and our Sidneys bled.

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(C). GEOGRAPHY.

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

Time—Two hours.

(*You may select any six questions.*)

- I. Name and define the climatic zones on the earth's surface, and state the leading botanical features of each.
- II. Draw an outline map of the coastline from Port Lincoln to Western Port, and show the position of the chief ports.
- III. Write an account of the different races of mankind.

- IV. Indicate the position of the following, mentioning any circumstances of importance connected with them :— Tarawera, Valparaiso, Broken Hill, Brindisi, Moonta, Marseilles, Mount Morgan, Newcastle, Mount Bischoff, and Lima.
- V. Mention the chief centres in the world of the following industries :—(1) raw cotton, (2) manufactured cotton, (3) steel, (4) lace, (5) wheat, (6) tanning material, (7) hemp, (8) wine, (9) cochineal, (10) indigo.
- VI. Describe the river system of Africa, mentioning any important towns on each river.
- VII. Explain accurately the terms :—*Watershed, Isothermal lines, Meridian, Snowline, Geyser.*

## 2. LATIN.

### CICERO—DE SENECTUTE.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Two hours.

#### I. Translate—

Nihil igitur adferunt, qui in re gerenda versari senectutem negant, similesque sunt, ut si qui gubernatorem in navigando nihil agere dicant, cum alii malos scandant, alii per foros cursent, alii sentinam exhauriant, ille clavum tenens quietus sedeat in puppi. Non facit ea, quae iuvenes ; at vero multa maiora et meliora facit. Non viribus aut velocitate aut celeritate corporum res magnae geruntur, sed consilio, auctoritate, sententia, quibus non modo non orbari, sed etiam augeri senectus solet.

Write down the first person singular, perfect tense, indicative mood, active voice of *adferunt, gerenda, sunt, agere, scandant, cursent, exhauriant, tenens, sedeat, facit, solet.*

#### II. Translate—

Venio nunc ad voluptates agricolarum, quibus ego incredibiliter delector ; quae nec ulla impediuntur senectute et mihi ad sapientis vitam proxime videntur accedere. Habent enim rationem cum terra, quae numquam recusat imperium, nec umquam sine usura reddit, quod accepit, sed

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alias minore, plerumque maiore cum faenore. Quamquam me quidem non fructus modo, sed etiam ipsius terrae vis ac natura delectat. Quae cum gremio mollito ac subacto sparsum semen exceperit, primum id occaecatum cohibet, ex quo occatio, quae hoc efficit, nominata est; deinde tepefactum vapore et compressu suo diffundit et elicit herbescentem ex eo viriditatem; quae nixa fibris stirpium sensim adulescit, culmoque erecta geniculato vaginis iam quasi pubescens includitur; e quibus cum emersit, fundit frugem spici ordine structam, et contra avium minorum morsus munitur vallo aristarum.

Give the nominative singular and the gender of *voluptates*, *senectute*, *faenore*, *gremio*, *fibris*, *stirpium*, *spici*, *ordine*.

Mark the quantity of the penultimate syllable in *accedere*, *recusat*, *usura*, *accepit*, *faenore*, *ipsius*, *mollito*, *cohibet*, *elicit*, *vaginis*, *munitur*.

### III. Translate—

Nemo mihi umquam, Scipio, persuadebit, aut patrem tuum Paullum aut duos avos, Paullum et Africanum, aut Africani patrem aut patrum aut multos praestantes viros, quos enumerare non est necesse, tanta esse conatos, quae ad posteritatis memoriam pertinerent, nisi animo cernerent, posteritatem ad se ipsos pertinere.

Give a short account of the relatives of Scipio to whom reference is made in the above passage.

### IV. Translate into Latin Prose—

- (a) Homer says that speech sweeter than honey flowed from Nestor's tongue.
- (b) Milo, when he had grown old and infirm, happened to be present at the racecourse one day when the athletes were taking exercise. Observing their strength, he burst into tears and exclaimed—"Ah! their arms are vigorous enough, but mine are dead now."
- (c) Xenophon tells us that Cyrus the Elder, on his death-bed, thus addressed his sons:—"Do not suppose that when I die I shall cease to exist. Even in this life you cannot see my soul, but merely infer its existence from my actions. But, even if the soul be destined to perish along with the body, still cherish the recollection of what your father was with affection and zeal."

## 3. GREEK.

## XENOPHON—MEMORABILIA. BOOK I.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Two hours.

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November, 1886.

## I. Translate—

Ἄλλὰ μὴν ἐκεῖνός γε αἰεὶ μὲν ἦν ἐν τῷ φανερωῖ· πρῶτ' τε γὰρ εἰς τοὺς περιπάτους καὶ τὰ γυμνάσια ἦει καὶ πληθούσης ἀγορᾶς ἐκεῖ φανερός ἦν καὶ τὸ λοιπὸν αἰεὶ τῆς ἡμέρας ἣν ὅπου πλείστοις μέλλοι συνέσσεσθαι· καὶ ἔλεγε μὲν ὡς τὸ πολὺ, τοῖς δὲ βουλομένοις ἔξῃ ἀκούειν.

1. Explain the meaning of *μὴν*, *γε*, *μὲν*, *τε*.
2. Parse *ἦν*, *ἦει*, *πληθούσης*, *συνέσσεσθαι*, *ἔλεγε*, *βουλομένοις*.
3. Write down the first person singular of the imperfect, future, aorist, perfect, and pluperfect, indicative mood, active voice, of *ἀκούω*.
4. What is the force of the optative *μέλλοι*?

## II. Translate—

Ἐθαύμαζε δ' εἴ τις ἀρετὴν ἐπαγγελλόμενος ἀργύριον πράττειτο, καὶ μὴ νομίζοι τὸ μέγιστον κέρδος ἔξειν φίλον ἀγαθὸν κτησάμενος, ἀλλὰ φοβοῖτο, μὴ ὁ γενόμενος καλὸς κάγαθός τῷ τὰ μέγιστα εὐεργετήσαντι μὴ τὴν μεγίστην χάριν ἔξει. Σωκράτης δὲ ἐπηγγείλατο μὲν οὐδενὶ πάποτε τοιοῦτον οὐδέν' ἐπίστανε δὲ τῶν ξυνότων ἑαυτῷ τοὺς ἀποδεξαμένους ἅπερ αὐτὸς ἐδοκίμαζεν εἰς τὸν πάντα βίον ἑαυτῷ τε καὶ ἀλλήλοις φίλους ἀγαθοὺς ἔσσεσθαι. Πῶς ἂν οὖν ὁ τοιοῦτος ἀνὴρ διαφθείροι τοὺς νέους; εἰ μὴ ἄρα ἡ τῆς ἀρετῆς ἐπιμέλεια διαφθορὰ ἔστιν.

1. Give the genitive case, singular, of *τις*, *κέρδος*, *καλός*, *χάρις*, *ξυνότων*, *ἅπερ*, *ἀνὴρ*; and the first person singular, present tense, indicative mood, active voice, of *ἐθαύμαζε*, *ἔξειν*, *γενόμενος*, *εὐεργετήσαντι*, *ἐπηγγείλατο*, *ἀποδεξαμένους*, *ἔστιν*.
2. What is the force of *ἄρα* in the last sentence?

## III. Translate—

Οὐκ οὐκ δοκεῖ σοι ὁ ἐξ ἀρχῆς ποιῶν ἀνθρώπους ἐπ' ὠφελείᾳ προσθεῖναι αὐτοῖς δι' ὧν αἰσθάνονται ἕκαστα, ὀφθαλμοὺς μὲν, ὥστε ὁρᾶν τὰ ὁρατά, ὠτα δέ, ὥστε ἀκούειν τὰ ἀκουστά; ὀσμών γε μὴν, εἰ μὴ ῥίνας προστετέθησαν, τί ἂν ἡμῖν ὄφελος ἦν; τίς δ' ἀν' αἰσθησῆς ἦν γλυκέων καὶ δριμέων καὶ πάντων

τῶν διὰ στόματος ἠδέων, εἰ μὴ γλῶττα τούτων γνώμων  
ἐνεργάσθη; Πρὸς δὲ τούτοις οὐ δοκεῖ σοι καὶ τόδε προνοίας  
ἔργον εὐκέναι, τό, ἐπεὶ ἀσθενὴς μὲν ἐστὶν ὄψις, βλεφάροις  
αὐτὴν θυρώσαι. Ἄ, ὅταν μὲν αὐτῇ χρῆσθαι τι δέη, ἀναπε-  
τάννυται, ἐν δὲ τῷ ὕπνῳ συγκλείεται; ὡς δ' ἂν μηδὲ ἀνεμοὶ  
βλάπτωσιν, ἠθμὸν βλεφαρίδας ἐμφύσαι· ὀφρύσι τε ἀπο-  
γυισῶσαι τὰ ὑπὲρ τῶν ὀμμάτων, ὡς μηδ' ὁ ἐκ τῆς κεφαλῆς  
ιδρῶς κακουργῆ· τὸ δὲ τὴν ἀκοὴν δέχεσθαι μὲν πάσας  
φωνάς, ἐμπίπασθαι δὲ μήποτε.

1. Parse προσθεῖναι, προστετέθησαν, ἐνεργάσθη, εὐκέναι, θυρώσαι, κακουργῆ, ἐμπίπασθαι.
2. Distinguish οὔκουν from οὐκοῦν; τίς from τις; ὡς from ὡς; οὐ from μή.

#### IV. Translate into Greek Prose—

Sokrates was a very good man. His accusers said that he did not believe in the gods, and that he corrupted the young men of Athens; but at his trial it was made clear that this accusation was false. Why, then, did the Athenians put him to death? We may answer—Because he hated *humbug* (ἀλαζονεία), and made for himself many enemies by speaking the truth too plainly.

### 4. FRENCH.

MR. J. A. HARTLEY, B.A., B.Sc., and MR. J. WALTER TYAS.

Time—Two hours.

(Note.—In order to obtain a credit in French candidates must satisfy the Examiners in both parts of this paper.)

#### PART I.

##### 1. Translate into English—

L'enfant s'agenouilla sur la jupe de la jeune fille, joignit ses petites mains, et se mit à réciter sa prière, d'abord avec attention et ferveur, car il savait très bien le commencement; puis avec plus de lenteur et d'hésitation, et enfin répétant mot à mot, ce que lui dictait la petite Marie, lorsqu'il arriva à cet endroit de son oraison, où le sommeil le gagnant chaque soir, il n'avait jamais pu l'apprendre jusqu'au bout. Cette fois encore le travail de l'attention et la monotonie de son propre

accent produisirent leur effet accoutumé, il ne prononça plus qu'avec effort les dernières syllabes, et encore après se les être fait répéter trois fois ; sa tête s'appesantit et se pencha sur la poitrine de Marie ; ses mains se détendirent, se séparèrent et retombèrent ouvertes sur ses genoux.

Parse the words—*Joignit, se mit, savait, and ouvertes* ; and give the present infinitive, participle present, participle past, and the first person singular indicative of the present and perfect definite of each.

*Après se les être fait répéter trois fois.* Explain this construction.

## II. Translate—

Grande fut la surprise de la mère Maurice ; c'était la dernière à laquelle elle eût songé. Mais elle eut la délicatesse de ne point se récrier, et de faire mentalement ses commentaires. Puis, voyant que son silence accablait Germain, elle lui tendit sa corbeille en lui disant. "Alors est-ce une raison pour ne point m'aider dans mon travail ? Portez donc cette charge, et venez parler avec moi. Avez vous bien réfléchi, Germain ? êtes vous bien décidé ?"

"Hélas ! ma chère mère, ce n'est pas comme cela qu'il faut parler ; je serais décidé si je pouvais réussir ; mais comme je ne serais pas écouté, je ne suis décidé qu'à m'en guérir si je peux."

(1) *Faire.* Give the first person plural of each tense of the indicative mood.

(2) *En lui disant.* Parse *en*.

(3) *Venez.* Conjugate the tense.

(4) *Il faut.* Parse this, and give two French expressions for *I must go out*.

(5) *M'en guérir.* Parse *en*.

## III. Translate—

(a) On ne sait pas combien une famille peut s'accroître, et quand la ruche est trop pleine qu'il faut essaimer, chacun son gîte à emporter son miel.

(b) Germain ayant donné d'avance le signalement de la Grise et s'étant convaincu qu'il s'agissait bien d'elle, se mit en route pour aller rechercher son bât.

(c) Elle avait l'air hardi et content d'elle-même, et ses cornettes garnies d'un triple rang de dentelle, son tablier de soie, et son fichu de blonde noire étaient peu en rapport avec l'idée qu'il s'était faite d'une veuve sérieuse et rangée.

- IV. Give the meanings of the following words:—*Chétif*; *des mottes de terre*; *la chèvre*; *avaler*; *glisser*; *la caille*; *secouer*; *écraser*; *le verger*; *le foyer*.
- V. Write in full the present indicative of *devoir* and *acheter*; the present subjunctive of *pouvoir* and *mourir*. Also write the first persons singular of the future indicative of *Cueillir*, *voir*, and *venir*.
- VI. Give the feminine of *grec*, *malin*, *secret*, *faux*, *mou*.

## PART II.

## VII. Translate—

Il était une fois une petite fille qui s'appelait Lucie. Elle allait passer tous les jeudis chez sa grand-mère; et comme il y'avait un beau et grand jardin, la petite courait, sautait, respirait à pleins poumons l'air embaumé du beau jardin.

Elle ne détruisait jamais rien, de sorte <sup>(1)</sup> qu'on ne lui avait rien défendu. Un jour elle aperçoit sur un petit pêcher une pêche mûre. Cette pêche était blanche, rose, violette, veloutée, et semblait délicieuse. Lucie pense aussitôt à sa grand-mère, et désireuse de lui porter ce beau fruit, elle étend la main et le cueille. Mais en dessous de la pêche ses petits doigts sentent quelque chose de souple, de mou; elle regarde et jette la pêche en poussant un cri, et s'enfuyant à toutes jambes.

Ce quelque chose de mou, c'était . . . une chenille! <sup>(2)</sup>

(1) De sorte que=so that.  
(2) Chenille=a caterpillar.

## VIII. Translate into French—

- (1) Which of these books do you wish for?
- (2) Do not give them to her, but give them to me.
- (3) If you have any money give some to that poor man.
- (4) I know neither the woman nor the place (*endroit*).



(5) I shall fancy (*se figurer*) that I am still at home.

(6) He is right, replied little Marie, you told him that.

(7) Germain did not answer. He put his head between his two hands, and it was impossible for little Marie to know whether he was weeping, was sulky, (1) or had fallen asleep. She was a little disturbed (2) to see him so gloomy (3) and not be able to guess (4) what was passing in his mind ; but she did not dare to speak to him any more, and as she was too much surprised at what had just happened (5) to have any wish to fall asleep again, she impatiently waited for the day, still minding (6) the fire and watching the child.

(1) *bouder* ; (2) *inquiet* ; (3) *morne* ; (4) *deviner* ;  
(5) *se passer* ; (6) *soigner*.

## 5. GERMAN.

MR. VON TREUER, LL.B., AND MR. J. A. HARTLEY, B.A., B.Sc.

Time—Two hours.

*NOTE.*—To obtain a credit in German Candidates must satisfy the Examiners in both parts of this paper.

### PART I.

#### I. Translate—

Wir waren indeß bis an ein großes, prachtvolles Haus gekommen. Mein Begleiter zeigte es mir als das Ziel unſers nächſtlichen Spaziergangs. Wir gingen an dem Hauptthor des Hauſes vorbei, traten in eine kleine Pforte, die der Unbekannte ſorgfältig hinter ſich zumachte, und stiegen nun im Finſtern eine enge Wendeltreppe hinan. Sie führte in einen ſpärlich erleuchteten Gang, aus welchem wir in ein Zimmer gelangten, das eine Lampe, die an der Decke befeſtigt war, erleuchtete.

(a). Give the principal tenses of traten, stiegen, gelangten.

(b). Parse welchem, das, Decke.

(c). Write in two columns the compound verbs in the above passage, distinguishing separable from inseparable prefixes.

#### II. Translate—

Muſtaſſa war vor Schrecken und Wuth außer ſich: jetzt, wo er ſich am ſicheren Ziel ſeiner Wünſche glaubte, ſollte die

Elende kommen und sie verreiteln; es war nur ein Mittel, das seinen Plan retten konnte, er mußte das kleine Ungethüm tödten; mit einem Sprung fuhr er daher aus dem Bett auf den Kleinen zu, doch dieser, der etwas solches geahnt haben mochte, ließ die Lampe fallen, daß sie verlöschte, und entsprang im Dunkeln, indem er mörderisch um Hilfe schrie.

- (a). Write in full the tenses ließ, and schrie.  
 (b). Decline with the definite article Bett, and Lampe.  
 (c). Explain the force of the prefixes ver- in verreiteln, and ent- in entsprang.

### III. Translate—

- (a). Ich möchte auch gerne zugleich frei sein.  
 (b). Ich halte es mit Eurer Erlaubniß nicht mehr lange aus, Ihr fliegt gar zu schnell.  
 (c). Es mochte wieder ungefähr elf Uhr sein, als es uns gewaltig zu schläfern anfang.  
 (d). Doch diese schienen das Zeichen auf dem Felde erblickt zu haben, sie beugten plötzlich von ihrer Richtung auf das Lager ab, und zogen in einem großen Bogen auf der Seite hin.

## PART II.

### IV. Translate—

Ein Landmann ging mit seinem kleinen Sohne Tobias auf den Acker hinaus, um zu sehen, ob das Korn bald reif sei.

„Vater, wie kommt's doch,“ sagte der Knabe, „daß einige Halme sich so tief zur Erde neigen, andere aber den Kopf so aufrecht tragen? Diese müssen wohl recht vornehm sein, die andern, die sich so tief vor ihnen bücken, sind gewiß viel schlechter?“

Der Vater pflückte ein paar Aehren ab und sprach: „Sieh' diese Aehre hier, die sich so bescheiden neigte, ist voll der schönsten Körner; diese aber, die sich so stolz in die Höhe streckte, ist ganz taub und leer.“

### V. Translate into German—

- (1.) I have not seen you for a long time. Where have you been?  
 (2.) I have been in the country and I am going to Melbourne to-morrow.  
 (3.) Do you think your brother will be able to go with you?

## VI. Translate into German—

(a.) As he had a good horse and no luggage he hoped to reach this town at the end of the sixth day. But on the evening of the fourth day as he rode on his way quite alone, three men suddenly fell upon him. He observed that they were well armed and strong, so he called out to them that he would give himself up to them.

(b.) When Selim Baruch had finished his story, the merchants professed<sup>(1)</sup> themselves very pleased with it. "Really the afternoon has gone without our observing it," said one of them, while he drew back the cover of the tent. "The evening wind blows cool."

(1) Sich bezeugen.

## 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 carry as a rule many 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.*

## PART I.

- I. What is meant by the words "Plane Surface?" What are the different kinds of four-sided figures?
- II. If the equal sides of an isosceles triangle are produced, the angles on the other side of the base are equal to one another.
- III. If one side of a triangle is greater than another then the angle opposite to the greater side is greater than the angle opposite to the less.

- IV. All the interior angles of any rectilineal figure, together with four right angles, are equal to twice as many right angles as the figure has sides.

## PART II.

- V. The complements of the parallelograms about the diagonal of any parallelogram are equal to one another.

If the parallelogram is a rhombus, show that the sides of the one complement are equal to the sides of the other each to each. Show, however, that if the other side of the paper, on which you have drawn your figure, were black, and you were to cut out the complements with a pair of scissors, you could not generally fit one on top of the other, unless you turned one of them over so as to have its black side up. Would there be any exceptions to this?

- VI. ABC is a triangle, and AB is greater than AC. The angles ABC and ACB are bisected by straight lines, BD and CD, which meet at D. DE is drawn perpendicular to BC. Show that the angle BDE is greater than the angle CDE.

- VII. Enunciate the propositions in Euclid's Second Book which are devoted to finding how much the square on one side of a triangle exceeds or falls short of the sum of the squares on the other two sides.

If in a triangle AB is equal to AC and BD be drawn perpendicular to the side AC, then  $BC^2 = 2CD \cdot CA$ .

## PART III.

- VIII. Two circles intersect in the point O. Show how to draw through O a straight line meeting one circle in D and the other in E, so that  $OD = DE$ .
- IX. If the opposite angles of a quadrilateral be equal to two right angles show that a circle may be described about the quadrilateral.
- X. Show how to describe a hexagon in a given circle. How would you construct a hexagon if you were given the positions of two adjacent vertices? How, if you were given the positions of two vertices not adjacent?

## 6. ALGEBRA.

PROFESSOR BRAGG, M.A.

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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 many more marks than the others.)

## PART I.

- I. Find the value of  $7n^2 - 3an + (3 - n)(a + 2)$  when  $n = \frac{3}{4}$ ,  
 $a = -\frac{2}{5}$ .
- II. Simplify the expressions
- (i.)  $abc - (n - a)(n - b)(n - c) + a(b + c)(n - a)$ .  
(ii.)  $(n^3 - 3n^2y + 4y^3) \times (n^2 + ny + y^2) \div (n - 2y)$ .  
(iii.)  $\frac{x^3 + (1 + a)ab + b^3}{a^4 - b^2}$ .
- III. Divide  $n^5 + 8n^3 + 2n^2 + 7n + 2$  by  $n^2 + 1$ . From the result deduce the quotient when 108272 is divided by 101.

## PART II.

IV. Solve the equations

(i.)  $\frac{x + a}{b} + \frac{x}{2a} = \frac{a^2 - b^2}{ab} + \frac{2x}{b}$ .  
(ii.)  $\frac{x - 3}{2} + \frac{18 - 2x}{3} = \frac{x + 3}{3}$ .

- V. Find that number of which the half is greater than the third part by 6.
- VI. A man starts from the University to walk to Mitcham at the rate of four miles an hour; and at the same time another man starts from Mitcham to walk to the University at the rate of three miles an hour; if the distance between the two places be four miles how far from the University will they meet? Again, if, as soon as they have reached their respective destinations they turn round and walk back again without altering their rates of walking, where will they meet the second time?

## PART III.

- VII. What is meant by dividing one quantity by another? How is it that dividing by  $\frac{1}{2}$  is equivalent to multiplying by 2?
- VIII. Solve the equations :
- (i.)  $ax + by = bx + ay = 1.$
- (ii.)  $\sqrt{x+1} - \sqrt{3x+1} = -2.$
- IX. At a distance of three feet from the bank of a river is growing a reed ; the part above the water is just one foot in length. I reach out my hand and pull the top towards the bank ; when the top of the reed touches the bank it is just on a level with the water, the reed remaining un-bent above the root? How deep is the water where the reed is growing?
- X. Find the square root of  $9 - 4\sqrt{7}.$

Rationalize the denominator of the fraction

$$\frac{3 - \sqrt{5}}{1 + \sqrt{3} + \sqrt{5}}$$


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## 7 (A) ELEMENTARY PHYSICS.

PROFESSOR BRAGG, M.A.

Time—Two hours.

- I. Describe some way of measuring the velocity of sound.
- II. Draw a longitudinal section of an organ pipe. What is it in the pipe that makes the sound?
- III. "As a liquid must always be contained in a solid vessel the expansion of liquids may be said to be of two kinds—either apparent or real." Explain this statement. Has this any effect on the readings of thermometers?
- IV. What is meant when it is said that the specific heat of solids is greater at a high than at a low temperature?
- V. Describe the grease-spot photometer. If I place a standard candle one foot away on one side of it, and on the other side a standard candle 2 feet away and a gas flame 3 feet

away, and I then find the two sides equally illuminated, how many candles is the gas flame equal to?

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- VI. Describe two ways of proving that white light is really composed of a number of differently coloured lights blended together.
- VII. What is an electrical condenser?
- VIII. If I place a magnet near a piece of iron, it induces magnetism in the iron, and the iron tends to move towards the magnet. Why is this? For the magnet though it attracts the one pole of the piece of iron repels the other.

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## 7 (b). CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Two hours.

*(Candidates are expected to write formulæ and equations wherever possible.)*

- I. A colourless gas is passed over heated oxide of copper; metallic copper and water are the only products. What is the name of the gas, why did it receive that name, and what is the weight of one litre measured at  $0^{\circ}\text{C}$  and at a pressure of 760 m.m.?
- II. A mixture of common salt, sulphuric acid, and black oxide of manganese is gently heated. What substances are formed, and what is the effect of passing the gaseous product into water and exposing the liquid so obtained to sunlight? Are there any other compounds which would produce an effect similar to that produced by the black oxide of manganese? Explain your answer.
- III. A mixture of sulphur dioxide and oxygen is passed over spongy platinum. What compound is formed, what is the effect of water upon it, and how would you detect it in solution?
- IV. Electric sparks are passed through dry air; red fumes are seen, and if a little water be added the latter is found to contain an acid. Explain what takes place, give the

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- name of the acid, and describe how you would shew its presence.
- V. What is the most important constituent of the liquid floating on the surface of the tar in the tar-well of a gasworks? What valuable manure is made from this liquid, and how?
- VI. Ordinary phosphorus is gently heated in a small flask with a strong solution of caustic potash. Describe the characteristic properties of the gaseous compound which is produced. What substance remains behind in the flask?
- VII. Carbon monoxide is burnt in air. What substance is produced? Name any minerals you know of which contain it, and explain the methods by which it can be obtained from such minerals.

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### 7 (c). ELEMENTARY BOTANY.

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

Time—Two hours.

- I. What is the nature of the *tendrils* of the *pea-plant*?
- II. Describe the *bracts* of the *sow-thistle*, *lily*, and *wild-oat*.
- III. Some plants have one, others have two kinds of flowers. Explain this.
- IV. What is the number and position of the stamens in each of the following plants:—Wallflower, pea, sow-thistle, snap-dragon, and lily; and state any peculiarity which any of them may have.
- V. Describe all the parts of the ripe ovary of a wallflower.
- VI. What are the resemblances and differences between the leaf of a *wallflower* and a *lily*?
- VII. Fill up the "Schedule" in respect of the accompanying plant.



7 (c). ELEMENTARY PHYSIOLOGY.

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E. C. STIRLING, M.A., M.D.

Time—Two hours.

- I. Where are the following structures found in the body and what purposes do they serve?  
Tendons, ligaments, fat, cartilage, connective tissue, epithelium, mesentery, periosteum.
- II. What are the waste products of the body; how and where are they formed, and by what means are they respectively got rid of?
- III. Describe the position, structure, and uses of the diaphragm.
- IV. Why is it that the blood always circulates in the same direction?
- V. What happens to the blood in the lungs?

Explain why it is that the atmosphere of a crowded and ill-ventilated room is harmful.

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NOVEMBER, 1888.

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SENIOR PUBLIC EXAMINATION.

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DIVISION A.

Senior Public  
Examination,  
November, 1888.

(A) ENGLISH HISTORY—FIRST TWO STUARTS.

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 Hampton Court Conference.
  - (b) How did it end, and what was the effect upon the relations between James I. and the Commons?
  - (c) How far did James I. succeed in bringing about a union between England and Scotland?
- II. (a) What was the origin of the first important breach between James I. and the Commons?
  - (b) What relations did it bring about between the King and continental princes?
  - (c) What effect had these relations upon Parliament and the nation?
  - (d) What was the political object of the journey to Madrid?
- III. (a) When did the Long Parliament meet?
  - (b) Give an account of the principal events in this Parliament from its meeting to the breaking out of the war.
  - (c) "It was clearly a revolutionary position which the House had assumed." Examine and illustrate this statement.

- IV. (a) Give the story of the arrest of the five members.  
 (b) In what sense is Sir John Eliot the martyr of the doctrine of parliamentary supremacy?  
 (c) Give a sketch of his life.
- V. (a) Explain fully—Petition of Right.  
 (b) Grand Remonstrance.  
 (c) Habeas Corpus.
- VI. Enumerate, in order, the engagements between the Royalist and Parliamentary forces during the Civil War, with their immediate consequences, and their effect upon the issue of the struggle.
- VII. Give a short sketch of the lives and career of any three of the following :—Pym, Wentworth, Laud, Falkland, Fairfax, and Prince Rupert.
- VIII. Give a short narrative of events from the battle of Naseby to the execution of Charles I.  
 By what Court was Charles Stuart tried?  
 What objection did the King take to the jurisdiction of the Court, and was the objection constitutionally valid?  
 What do you know of Eikon Basilike?

## PART II.

*(Only two of the following questions are to be answered.)*

- IX. Give the history of the Star Chamber and High Commission Courts, explaining their respective constitutions, jurisdictions, and cause of abolition.  
 In what way could the existence of such Courts act beneficially, and under what conditions?
- X. What were the questions of ship-money, and tonnage and poundage?  
 How were they decided?  
 "The question of tonnage and poundage was the question of the Sovereignty of England." Prove this statement.
- XI. Why did the conduct of Charles I. cause greater discontent than that of Henry VIII. and Elizabeth? What was the essential difference between the Tudors and Stuarts?

in the principles of their dealings with Parliament and the Nation? "Charles died, after all, the martyr of the people." Examine this statement.

- XII. What is the difference between proceeding against a state offender by impeachment and by bill of attainder? Give instances under either form in the reigns of James I. and Charles I. What is the constitutional import of these proceedings?

## DIVISION A.

## (B) ENGLISH LITERATURE.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Two hours.

- I. On what grounds does Bacon deem the fear of death unreasonable?
- II. What arguments does he advance against the indulgence of revenge?
- III. "There be three degrees of this Hiding and Vailing of a Man's Selve." What are they?
- IV. "Certainly, the best Meane to cleare the Way in this same Wood of Suspicious is——." Complete the sentence.
- V. What is Bacon's opinion of convict settlements, and what suggestions does he offer regarding the government of a colony? Why does he disapprove of mining in colonies?
- VI. What according to Bacon is the only thing which "doth alter and subdue nature"?
- VII. What does Bacon state to be the special advantages respectively of studying Mathematics, Law, and Logic?
- VIII. "The parable of Pythagoras is darke, but true, *Cor ne edito.*" Explain.
- IX. "Quips and cranks, and wanton Wiles,  
Nods and Becks, and wreathed Smiles."  
Explain the words *quips, cranks, becks,*  
Why are smiles called wreathed?

- X. "And the mute Silence *hist* along  
'Less Philomel will deign a song."

Parse *hist* and *less*.

- XI. "But peaceful was the night  
Wherein the Prince of Light  
His reign of peace upon the earth began."

Reproduce as accurately as you can Milton's description of this night.

- XII. Write notes on the following :—

(a) That sanguine flower inscribed with woe.

(b) To scan  
With Midas' ears, committing short and long.

(c) New rebellions raise  
Their Hydra heads, and the false North displays  
Her broken league to imp their serpent wings.

- XIII. Describe Milton's sonnet on the Massacre in Piedmont, or either of the sonnets referring to his blindness.

- XIV. What circumstances suggested to Milton the composition of *Lycidas*. Give a brief account of the poem.

## DIVISION A.

### 2. LATIN.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

- I. Plurimum audaciæ ad pericula capessenda, plurimum consilii inter ipsa pericula erat. Nullo labore aut corpus fatigari aut animus vinci poterat. Caloris ac frigoris patientia par ; cibi potionisque desiderio naturali, non voluptate modus finitus ; vigiliarum somnique nec die nec nocte discriminata tempora ; id, quod gerendis rebus superesset, quieti datum ; ea neque molli strato neque silentio accersita ; multi sæpe militari sagulo opertum humi iacentem inter custodias stationesque militum conspexerunt. Vestitus nihil inter æquales excellens ; arma atque equi conspiciabantur. Equitum peditumque idem longe primus erat ; princeps in prælium ibat, ultimus conserto prælio excedebat.

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- II. Ratem unam ducentos longam pedes, quinquaginta latam a terra in annem porrexerunt, quam, ne secunda aqua deferretur, pluribus validis retinaculis parte superiore ripæ religatam pontis in modum humo iniecta constraverunt, ut beluæ audacter velut per solum ingrederentur. Altera ratis æque lata, longa pedes centum, ad traiciendum flumen apta, huic copulata est; tum elephantum per stabilem ratem tanquam viam, prægredientibus feminis, acti ubi in minorem applicatam transgressi sunt, extemplo resolutis, quibus leviter annexa erat, vinculis, ab actuariis aliquot navibus ad alteram ripam pertrahitur; ita primis expositis, alii deinde repetiti ac traieci sunt.
- III. Fessis tædio tot malorum nivis etiam casus, occidente iam sidere Vergiliarum, ingentem terrorem adiecit. Per omnia nive oppleta quum, signis prima luce motis, segniter agmen incederet, pigritiaque et desperatio in omnium vultu emineret, prægressus signa Hannibal in promuntorio quodam, unde longe ac late prospectus erat, consistere iussis militibus Italiam ostentat.
- IV. Plures deinde in omnes partes eruptiones factæ; et quæ flumen petiere, aut gurgitibus absumpti sunt aut intercuntationem ingrediendi ab hostibus oppressi; qui passim per agros fuga sparsi erant, vestigia cedentis sequentes agminis Placentiam contendere; aliis timor hostium audaciam ingrediendi flumen fecit, transgressisque in castra pervenerunt. Imber nive mixtus et intoleranda vis frigoris et homines multos et iumenta et elephantos prope omnes absumpsit.
- V. *Quum Boii defecerunt.* Under what circumstances can *quum* be used with the indicative?
- VI. Mark the quantity of the penultimate syllable in the following words:—*Trucido, Maritimus, Inquisitus, Transfuga, Possident.*
- VII. Write a short account of Hannibal's struggle with Rome from the capture of Saguntum to the battle of Zama.
- VIII. Describe the situation of and give the modern names of—*Saguntum, Mutina, Gades, Melita.*
- IX. At what time did Livy write his history? What are his merits and defects as an historian?
- X. Translate into Latin Prose—  
“It is found on record, in some ancient documents, that at one time the strength, and energy, and influence of the

Roman and of the Carthaginian people were equal. A proof may be deduced from the following anecdote. When Q. Fabius, the Roman general, addressed a letter to the Carthaginians, he stated, 'that the Roman people sent them a spear and a *caduceus*, the emblems of war and peace; that they might choose which they pleased; and whichever they chose, they might consider to be the only one sent.' The Carthaginians replied, "that they chose neither, but that the messengers might leave whichever they preferred, and that they would regard the one left as their choice.'"

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## DIVISION A.

### 3. GREEK.

PROFESSOR BOULGER, M.A., D.LITT.

Time—Three hours.

#### I. Translate—

Ἴθι νῦν, ᾧ φίλε Εὐθύφρον, δίδαξον καὶ ἐμέ, ἵνα σοφώτερος γένομαι, τί σοι τεκμήριόν ἐστιν, ὡς πάντες θεοὶ ἡγούνται ἐκείνους ἀδίκως τεθνάναι, ὅς ἂν θητεύων ἀνδροφόνος γενόμενος, ξυνδεθείς ὑπὸ τοῦ δεσπότη τοῦ ἀποθανόντος, φθάσῃ τελευτήσας διὰ τὰ δεσμά, πρὶν τὸν ξυνδῆσαντα παρὰ τῶν ἐξηγητῶν περὶ αὐτοῦ πυθέσθαι, τί χρὴ ποιεῖν, καὶ ὑπὲρ τοῦ τοιούτου δὴ ὀρθῶς ἔχει ἐπεξιέναι καὶ ἐπισκῆπτεσθαι φόνου τὸν υἱὸν τῷ πατρί; Ἴθι, περὶ τούτων πειρῶ τί μοι σαφῆς ἐνδείξασθαι, ὡς παντὸς μᾶλλον πάντες θεοὶ ἡγούνται ὀρθῶς ἔχειν ταύτην τὴν πράξιν. κἂν μοι ἰκανῶς ἐνδείξῃ, ἐγκωμιάζων σε ἐπὶ σοφίᾳ οὐδέποτε παύσομαι.

- (a) Parse—ἴθι, δίδαξον, γένομαι, τεθνάναι, ξυνδεθείς, φθάσῃ, πυθέσθαι, ἐπεξιέναι, πειρῶ, ἐνδείξῃ.
- (b) What conjunction must, from the preceding clause, be understood with the clause beginning—καὶ ὑπὲρ τοῦ τοιούτου δὴ ὀρθῶς ἔχει ἐπεξιέναι?
- (c) ὅς ἂν φθάσῃ. What is the force of ἂν?
- (d) πρὶν πυθέσθαι. Write a note on the use of πρὶν with the indicative, subjunctive, optative, and infinitive moods. Distinguish πρὶν with present infinitive from πρὶν with the aorist infinitive.
- (e) Distinguish πράξις from πράγμα.

## II. Translate—

ΣΩ.—“Ὅρα δὴ τὸ μετὰ τοῦτο. εἰ γὰρ μέρος τὸ ὄσιον τοῦ δικαίου, δεῖ δὴ ἡμᾶς, ὡς ἔοικεν, ἐξευρεῖν τὸ ποῖον μέρος ἂν εἴη τοῦ δικαίου, τὸ ὄσιον. εἰ μὲν οὖν σὺ με ἠρώτας τι τῶν νῦν δὴ, ὅσον ποῖον μέρος ἐστὶν ἀριθμοῦ τὸ ἄρτιον καὶ τίς ὢν τυγχάνει οὗτος ὁ ἀριθμὸς, εἶπον ἂν, ὅτι ὅς ἂν μὴ σκαληνὸς ἦ, ἀλλ’ ἰσοσκελὴς ἦ οὐ δοκεῖ σοι ;

ΕΥΘ.—“Ἐμοιγε.

ΣΩ.—Πειρώ δὴ καὶ σὺ ἐμὲ οὕτω διδάξαι, τὸ ποῖον μέρος τοῦ δικαίου ὄσιόν ἐστιν, ἵνα καὶ Μελλήτῳ λέγωμεν μηκέθ’ ἡμᾶς ἀδικεῖν μηδ’ ἀσεβείας γράφασθαι, ὡς ἱκανῶς ἤδη παρὰ σοῦ μαθητικότητας τά τε εὐσεβῆ καὶ ὄσια καὶ τὰ μῆ.

ΕΥΘ.—Τοῦτο τοίνυν ἔμοιγε δοκεῖ. ὦ Σώκρατες, τὸ μέρος τοῦ δικαίου εἶναι εὐσεβές τε καὶ ὄσιον, τὸ περὶ τὴν τῶν θεῶν θεραπείαν· τὸ δὲ περὶ τὴν τῶν ἀνθρώπων τὸ λοιπὸν εἶναι τοῦ δικαίου μέρος.

- (a) What is the force of νῦν δὴ ?  
 (b) εἶπον ἂν. Why is ἂν used here with indicative ?  
 (c) Distinguish περὶ with accusative from περὶ with genitive.

## III. (a) What distinction is drawn by Sokrates between δέος and αἰδώς ?

- (b) Give specimens of Sokratic irony.  
 (c) State the various definitions of piety (τὸ ὄσιον) proposed by Euthyphro, and Sokrates’ reasons for deeming them all unsatisfactory.

## IV. Translate—

ὁ Σωκράτης ἄριστος ἦν τῶν Ἑλλήνων. οἱ δὲ Ἀθηναῖοι ἔκριναν αὐτὸν ὡς διαφθείραντα τοὺς νεούς. ἐρωτηθεὶς δὲ ὁ τι ἀξιόσ ἐστι παθεῖν, ἔλεγε, “σίτησιν ἐν τῷ Πρυτανείῳ.” οἱ δὲ Ἀθηναῖοι ὀργισθέντες θανάτου ἀξιον εἶναι ἔφασαν. ὁ οὖν Σωκράτης πῶν τὸ κώνειον ἀπέθανε. οὕτω γὰρ οἱ Ἀθηναῖοι ἀπ-έ-κτεινον τοὺς κακούργους.

## V. Translate into Greek Prose—

The murdered man was a servant of mine. In a fit of drunken rage, he killed one of his fellow-servants. My father bound the man hand and foot and cast him into a ditch. He then sent a messenger to Athens to ascertain what he should do. In the meantime he took no thought of the criminal, who died from hunger and exposure before the messenger returned : and now, urged by a strong sense



of justice, I am prosecuting my own father on a charge of murder.

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- VI. (a) Write an epitome of Athenian history from the Battle of Marathon to the Death of Sokrates.
- (b) At what time did Sokrates live? Sketch his character, and mention some of his most illustrious contemporaries.

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DIVISION A.

4. FRENCH.

MR. J. A. HARTLEY, B.A., B.Sc., and MR. J. WALTER TYAS.

Time—Three hours.

(*Note.*—*In order to obtain a credit in French, candidates must satisfy the Examiners in both parts of this paper.*)

PART I.

I. Translate—

FROSINE.—Où j'ai raison ; je le sais bien. C'est là ce qu'il faudrait ; mais le diantre est d'en pouvoir trouver les moyens. Attendez ; si nous avons quelque femme un peu sur l'âge, qui fût de mon talent, et jouât assez bien pour contrefaire une dame de qualité, par le moyen d'un train fait à la hâte et d'un bizarre nom de marquise ou de vicomtesse, que nous supposerions de la basse Bretagne, j'aurais assez d'adresse pour faire accroire à votre père que ce serait une personne riche, outre ses maisons, de cent mille écus en argent comptant ; qu'elle serait éperdument amoureuse de lui, et souhaiterait de se voir sa femme, jusqu' à lui donner tout son bien par contrat de mariage ; et je ne doute point qu'il ne prêtât l'oreille à la proposition. Car enfin, il vous aime fort, je le sais ; mais il aime un peu plus l'argent ; et quand, ébloui de ce leurre, il aurait une fois consenti à ce qui vous touche, il importerait peu ensuite qu'il se désabusât, en venant à vouloir voir clair aux effets de notre marquise.

—Molière *L'Avare* ; Act IV., Scene 1.

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## II. Translate—

(a) Qui est plus criminel à votre avis, ou celui qui achète un argent, dont il a besoin, ou bien celui qui vole un argent, dont il n'a que faire. ?

(b) C'est bien à toi, pendar, à me demander des raisons ! Sors vite, que je ne t'assomme.

(c) Vous avez fait, madame, ce que je devois faire, et c'était à moi de vous prévenir.

III. When did Molière live ! State briefly the part taken in *L'Avare* by Valère.

## IV. Translate—

DESTOURNELLES.—La mèche est allumée . . . gare la mine ! . . . nous allons enfin voir, madame la baronne, à qui de nous deux restera le champ de bataille. L'exploit est libellé . . . Durousseau est exact . . . (*il regarde sa montre*). Trois heures . . . le poulet doit être entre les mains de monsieur le marquis. Bernard est à Poitiers, il ne sait rien, ne se doute de rien ; avant qu'il soit de retour, je serai maître de la place. Encanailler le marquis, confiner la baronne dans son petit castel, unir deux braves jeunes gens, qui s'aiment, voilà ma vengeance, voilà mon but, et je l'atteindrai, morbleu ! . . . Le marquis. . . . attention !

—Mademoiselle de la Seiglière ; Act IV., Scene I.

V. Give the plurals of the following words :—*Amiral, carnaval, bétail, beau-frère, chef-d'œuvre, timbre-poste*, and distinguish between

|                       |   |
|-----------------------|---|
| une certaine nouvelle | } |
| une nouvelle certaine |   |
| une fausse clef       | } |
| une clef fausse       |   |
| un pauvre écrivain    | } |
| un écrivain pauvre    |   |
| un grand homme        | } |
| un homme grand        |   |

VI. Construct short sentences to show the use of *qui, quel, lequel, quoi*, used relatively and interrogatively, and translate each sentence.

VII. Form adverbs from the following adjectives :—*Apparent, fou, lent, aveugle, gentil*.

- VIII. Write in full the present indicative of *croître, croire, plaire*; the preterite indicative of *vivre, suivre, naître*; and the imperative of *tenir, vaincre, taire*.

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### FRENCH HISTORY.

(Only two of these questions need be attempted by candidates.)

- IX. What was the Edict of Nantes; by whom was it promulgated, and with what object? When was it revoked, and what were the consequences?
- X. Give a sketch of the policy of Cardinal Richelieu and of his successor, Mazarin. What was the war of the Fronde, and why was it so called?
- XI. State some of the principal causes which led to the first French Revolution, and mention what you know of Mirabeau, Danton, and Robespierre.
- XII. Briefly trace the course of events in France from the second restoration of Louis XVIII. to the Revolution of 1848.

### PART II.

- XIII. Translate into English the following poem by Victor Hugo, describing a conversation between himself and his little grand-daughter:—

Jeanne songeait, sur l'herbe assise, grave et rose ;  
Je m'approchai : " Dis-moi si tu veux quelque chose,  
Jeanne." Car j'obéis a ces charmants amours,  
Je les guette,<sup>(1)</sup> et je cherche à comprendre toujours  
Tout ce qui peut passer par ces divines têtes."  
Jeanne m'a répondu : " Je voudrais voir des bêtes."  
Alors je lui montrai dans l'herbe une fourmi : <sup>(2)</sup>  
" Vois " ! Mais Jeanne ne fut contente qu'à demi  
" Non ! les betes, c'est gros " <sup>(3)</sup> me dit-elle.

Leur rêve,  
C'est le grand. L'Océan les attire à sa grève,<sup>(4)</sup>  
Les berçant de son chant rauque, et les captivant  
Par l'ombre, et par la fuite effrayante du vent ;  
Ils aiment l'épouvante ; il leur faut le prodige.  
" Je n'ai pas d'éléphant sous la main," répondis-je.  
" Veux-tu quelque autre chose ! ô Jeanne, on te le doit !  
Parle"—Alors Jeanne au ciel leva son petit doigt.  
" Ça " dit-elle.—C'était l'heure où le soir commence :  
Je vis à l'horizon surgir la lune immense.

Victor Hugo—L'Art d'être grand-père.

- (1) Guetter=to watch.  
(2) Fourmi=Ant.  
(3) C'est gros=I mean big ones.  
(4) Grève=shore.

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XIV. Translate into French—

- (a) I have been here six weeks.  
 (b) The merchant whose house I have bought has failed.  
 (c) I have just had my hair cut.  
 (d) I shook hands with your sister early yesterday morning.  
 (e) He has answered all the questions they have put to him.

XV. Translate into French—

And in order to do nothing, Monsieur, must one eat nothing? It would be much better for them, poor beasts, to have plenty of work and plenty to eat. It breaks my heart to see them so thin! For, indeed, I have some feeling for my horses, so that I fancy it is myself when I see them suffer. Every day I deprive myself of food for them; and to have no pity on one's neighbour is to be of too hard a nature.

DIVISION A.

5. GERMAN.

MR. VON TREUER, LL.B., AND MR. J. A. HARTLEY, B.A., B.Sc.

Time—Three hours.

*NOTE.*—In order to obtain a credit in German Candidates must satisfy the Examiners in both parts of this paper.

PART I.

I. Translate—

—Ja, nun ist's gethan!  
 Es geht die Sonne mir der schönsten Gunst  
 Auf einmal unter; seinen holden Blick  
 Entziehet mir der Fürst und läßt mich hier  
 Auf düstrem, schmalen Pfad verloren stehn.  
 Das häßliche zweideutige Geflügel,  
 Das leidige Gefolg' der alten Nacht,  
 Es schwärmt hervor und schwirrt mir um das Haupt.  
 Wohin, wohin beweg' ich meinen Schritt,  
 Dem Efel zu entfliehn, der mich umsaugt,  
 Dem Abgrund zu entgehn, der vor mir liegt?

Parse each word in the last line.

## II. Translate—

Die wahre Freundschaft zeigt sich im Versagen  
Zur rechten Zeit, und es gewährt die Liebe  
Gar oft ein schädlich Gut, wenn sie den Willen  
Des Fordernden mehr als sein Glück bedenkt.  
Du scheinst mir in diesem Augenblick  
Für gut zu halten, was du eifrig wünschst,  
Und willst im Augenblick, was du begehrt.  
Durch Hestigkeit ersezt der Freude,  
Was ihm an Wahrheit und an Kräften fehlt.  
Es fordert meine Pflicht, so viel ich kann,  
Die Hast zu mäß'gen, die dich übel treibt.

## III. Translate—

BarfüÙe mußte ins Feld und den ganzen Tag draußen  
bleiben beim Einpflanzen der Rübenkeflinge. Bei jedem  
Schritte fast zögerte sie und wollte zurück und dem Fremden  
Alles sagen, aber das Gebot der Unterthänigkeit eben so sehr  
als eine besondere Betrachtung drängte sie fort zu ihrer ange-  
wiesenen Pflicht. Wenn er so einfältig und unbesonnen ist,  
daß er so fahrlässig hineinrennt, dann ist ihm nicht zu helfen,  
dann verdient er's nicht besser, und — versprochen ist ja noch  
nicht geheirathet, tröstete sie sich zuletzt; aber sie war doch den  
ganzen Tag voll Unruhe, und als sie nach der Heimkehr Abends  
die Kühe molk und Rosel mit dem vollen Kübel an einer aus-  
gemolkten Kuh saß um hell sang, da hörte sie den Fremden  
mit dem Bauer im benachbarten Pferdeßall.

## IV. Give the gender and the plural of the following nouns—

Geist, Dorf, Narr, Zahl, Strahl, Herzogthum, Frucht,  
Kindlein.

V. Give the third person singular present indicative of the  
following—blasen, gelten, genesen, messen; and the third  
person singular past indicative of treffen, rathen, leiden,  
geschehen.VI. State the meaning of each of the following—kennen, kenne-  
bar, Kenner, Kenntniß, erkennen, verkennen, bekennen.VII. Write the meaning of the following adjectives, and give with  
the definite article the abstract noun corresponding to each  
in German—danfbar, finster, klar, lang, tief, treu.

## VIII. Answer any two of the following questions—

- (a.) What caused the Thirty Years War?
- (b.) Give some account of Martin Luther.
- (c.) Give some account of Maria Theresa.

## IX. Translate—

(a.) Tiefe Stille herrscht im Wasser,  
Ohne Regung ruht das Meer,  
Und bekümmert sieht der Schiffer  
Glatte Fläche rings umher.  
Keine Luft von keiner Seite!  
Todesstille fürchterlich!  
In der ungeheuren Weite  
Reget keine Welle sich.

*Goethe.*

(b.) Felix hörte mit kindlichem Vertrauen auf seinen Lehrer, schnell auch überkam ihn wieder die Heiterkeit der Jugend. „Der Vater Prior,“ plauderte er, „scheint mir ein guter und leutseliger Mann zu sein, aber — ich darf es Ihnen wohl gestehen — er sieht gar nicht wie ein Klostergeistlicher aus. Ich mußte fortwährend an ein altes Bild denken, das in unserem Schlosse hängt. Es soll einer meiner Ahnen, ein Reiterobrist aus dem dreißigjährigen Kriege, sein, ein großer, stattlicher Mann mit rothem Gesicht und kleinen Feuer Augen, vor denen ich mich als Kind immer fürchtete. Gerade so sieht Ihr Vater Prior aus, nur daß er keinen Bart und keinen Harnisch trägt.“

## X. Translate into German—

There was once a king who asked his daughter : “How much do you love me ?” She said “ I love you as well— as well as salt.” The king thought this was a silly answer, and was vexed at it. No long time had passed when the king gave a great feast, and his daughter contrived that all the dishes should come on the table unsalted. Naturally enough the king did not like this, and he asked his daughter “ Pray, why is everything so badly cooked to-day ? Nothing has any taste at all.” Then she replied, “ Don’t you see ? Because there is no salt. So was I not right when I said I loved you as well as salt ?” The king admitted that she was right, and for this reason people still say to-day “ As dear as salt.”

## DIVISION A.

## 6. ITALIAN.

No candidates.

## DIVISION B.

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## 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. A tradesman allows a customer 5 per cent. discount on his bill, but even then reckons to make a profit of 20 per cent. At what per cent. above cost price must he mark his goods?

II. Explain why it is that  $ab = ba$ ,  $a^5 \times a^6 = a^{11}$ ,  $a - (x - y) = a - x + y$ .

Resolve into as many factors as you can—

$$(1) 81a^4 - 256b^4$$

$$(2) x^4 - 8x^2y^2 + 16y^4$$

III. Simplify—

$$\frac{b}{a + \frac{b}{a + \frac{b}{a}}} - \frac{a}{b - \frac{a}{b - \frac{a}{b}}}$$

IV. Solve the following equations—

$$(1) \frac{x-a}{b+a} + \frac{x-c}{b+c} = \frac{b-a}{b+a} + \frac{b-c}{b+c}$$

$$(2) 4x - 3y - 17 = 0$$

$$-7x + 20y + 15 = 0$$

$$(3) \frac{12}{7}(x^2 - 1) = -x$$

## PART II.

V. A cubic foot of lead weighs 11,000 oz. Calculate how many bullets  $\frac{1}{2}$  inch in diameter will go to the pound.

VI. Prove that—

$$(b+c)^3 + (c+a)^3 + (a+b)^3 - 2(a^3 + b^3 + c^3 - 3abc)$$

$$= 3(a+b)(b+c)(c+a)$$

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VII. Reduce to its lowest terms—

$$\frac{6x^4 - 4x^3 + 3x^2 + 2x - 3}{9x^4 + 14x^2 + 9}$$

VIII. A train starts from a station  $A$  to another station  $B$  15 minutes before another, and only arrives at  $B$   $3\frac{3}{4}$  minutes before the second train. The second train travels ten miles an hour faster than the other, and the distance between the stations is  $22\frac{1}{2}$  miles. Find the rates at which the trains travel.

IX. Solve the equations—

$$\begin{aligned} (1) \quad & x^2 + z^2 - y^2 = 6a^2 \\ & x + z - y = 2a \\ & xz + zy + xy = 11a^2 \\ (2) \quad & x^2 + \sqrt{x^2 - x + 2} = x \end{aligned}$$

PART III.

X. Prove that  $x^a \times x^b = x^{a+b}$  when  $a$  and  $b$  are positive integers. How do you interpret  $x^0$  and  $x^{-a}$ ?

$$\text{Divide } x^{-\frac{4}{3}} + y^{\frac{4}{3}} - 2x^{-\frac{2}{3}}y^{\frac{2}{3}} \text{ by } x^{-\frac{1}{3}} + y^{\frac{1}{3}}$$

XI. Sum the following series—

$$\begin{aligned} & -a, a, 3a, 5a, \dots \dots \dots \text{to } a \text{ terms.} \\ & \frac{1}{a}, \frac{1}{a^2}, \frac{1}{a^3}, \dots \dots \dots \text{to infinity.} \end{aligned}$$

XII. Find the number of permutations of  $n$  different things taken  $r$  at a time.

Prove that the number of combinations of  $n$  things taken  $r$  together is equal to the number when taken  $n - r$  together.

XIII. Trace the changes in the value of  $\sin \theta$  as  $\theta$  proceeds from  $0^\circ$  to  $360^\circ$ .

XIV. Find the value of  $\sin 3A$  in terms of  $\sin A$ .

Prove that

$$\frac{\sin 4A + \sin 10A}{\sin 6A + \sin 8A} + \frac{\cos 4A - \cos 10A}{\cos 6A - \cos 8A} = 4 \cos 2A$$



## DIVISION B.

Senior Public  
Examination,  
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## 7. PURE MATHEMATICS II.

PROFESSOR BRAGG, B.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. 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 many 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.

- I. Any two sides of a triangle are together greater than the third.
- Any side of a triangle is greater than the difference of the other two.
- II. Describe a rectangle which shall be equal to a given triangle.
- III. Show that if the diagonals of a parallelogram be equal to each other the parallelogram is a rectangle.
- IV. If a straight line drawn through the centre of a circle bisect a straight line which does not pass through the centre it bisects it at right angles; and if it cut it at right angles it bisects it.

A tangent is drawn to the inner of two concentric circles. Prove that it is bisected at the point of contact with the inner circle.

## PART II.

- V. If one side of a triangle be produced, the exterior angle is greater than either of the interior and opposite angles.
- Hence show that a triangle must have at least two acute angles.
- VI. ABCD is a quadrilateral inscribed in a circle such that AD is parallel to BC. AB and DC are produced to meet

in P. The angle BPC is then bisected by a straight line PK. Show that PK passes through the centre of the circle.

- VII. Show how to construct a triangle, having given the base, the vertical angle, and the radius of the inscribed circle.

## PART III.

- VIII. Similar triangles are to one another in the duplicate ratio of their homologous sides.

ABC is a triangle and D any point in the side AC. Through A a straight line AE is drawn parallel to BC and BD is produced to meet AE in E. Show that the triangle ADE is to the triangle BDC in the duplicate ratio of the triangle ADE to the triangle ADB.

- IX. If two straight lines which meet one another be parallel to two other straight lines which meet one another, but are not in the same plane with the first two—the plane passing through the first pair is parallel to the plane passing through the other pair.

- X. Through any point in the diagonal AC of a parallelogram ABCD are drawn two lines parallel to the sides. Show that the straight lines, joining the adjacent points of intersection of these lines with the sides either meet on the diagonal AC or are parallel to the diagonal BD.

- XI. Explain what is meant by a logarithm ; and prove

$$(I.) \log_a xy = \log_a x + \log_a y$$

$$(II.) \log_a x^y = y \log_a x$$

$$(III.) \log_a x \times \log_x a = 1$$

Having given  $\log_{10} 2 = .30103$ ,  $\log_{10} 3 = .4771213$ , find the position of the first significant digit in  $(\frac{2}{3})^{100}$ .

- XII. Prove that in any triangle the following results hold :—

$$(I.) \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$(II.) a^2 - b^2 = 2c \left\{ a \cos(60^\circ + B) - b \cos(60^\circ + A) \right\}$$

- XIII. Show how to solve a triangle having given one side and two angles.

Determine the remaining sides of a triangle having given  $a = 4$  ft.,  $A = 15^\circ$ ,  $B = 75^\circ$ .

## DIVISION B.

Senior Public  
Examination,  
November, 1888.

## 8. APPLIED MATHEMATICS.

PROFESSOR BRAGG, M.A.

Time—Three hours.

- I. Indicate by diagrams any methods in which forces proportional respectively to 7, 9, 10 may be made to balance each other; also forces proportional to 3, 10, 12; also forces proportional to 3, 8, 12.
- II. What is a "couple?" Show that it cannot be balanced by any single force.
- A rod, six feet long, whose weight is 1 lb., is suspended in a horizontal position, by a string which is attached to the middle of the rod, passes over a pulley, and has a weight of 8 lbs. at its other end. A weight of 3 lbs. is attached to one end of the rod. What weight must be attached to the rod in order to obtain equilibrium, and at what place must it be attached? If the weight at the end of the rod be 7lbs. how can equilibrium be obtained?
- III. How far can a book be pushed over the edge of a table without its tumbling off? If a second book of the same size as the first be put on top of it how must the two be arranged so that the top book projects as far over the edge of the table as possible? If a third, similar to the others, be put on top of these two, how must they be arranged so that the third may project as far as possible? In all these three cases one edge of each book is to be parallel to the edge of the table.
- IV. State and prove the parallelogram of velocities.
- The wind is blowing across a road with a speed of 8 miles an hour; at the same time a man is riding along the road with the same speed. In what direction will the wind appear to him to be blowing?
- V. Show that, if a body move with uniform acceleration, the spaces described in successive seconds are in arithmetical progression.
- VI. A train weighing 100 tons is moving with a velocity of 40 miles an hour; what force will stop it in half a minute?
- VII. What is the energy of a shot, of mass 50 lbs., which is projected from a gun at the rate of 1,000 feet a second? If,

whilst going at this rate, it strike a target and penetrate 5 inches, what is the average pressure on the target during the penetration?

- VIII. Show how to find the pressure on a vertical rectangular area submerged in a liquid.

What is the pressure exerted on a dock gate 20 feet wide 30 feet high when the level of the water is 10 feet below the top of the gate? Whereabouts does the pressure act?

- IX. The weight of a certain piece of wood in air is 50 grammes; the weight of a certain piece of lead in water is 17 grammes. When the two are fastened together the weight in water of the combination is 3 grammes. What is the specific gravity of the wood?
- X. A piston weighing 10 lbs. fits tightly into a cylinder which is open at the top, closed at the bottom, is two feet long, and of one square foot sectional area. If, when the piston is at the top of the cylinder, the air inside is at the same pressure as it is outside, find how far the piston will sink into the cylinder by its own weight. Take the pressure of the air outside to be 15 lbs. on the square inch.

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## DIVISION B.

### 9. CHEMISTRY.

PROFESSOR RENNIE, M.A., D.Sc.

Time—Three hours.

[*N.B.*—Candidates are expected to write formulae and equations wherever possible.]

- I. A series of electric sparks is passed through pure oxygen, and the gas is then passed into a solution of iodide of potassium. Explain the changes which take place (a) in the volume of the gas (b) in its properties (c) in the potassium iodide solution.
- II. Commercial hydrochloric acid frequently contains free chlorine and iron. How can their presence be detected?
- III. Ammonia gas is passed into nitric acid. What is the product, and what is the effect of heat upon it?

- IV. Amorphous phosphorus is heated with nitric acid till all the former has disappeared, and the liquid is then evaporated. What remains? How would you test for this substance in solution?
- V. An intimate mixture of ordinary sand and charcoal is heated in a current of chlorine gas. What substance is formed, and what is the effect of water upon it? How may this reaction be used to prepare pure silica?
- VI. The following substances are strongly heated in a current of air; explain the result in each case:— $CaCO_3$ ,  $Ca(OH)_2$ ,  $FeS_2$ ,  $Cu$ .
- VII. How is aluminium prepared? State what you know of its properties. What is the composition of the true ruby?
- VIII. Dilute hydrochloric acid is allowed to act on the following substances:—(a) ferrous sulphide (b) an alloy of zinc and antimony. State what compound is formed in each case, and give an outline of its properties.
- IX. You are given the following gaseous mixtures (a) nitric oxide and nitrogen (b) ammonia and carbon monoxide (c) hydrochloric acid and marsh gas. State how you would separate the two gases in each case.
- X. Describe roughly how to determine the specific heat of a piece of copper.

## DIVISION B.

## 10. EXPERIMENTAL PHYSICS.

PROFESSOR BRAGG, M.A.,

Time—Three hours.

- I. If a ball of iron, weighing 11b., fall upon an iron plate from a height of 100 feet and then come to rest, and the whole of the energy of the motion be turned into heat, how much heat will be developed? Supposing the heat to be shared equally between the ball and the plate, how much will the temperature of the ball be raised? The mechanical equivalent of heat may be taken as 1,390 for a degree centigrade, and the specific heat of iron as .112.

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- II. Describe a way of proving experimentally that the time of vibration of a string varies as the length of the string.
- III. Describe an experimental proof of the fact that water is at its greatest density at 4°C.
- IV. State in a general manner the mode of action of freezing mixtures.
- V. If a small object is placed 3 ft. away from a concave mirror whose radius is 1 ft., where will the image be found?
- VI. How would you analyse the nature of the vibrations from a radiant source, say a piece of heated carbon? If the carbon be gradually raised from a low to a high temperature, what changes will take place in the nature of the radiation?
- VII. What is "Polarization of light by reflection?" State what you know about it.
- VIII. Describe a form of apparatus by which it may be proved that the attractions or repulsions between small spheres charged with electricity vary inversely as the square of their distances from one another.
- IX. State what you know about diamagnetism.
- X. Part of a circuit, through which a current is running, consists of a piece of copper wire two metres long and one millimetre in diameter, and another part consists of a piece of silver wire three metres long and two millimetres in diameter. Compare the amount of heat generated per second in these two wires. The resistance of copper is to the resistance of silver as four to three.

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## DIVISION B.

### II. BOTANY.

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

Time—Two hours.

- I. Describe the *seed* of a *pea* in respect to the relationship of its *constituent parts*.

- II. Make a sketch of a vertical section through the inflorescence of an *Aster*; and give an exact account of each kind of flowers. How does the inflorescence of a *sow-thistle* differ from that of an *Aster*?
- III. What are *bracts*? Give some of their modifications.
- IV. Describe and name the *inflorescence* of a *wallflower*. How is that of a *sow-thistle* and of a *wild-oat* related to it?
- V. What are the characters of the classes Dicotyledones and Monocotyledones, and of the principal divisions of the former? Refer the plants mentioned for special study to their respective classes and sub-classes.
- VI. Fill up the "Schedule" in respect to the accompanying plant.

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DIVISION B.

II. PHYSIOLOGY,

E. C. STIRLING, M.A., M.D.

Time—Two hours.

- I. Describe the structure and composition of a tooth.
- II. An ordinary meal is in process of digestion :—What is the character and composition of the contents of the duodenum?
- III. In what respects does the flow of blood in any artery differ from that in a vein?
- Account for these differences.
- Explain the terms vaso-motor nerves and vaso-motor centre.
- IV. Write an account of the general arrangement of the nervous system, and describe the functions of the spinal cord.
- V. Explain how the heat of the body is produced, distributed, and regulated.

## DIVISION B.

12. PHYSICAL GEOGRAPHY AND THE  
PRINCIPLES OF GEOLOGY.

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

Time—Three hours.

- I. What are the methods of depicting on maps elevations of the surface? Illustrate your answer by sketches.
  - II. Give me some general notion of how a map is made.
  - III. Account for the formation of *Fog*; and explain the reason why it rains about Adelaide more frequently at night.
  - IV. Define the term escarpment. Explain its origin.
  - V. What influence has the composition of rocks upon the quality of the water in the immediate vicinity?
  - VI. By what natural agencies may rock surfaces have been smoothed or polished? What are the characteristics of each?
  - VII. Name the indigenous animal, vegetable, and mineral productions of Australia which are of high commercial value.
  - VIII. Describe the accompanying rock specimens, and state under what conditions each one has been formed.
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# ANNUAL REPORT FOR THE YEAR 1888.

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To His Excellency Sir WILLIAM CLEAVER FRANCIS ROBINSON, Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George, Governor and Commander-in-Chief in and over the Province of South Australia and the Dependencies thereof, &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 1888 :—

## I. THE OCTO-CENTENARY OF THE UNIVERSITY OF BOLOGNA.

Early in February the Council received an invitation from the University of Bologna to send representatives to attend the celebration of their octo-centenary.

The Right Reverend George Wyndham Kennion, M.A., D.D., Bishop of Adelaide, a member of the Council, and Horace Lamb, Esq., M.A., F.R.S., late Professor of Mathematics in the University of Adelaide, and now Professor of Mathematics at the Victoria University in Manchester, were selected by the Council to represent the University at the ceremonial. Unfortunately, neither of these gentlemen was able to be present.

## II. BUST OF SIR W. C. F. ROBINSON PRESENTED TO THE UNIVERSITY.

At the beginning of the present year Sir E. T. Smith, K.C.M.G., presented a marble bust of your Excellency to the University. The Council gratefully accepted the gift, and have placed the bust on the main staircase near the busts of the late Bishop of Adelaide, and Sir Walter Watson Hughes.

## III. CHANGES IN THE COUNCIL AND OFFICERS.

On the 24th of February Edward Charles Stirling, M.A., M.D., and William Symon, M.A., resigned their seats on the Council. A vacancy in the Council had previously occurred under the Act of Incorporation, in consequence of the re-election of His Honor Chief Justice Way to the Chancellorship, and on the 28th of March the Senate elected—

James Walter Smith, LL.D.,  
Edward Charles Stirling, M.A., M.D., and  
John Davies Thomas, M.D.,

In November,

John Anderson Hartley, B.A., B.Sc.,  
 Frederick Ayers, M.A.,  
 William Barlow, LL.D.,  
 Horatio Thomas Whittell, M.D., and  
 William Everard, J.P.,

in conformity with the provisions of the University Act, ceased to hold office as members of the Council.

On the 28th of November the Senate elected the following gentlemen—

William Barlow, LL.D.,  
 John Anderson Hartley, B.A., B.Sc.,  
 John Alexander Cockburn, M.D., M.P.,  
 Frederick Ayers, M.A., and  
 William Everard, J.P.

Dr. Whittell did not seek re-election.

#### IV. THE SENATE.

The Senate on the 28th March re-elected Frederick Chapple, B.A., B.Sc., to be Warden. Thomas Ainslie Caterer, B.A., was appointed Clerk of the Senate.

#### V. ADMISSION TO DEGREES.

At the commemoration held on the 19th of December, the following undergraduates were admitted to degrees—

|                                     |   |                            |
|-------------------------------------|---|----------------------------|
| Francis Edward Knowles              | } | To the Degree of LL.B.     |
| Anthony James Alexander Hall        |   |                            |
| Albert Edward Jones                 |   |                            |
| Richard Francis Dempsey             |   |                            |
| William Ashley Magarey              |   |                            |
| Henry Upton                         |   |                            |
| James Taylor Mellor                 |   |                            |
| Douglas Comyn Scott                 | } | ... To the Degree of B.Sc. |
| Clinton Coleridge Farr              |   |                            |
| Charlotte Elizabeth Arabella Wright | } | To the Degree of B.A.      |
| Thomas Martin Burgess               |   |                            |
| Alexander Wyllie                    |   |                            |
| Ernest Neville Marryat              |   |                            |
| George Alfred Fischer               |   |                            |
| Alfred Nicholas Hopkins             |   |                            |
| Judah Moss Solomon                  |   |                            |
| Percy Norwood Knight                |   |                            |
| Thomas Abram Le Messurier           |   |                            |

The undermentioned graduates of other Universities were at the same time admitted *ad eundem gradum* :—

Sir Samuel Davenport, LL.D., Cambridge.  
 Harry Swift, M.D., Cambridge.  
 Sylvanus James Magarey, M.D., Melbourne.  
 Montague C. Wood, M.A., Oxford.  
 William Henry Bragg, M.A., Cambridge.  
 William Lowrie, M.A., Edinburgh.  
 Robert Humphrey Marten, M.B., Cambridge.  
 Thomas Borthwick, M.B., Edinburgh.  
 Christopher Bollen, M.B., Toronto.

#### VI. ALTERATION OF STATUTES AND REGULATIONS.

Some alterations, not sufficiently important to specify, have been made in the Regulations of the M.B. Degree and of the Public Examinations in Music.

A new regulation, giving the Council a discretionary power to direct that a Preliminary Examination may be held in March, was added to the Regulations of the Preliminary Examination.

#### VII. NUMBER OF STUDENTS.

The number of undergraduates in the various courses is 109 and of non-graduating students 77 ; of whom 8 entered for two classes.

#### VIII. FACULTY OF LAWS.

Nine students commenced the course for the LL.B. Degree ; seven undergraduates completed the first, nine the second and nine the third year's course. Six Students obtained certificates that they had passed in the Law of Property ; five in the Law of Contracts ; six in Constitutional Law ; eight in the Law of Wrongs ; and six in the Law of Procedure.

The total number of undergraduates studying for the LL.B. degree was thirty, and fourteen 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 propose to appoint additional Lecturers.

#### IX. FACULTY OF MEDICINE.

Seven students commenced the course for the M.B. Degree ; and eight completed the first year's course ; five the second ; three the third ; and five the fourth.

Forty non-graduating students attended the course of lectures on Elementary Physiology, and two the lectures on Biology.

Sir Thomas Elder's annual prize in Physiology for students in Medicine was awarded to Wentworth Rowland Cavenagh, and that for non-graduating students to Matilda Beatrice Austin and Frederick Coleman.

In consequence of the retirement of Oscar Görger, M.D., one of the Lecturers on Clinical Surgery, the Council appointed Benjamin Poulton, M.D., to the vacant office.

An Act to enable the University to confer Degrees in Surgery has been passed by Parliament.

#### X. THE FACULTY OF SCIENCE.

Seven Students commenced the course for the B.Sc. Degree ; six completed the first, three the second, and one the third year's course.

The number of non-graduating Students attending lectures in the different subjects was as follows:—Physics 7 - Botany 1 ; Geology 1 ; Practical Chemistry 4.

Clinton Coleridge Farr was nominated by the Hon. J. H. Angas to be the first Angas Engineering Exhibitioner.

#### XI. THE FACULTY OF ARTS.

Professor Boulger, M.A., D.Litt., Hughes Professor of English Language and Literature and Mental and Moral Philosophy, whose term of office expired on the 30th of June, has been re-appointed to the Professorship for a further term.

Four Students commenced the course for the B.A. Degree, and five completed the first, two the second, and nine the third year's course.

The number of non-graduating Students attending Lectures in the different subjects was as follows:—English Language and Literature 2 ; Greek 1 ; Latin 1 ; Mathematics 1.

The University Scholarships were awarded to Frederick Stanley Butler, Thomas Hugh Frewin, and Frederick William Wheatley.

The John Howard Clark Scholarship for proficiency in English Literature was awarded to Frank Sandland Hone.

#### XII. THE BOARD OF MUSICAL STUDIES.

Nine Students commenced the course for the Mus. Bac. Degree ; six completed the first, seven the second, and five the third year's course. The total number of graduating Students in Music was twenty-six, and of non-graduating Students two.

#### XIII. THE EVENING CLASSES.

Owing to the number of entries not reaching the minimum fixed by the regulations, no evening classes were formed this year

in Latin, Greek, English Literature, German, Elementary Mathematics, or Botany. On the other hand 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.

#### XIV. HIGHER PUBLIC EXAMINATION.

Twenty-seven candidates entered themselves for various subjects of the Higher Public Examination. The results are shown in Appendix C.

#### XV. THE SENIOR PUBLIC EXAMINATION.

At the Special Senior Public Examination in March five candidates entered, but none satisfied the examiners.

At the Examination held in November seventy-four candidates entered. Four passed in the First Class, eight in the Second, and thirty-one in the Third Class.

In Appendix F will be found the Class List.

#### XVI. JUNIOR PUBLIC EXAMINATION.

Seventy-nine candidates entered for the Junior Public Examination. Nine passed in the First Class, nine in the Second, and sixteen in the Third Class; and fourteen candidates passed, but were not classified, as they were over the prescribed age.

In Appendix G will be found the Class List.

#### XVII. THE PRELIMINARY EXAMINATION.

Three hundred and forty-one candidates entered for the Preliminary Examination, of whom one hundred and thirty-three passed.

In Appendix H will be found the names of those who passed.

#### XVIII. PUBLIC EXAMINATIONS IN MUSIC.

Public Examinations in the *Theory* of Music were held this year at Adelaide, Crystal Brook, Port Pirie, Strathalbyn, Mount Barker, and Kapunda.

In the Junior Division seventy-five candidates entered; thirty-seven gained First Class Certificates, and twenty-two Second Class Certificates.

In the Senior Division ten candidates entered; four gained First Class Certificates, and three Second Class Certificates.

In the *Practice* of Music eighty candidates entered for the

Junior Division. Thirty-two obtained First Class Certificates, and thirty-nine Second Class Certificates.

In the Senior Division of the *Practice* of Music twenty-five candidates entered; fourteen obtained First Class Certificates, and ten Second Class Certificates.

The Class Lists will be found in appendix E.

XIX. CADETSHIP AT THE ROYAL MILITARY COLLEGE, SANDHURST.

No candidate presented himself for Examination.

XX. REPRESENTATION OF THE UNIVERSITY ON THE BOARD OF GOVERNORS OF THE PUBLIC LIBRARY, MUSEUM AND ART GALLERY.

At a meeting of the University, held on the 17th October, Professor Boulger, M.A., D.Litt., and Horatio Thomas Whittell, M.D., were elected to represent the University on the Board of Governors of the Public Library, Museum, and Art Gallery of South Australia.

XXI. 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.

XXII. REPRESENTATION OF THE UNIVERSITY ON THE COUNCIL OF THE SCHOOL OF MINES AND INDUSTRIES.

In compliance with a request from the Honourable the Minister of Education the Council nominated Professor Rennie, M.A., D.Sc., and Edward Charles Stirling, M.A., M.D., to represent the University on the Council of the School of Mines and Industries.

XXIII. BUILDING.

No important addition has been made to the University Building, but the fencing has been completed.

XXIV. ACCOUNTS.

An abstract of the income and expenditure during the year 1888, 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 at the close of 1888.

Signed on behalf of the Council,

S. J. WAY,

Chancellor.

Adelaide, January, 1889.

## APPENDIX A.

## LIST OF STUDENTS WHO COMMENCED THE UNDERGRADUATE COURSE.

## LL.B.

|                          |                        |
|--------------------------|------------------------|
| Bloxham, Charles a'Court | Piper, Arthur William  |
| ✓ Cox, Arthur Percival   | Tuxford, Albert Joseph |
| Hopkins, Alfred Nicholas | Valentine, Harry ✓     |
| Hourigan, Richard Edward | Wyatt, Frank Addison ✓ |
| McDougall, James Gilbert |                        |

## M.B.

|                                |                           |
|--------------------------------|---------------------------|
| Cavenagh, Wentworth Rowland    | Gunson, John Bernard      |
| Cudmore, Arthur Murray         | Moule, Edward Ernest      |
| Embling, Austin Henry Chinnock | Shanahan, Patrick Francis |
| Gibbes, Alexander Edward       |                           |

## B.A.

|                           |                           |
|---------------------------|---------------------------|
| Butler, Frederick Stanley | Doolette, Dorham Longford |
| Devenish, Albert Sidney   | Frewin, Thomas Hugh       |

## B.Sc.

|                                   |                              |
|-----------------------------------|------------------------------|
| Haycraft, Edith Florence          | Trehy, Annie Louisa Virginia |
| Isbister, James Linklater Thomson | Wheatley, Frederick William  |
| Kirby, Mary Maude                 | Wright, Elizabeth Leslie     |
| Lawrance, David Hermann           |                              |

## MUS. BAC.

|                       |                        |
|-----------------------|------------------------|
| Bosch, Dorothea Elise | Stenhouse, Rosa        |
| Davis, Hester Lilian  | Tims, May              |
| Law, Emily Augusta    | Watson, Edith Mary     |
| Loessel Rhea Marie    | Williams, Alice Coombe |
| Moore, Anna Theresa   |                        |

The following Students entered for the purpose of obtaining Certificates, but with no intention of proceeding to a Degree :—

## LL.B.

Davis, Arthur Colin

## Mūs. BAC.

|                                |                      |
|--------------------------------|----------------------|
| Loessel, Joanna Dorothea Julia | Taylor, John Noblett |
|--------------------------------|----------------------|



APPENDIX B.

CLASS LISTS.

ORDINARY EXAMINATION FOR THE DEGREE OF LL.B.,  
MARCH, 1888.

The names in all Classes are in alphabetical order.

|                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>None</p> <p>FIRST YEAR.<br/>FIRST CLASS.</p> <p>Rounsevell, Horace Vernon</p> <p>SECOND CLASS.</p> <p>Benny, Benjamin<br/>Cleland, Edward Erskine<br/>Gwynne, Illtyd Gordon<br/>Ingleby, Rupert</p> <p>THIRD CLASS.</p> <p>SECOND YEAR.<br/>FIRST CLASS.</p> <p>None</p> | <p>SECOND CLASS.</p> <p>Dempsey, Richard Francis</p> <p>THIRD CLASS.</p> <p>None</p> <p>THIRD YEAR.<br/>FIRST CLASS.</p> <p>None</p> <p>SECOND CLASS.</p> <p>Knowles, Francis Edward</p> <p>THIRD CLASS.</p> <p>Hall, Anthony James Alexander<br/>Jones, Albert Edward</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The following Students of the First Year are entitled to a Certificate of having passed in—

THE LAW OF PROPERTY.  
Hargrave, Joshua Addison.

The following Students of the Second Year are entitled to a Certificate of having passed in—

CONSTITUTIONAL LAW.  
Michell, George Francis | Stockdale, William John

The following Students of the Third Year are entitled to a Certificate of having passed in—

THE LAW OF WRONGS.  
Andrews, Walter Frederick | Michell, George Francis  
Durstun, Sidney Bridle | Wright, Charles Joseph Harvey

ORDINARY EXAMINATION FOR THE DEGREE OF LL.B.,  
NOVEMBER, 1888.

The undermentioned Undergraduates passed this Examination:—

|                                                                                                      |                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>None</p> <p>FIRST YEAR.<br/>FIRST CLASS.</p> <p>SECOND CLASS.</p> <p>McDougall, James Gilbert</p> | <p>THIRD CLASS.</p> <p>Bertouch, Rudolph Paul Albrecht von</p> <p>SECOND YEAR.<br/>FIRST CLASS.</p> <p>None</p> <p>SECOND CLASS.</p> <p>None</p> |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|



THIRD CLASS.

Benny, Benjamin  
 Cleland, Edward Erskine  
 Heuzenroeder, William Eberhard  
 Horn, Edward Palmer  
 Ingleby, Rupert  
 Mitchell, Samuel James  
 Price, Arthur Jennings  
 Wright, Lewis Garner

THIRD YEAR.  
 FIRST CLASS.

None  
 SECOND CLASS.  
 Dempsey, Richard Francis  
 Magarey, William Ashley  
 Upton, Henry  
 THIRD CLASS.  
 Giles, Eustace  
 Mellor, James Taylor  
 Scott, Douglas Comyn

The following Students of the First Year are entitled to Certificates of having passed in—

THE LAW OF PROPERTY.

Bloxham, Charles a'Court  
 Davis, Arthur Colin  
 Hourigan, Richard Edward

Whitby, Percy Edward Robert  
 Wooldridge, William Phillips

The following Students of the Second Year are entitled to Certificates of having passed in—

CONSTITUTIONAL LAW.

Greer, George Andrew  
 Sabine, Ernest Maurice

Wigley, Henry Vandeleur  
 Wright, Charles Joseph Harvey

THE LAW OF CONTRACTS.

Foster, Henry Edgar  
 Greer, George Andrew  
 Hargrave, Joshua Addison

Sabine, Ernest Maurice  
 Stockdale, William John

The following Students of the Third Year are entitled to Certificates of having passed in—

THE LAW OF WRONGS.

Bertram, Robert Matthew  
 Rounsevell, Horace Vernon

Rowley, Spencer Toler  
 Warren, Thomas Hogarth

THE LAW OF PROCEDURE.

Bertram, Robert Matthew  
 Durston, Sidney Bridle  
 Michell, George Francis

Rounsevell, Horace Vernon  
 Rowley, Spencer Toler  
 Warren, Thomas Hogarth

ORDINARY EXAMINATION FOR THE DEGREE OF M.B.,  
 NOVEMBER, 1888.

FIRST YEAR.

FIRST CLASS.

Cavenagh, Wentworth Rowland

SECOND CLASS (in alphabetical order).

Cudmore, Arthur Murray  
 Embling, Austin Henry Chinnock  
 Gunson, John Bernard  
 Shanahan, Patrick Francis

THIRD CLASS (in alphabetical order).

Gibbes, Alexander Edward

Good, Joseph Ernest

Moule, Edward Ernest

SECOND YEAR.

FIRST CLASS (in order of merit).

Mead, Cecil Silas  
 Fowler, Laura Margaret

SECOND CLASS (in alphabetical order).

Giles, Henry O'Halloran  
 Powell, Henry Arthur  
 Seabrook, Leonard Llewellyn

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THIRD YEAR.  
 FIRST CLASS.  
 Verco, William Alfred  
 SECOND CLASS (in alphabetical order).  
 Beyer, Franz Victor  
 Morgan, Alexander Matheson  
 FOURTH YEAR.  
 FIRST CLASS (in order of merit).  
 Goldsmith, Frederick  
 Hope, Charles Henry Standish

SECOND CLASS (in alphabetical order).  
 Lynch, Arthur Francis Augustin  
 Magarey, Cromwell

THIRD CLASS.  
 Robin, Vincent John

FIFTH YEAR.  
 None.

SUPPLEMENTARY ORDINARY EXAMINATION FOR THE DEGREE  
 OF B.A., MARCH, 1888.

THIRD YEAR.

PASSED WITH HONOURS.

Wright, Charlotte Elizabeth Arabella ... Classics ... .. Third Class

ORDINARY EXAMINATION FOR THE DEGREE OF B.A.,  
 NOVEMBER, 1888.

FIRST YEAR.

PASSED WITH HONOURS.

(In order of merit.)

|                           |     |     |                         |     |     |              |
|---------------------------|-----|-----|-------------------------|-----|-----|--------------|
| Doolette, Dorham Longford | ... | ... | Latin                   | ... | ... | Second Class |
| Frewin, Thomas Hugh       | ... | ... | Latin                   | ... | ... | Second Class |
| Butler, Frederick Stanley | ... | ... | Latin                   | ... | ... | Second Class |
| Butler, Frederick Stanley | ... | ... | Greek                   | ... | ... | Second Class |
| Frewin, Thomas Hugh       | ... | ... | Greek                   | ... | ... | Second Class |
| Butler, Frederick Stanley | ... | ... | Mathematics             | ... | ... | First Class  |
| Frewin, Thomas Hugh       | ... | ... | Mathematics             | ... | ... | Third Class  |
| Stow, Francis Leslie      | ... | ... | English Literature, &c. | ... | ... | First Class  |

PASSED.

FIRST CLASS.

None.

SECOND CLASS.

None.

THIRD CLASS.

Devenish, Albert Sidney

SECOND YEAR.

PASSED WITH HONOURS.

|                      |     |     |             |     |     |              |
|----------------------|-----|-----|-------------|-----|-----|--------------|
| Hone, Frank Sandland | ... | ... | Latin       | ... | ... | First Class  |
| Hone, Frank Sandland | ... | ... | Greek       | ... | ... | First Class  |
| Hone, Frank Sandland | ... | ... | Mathematics | ... | ... | Second Class |

PASSED.

FIRST CLASS.

None.

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SECOND CLASS.

None.

THIRD CLASS.

Fletcher, Lancelot Kohry.

THIRD YEAR.

PASSED WITH HONOURS.

(In order of merit.)

|                          |     |     |                          |     |     |              |
|--------------------------|-----|-----|--------------------------|-----|-----|--------------|
| Burgess, Thomas Martin   | ... | ... | Mathematics              | ... | ... | First Class  |
| Burgess, Thomas Martin   | ... | ... | Classics                 | ... | ... | First Class  |
| Wyllie, Alexander        | ... | ... | Classics                 | ... | ... | Second Class |
| Marryat, Ernest Neville  | ... | ... | Classics                 | ... | ... | Second Class |
| Fischer, George Alfred   | ... | ... | Classics                 | ... | ... | Second Class |
| Hopkins, Alfred Nicholas | ... | ... | Mental and Moral Science | ... | ... | Second Class |
| Solomon, Judah Moss      | ... | ... | Mental and Moral Science | ... | ... | Second Class |
| Knight, Percy Norwood    | ... | ... | Mental and Moral Science | ... | ... | Third Class  |

PASSED.

FIRST CLASS.

None.

SECOND CLASS.

LeMessurier, Thomas Abram

THIRD CLASS.

None.

Student who, not studying for a Degree, has at the Ordinary Examination for the First Year of the B.A. Course, passed in English Language and Literature—  
Cox, Katherine Haydon. ✓

ORDINARY EXAMINATION FOR THE DEGREE OF B.Sc.,  
NOVEMBER, 1888.

FIRST YEAR.

PASSED WITH HONOURS.

Wheatley, Frederick William ... .. Mathematics. ... .. First Class

PASSED.

FIRST CLASS.

None.

SECOND CLASS.

(In alphabetical order.)

Isbister, James Linklater Thomson | Trehy, Annie Louisa Virginia

THIRD CLASS.

(In alphabetical order.)

Haycraft, Edith Florence | Lawrance, David Hermann  
Kirby, Mary Maude

PASSED IN GERMAN.

Isbister, James Linklater Thomson.

SECOND YEAR.

PASSED WITH HONOURS.

Fletcher Alfred Watkiss ... .. Chemistry ... .. Third Class

PASSED.  
FIRST CLASS.  
None.

SECOND CLASS.

Clark, Arthur Howard.

THIRD CLASS.

Solomon, Susan Selina.

THIRD YEAR.

PASSED WITH HONOURS.

|                             |     |     |             |     |     |              |
|-----------------------------|-----|-----|-------------|-----|-----|--------------|
| Farr, Clinton Coleridge ... | ... | ... | Mathematics | ... | ... | Second Class |
| Farr, Clinton Coleridge ... | ... | ... | Physics     | ... | ... | Second Class |

ORDINARY EXAMINATION FOR THE DEGREE OF MUS. BAC.,  
NOVEMBER, 1888.

The Names in all Classes are in alphabetical order.

FIRST YEAR.

FIRST CLASS.

None.

SECOND CLASS.

Moore, Anna Theresa.

THIRD CLASS.

Bosch, Dorothea Elise  
Davis, Hester Lilian  
Law, Emily Augusta

Loessel, Rhea Marie  
Stenhouse, Rosa

SECOND YEAR.

FIRST CLASS.

Mitchell, Ernest Edwin

Sanders, William

SECOND CLASS.

Way, Kate Isabel.

THIRD CLASS.

Mann, Elizabeth Frances  
Townsend, Alice Annie

Way, Florence Jane Elizabeth  
Winwood, Susan Ann

THIRD YEAR.

FIRST CLASS.

None.

SECOND CLASS.

Pybus, William Richard

THIRD CLASS.

Bundey, Ellen Milne  
Hamilton, Mary Coulls

Simpson, Mary King  
Tilly, Florence Mary

ATTENDANCE ON LECTURES.

Table showing the subjects of the Courses of Lectures attended by students not studying for Degrees and the numbers who attended the Lectures and passed the Examinations in those subjects :—

| Subjects.                | Number attending Lectures. | Entered for Examination. | Number passed. |
|--------------------------|----------------------------|--------------------------|----------------|
| English Literature ...   | 2                          | 1                        | 1              |
| Latin ... ..             | 1                          | 0                        | 0              |
| Greek ... ..             | 1                          | 0                        | 0              |
| Physics ... ..           | 7                          | 6                        | 4              |
| Applied Mathematics ...  | 1                          | 0                        | 0              |
| Practical Chemistry ...  | 4                          | 0                        | 0              |
| Biology ... ..           | 2                          | 2                        | 2              |
| Animal Physiology ...    | 40                         | 0                        | 0              |
| Practical Physiology ... | 2                          | 0                        | 0              |
| Law of Property ...      | 2                          | 2                        | 1              |
| Constitutional Law ...   | 5                          | 3                        | 3              |
| Law of Contracts ...     | 6                          | 5                        | 4              |
| International Law ...    | 1                          | 0                        | 0              |
| Law of Wrongs ... ..     | 3                          | 3                        | 2              |
| Law of Procedure ...     | 4                          | 5                        | 3              |
| Harmony ... ..           | 2                          | 0                        | 0              |
| Counterpoint ..          |                            |                          |                |
| Geology ... ..           | 1                          | 0                        | 0              |
| Botany ... ..            | 1                          | 0                        | 0              |

APPENDIX C.

PUBLIC EXAMINATIONS.

CLASS LISTS.

HIGHER PUBLIC EXAMINATION, NOVEMBER, 1888.

The names are arranged in alphabetical order.

LATIN—PART I.

Sanders, William

FRENCH.

\* Overbury, Margaret

GERMAN.

Russack, Frederick William

ENGLISH LANGUAGE AND LITERATURE.

Moore, William Alfred

Stockdale, Annie Rosina

THEORY AND HISTORY OF EDUCATION.

Adamson, Lydia

PURE MATHEMATICS—PART I.

Berriman, George Stevens

McInerney, Thomas

Dalby, John

Simpson, Alfred Edward

Iliffe, James Drinkwater

APPLIED MATHEMATICS.

Griffiths, Richard Fletcher

PHYSICS—PART I.

Berriman, George Stevens

Jenner, Charles James

Dalby, John

O'Dea, Patrick

\* Duke, Francis

Stacey, George

PHYSICS—PART II.

Goyder, Alexander Woodroffe

Turner, Ernest Frederick

CHEMISTRY (INORGANIC).

Fuller, William

Roach, Bertie Smith

Gallagher, William Edward

Russack, Frederick William

Goyder, Alexander Woodroffe

Simpson, Alfred Edward

\* Heynemann, Wilhelmina Susannah Hillier

Iliffe, James Drinkwater, with Second

McInerney, Thomas

Class Honours

CHEMISTRY (ORGANIC AND PRACTICAL).

Goyder, Alexander Woodroffe

Turner, Ernest Frederick, with Third

Class Honours

ELEMENTARY BIOLOGY.

\* Fuller, William

Simpson, Alfred Edward

Roach, Bertie Smith

GEOLOGY.

Bosch, Theodore Silas

Goyder, Alexander Woodroffe

Gallagher, William Edward

Turner, Ernest Frederick

\* An asterisk denotes that the candidate passed with credit.



NOVEMBER, 1888.—HIGHER PUBLIC EXAMINATION.

27 Candidates entered themselves for the Higher Public Examination. The results are shown in the subjoined table:—

| Subject.                                 | Entered. | Passed. |
|------------------------------------------|----------|---------|
| Latin, Part I. ... ..                    | 3        | 1       |
| Greek, Part I. ... ..                    | 2        | 0       |
| French ... ..                            | 1        | 1       |
| German ... ..                            | 1        | 1       |
| English Language and Literature ... ..   | 2        | 2       |
| Pure Mathematics, Part I. ... ..         | 7        | 5       |
| Physics, Part I. ... ..                  | 8        | 6       |
| Physics, Part II. ... ..                 | 2        | 2       |
| Applied Mathematics, Part I. ... ..      | 1        | 1       |
| Inorganic Chemistry ... ..               | 9        | 9       |
| Organic and Practical Chemistry ... ..   | 2        | 2       |
| Elementary Biology and Physiology ... .. | 4        | 3       |
| Geology ... ..                           | 4        | 4       |
| Theory and History of Education ... ..   | 1        | 1       |

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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 1888.

| SUBJECT.             |        | LECTURER.        |     | No. of Lectures. | No. of Students. |              |             |
|----------------------|--------|------------------|-----|------------------|------------------|--------------|-------------|
|                      |        |                  |     |                  | First Term.      | Second Term. | Third Term. |
| Mathematics Advanced | ... .. | Mr. Chapman      | ... | 52               | 8                | 7            | 7           |
| Physics              | ... .. | Professor Bragg  | ... | 56               | 18               | 18           | 18          |
| Physics Practical    | ... .. | Professor Bragg  | ..  | 28               | 9                | 7            | 2           |
| Chemistry Inorganic  | ... .. | Professor Rennie | ... | 56               | 22               | 17           | 16          |
| Chemistry Practical  | ... .. | Professor Rennie | ... | 28               | 18               | 11           | 8           |
| Geology              | ... .. | Professor Tate   | ... | 59               | 6                | 5            | 4           |
| French               | ... .. | Mr. A. C. Aucher | ..  | 25               | 12               | 13           | 1           |



APPENDIX E.

PUBLIC EXAMINATIONS IN MUSIC.

SENIOR PUBLIC EXAMINATION IN THE THEORY OF MUSIC,  
NOVEMBER, 1888.

All classes are in alphabetical order.

FIRST CLASS.

|                        |  |                           |
|------------------------|--|---------------------------|
| Bosch, Dorothea Elise | \| | Loessel, Rhea Marie       |
| Hawkins, Fanny Susanna | \| | Trevenen, Margaret Howard |

SECOND CLASS.

|                          |  |                                      |
|--------------------------|--|--------------------------------------|
| Goodchild, Bessie Faith | \| | Wright, Charlotte Elizabeth Arabella |
| Haycraft, Edith Florence | \| |  |

SENIOR PUBLIC EXAMINATION IN THE PRACTICE OF MUSIC,  
NOVEMBER, 1888.

All classes are in alphabetical order.

PIANOFORTE PLAYING.

FIRST CLASS.

|                               |  |                           |
|-------------------------------|--|---------------------------|
| Boxhorn, Adelaide | \| | Quarton, Ellen Adelaide   |
| Galbraith, Agnes | \| | Shorney, Emmeline Alice   |
| Hodge, Emily Mary Eleanor | \| | Stockdale, Annie Rosina   |
| Loessel, Rhea Marie | \| | Sudholz, Louise Minna     |
| Manning, Annie Maria | \| | Trevenen, Margaret Howard |
| Merrett, Florence Nightingale | \| |  |

SECOND CLASS.

|                                |  |                              |
|--------------------------------|--|------------------------------|
| Bosch, Dorothea Elise | \| | Goodchild, Bessie Faith      |
| Davey, Florence Emily | \| | Harkness, Mary Kerr          |
| Fellows, Jane Tait | \| | Lang, William Alfred Westall |
| Goode, Frances Ethel | \| | Sharp, Margaret Alice        |
| Sudholz, Sophie Amalie Johanne | \| |  |

SINGING.

FIRST CLASS.

|                     |  |                  |
|---------------------|--|------------------|
| Bell, Florence | \| | Woolnough, Edith |
| Bruer, Jeffry James | \| |  |

SECOND CLASS.

Goodchild, Bessie Faith



JUNIOR PUBLIC EXAMINATION IN THE THEORY OF MUSIC,  
NOVEMBER, 1888.

All Classes are in alphabetical order.

FIRST CLASS.

Bennett, Ernest Matthew  
Benson, Emily Elizabeth  
Bosch, Anna Josephine  
Boxhorn, Adelaide  
Brown, Emma Elizabeth  
Caterer, Clarence Phillips  
Clark, Eleanor  
Cooper, Emily Henrietta  
Cooper, Ethel Caroline  
Cottrell, Isabel Roberta  
Cox, Katherine Haydon  
Davey, Florence Emily  
Drew, Bessie  
Gellert, Rachel Maria  
Goode, Ethel  
Hack, Frances Lucilla  
Heuzenroeder, Louise Helène  
Hobbs, Lilian Ethel  
Hotson, Lilian Mary

Lloyd, Martha Hessel  
Lyons, Blanche Marion  
McDonald, Edith Marion  
Main, Lilian Susannah  
Newbery, Florence May  
Newman, Olive Gertrude  
Norman, Caroline  
Penny, Evelyn Emma  
Pitt, Ada Gertrude  
Richardson, Florence Emmie  
Robertson, James Robert  
Russel, Edith  
Sanders, Edith Agnes  
Sclater, Edith Countts  
Treleaven, Ethelwyn  
Tucker, John  
Watson, Eva Alice  
Wright, Ethel Minnie

SECOND CLASS.

Adamson, Margaret Thomson  
Borthwick, Gertrude Edith Isabel  
Broadbent, Jessie Mabel  
Daw, Emma  
Edmunds, Edith  
Fidler, Evelyn Mary  
Gibbon, Eleanor Marshall  
Godden, May Gertrude  
Goode, Lilian May  
Harry, Ada Violet  
Harvey, Florence Anne Hill

Hill, Mary  
Loessel, Lucia Marie Louisa  
Manson, Emily Ann  
Messervy, Eveleen Beatrice  
Nicholson, Mabel Amelia Grace  
Oldham, Lily Edith Mary  
Rhodes, Grace Edith  
Richardson, Mabel Eliza  
Russell, Alice  
Swan, Agnes Emma  
Wylie, Amy Gertrude

JUNIOR PUBLIC EXAMINATION IN THE PRACTICE OF MUSIC,  
NOVEMBER, 1888.

All Classes are in alphabetical order.

PIANOFORTE PLAYING.

FIRST CLASS.

Benson, Emily Elizabeth  
Birks, Helen Napier  
Blades, Mary  
Boxhorn, Adelaide  
Brown, Emma Elizabeth  
Caterer, Clarence Phillipps  
Congreve, Emily Jane  
Cooper, Emily Henrietta  
Cox, Marion Alicia  
Davis, Ella Maud  
Daw, Emma  
Dunn, Eustace Alexandria Andrew  
Eason, Charlotte  
Godden, May Gertrude

Heuzenroeder, Louise Helène  
Longson, Anna Margaret  
Luhrs, Sophie  
Main, Lilian Susannah  
Mellor, Eleanor Mary  
Messervy, Eveleen Beatrice  
Millard, Emilie  
Moffin, Kate Alfreda  
Pearson, Nettie  
Porter, Adelaide Koeppen  
Swan, Agnes Emma  
Treleaven, Ethelwyn  
Turnbull, Lucy Adelaide  
Watson, Eva Alice

SECOND CLASS.

Barber, Louisa Nettie  
 Beach, Jeanie Way  
 Benson, Annie  
 Bertram, Irene Agatha  
 Blackwell, Flora Louisa  
 Büring, Elizabeth  
 Carruthers, Laura Margaret Florence  
 Clark, Isabel  
 Crawley, Fanny Louisa  
 Derrington, Florence Gertrude  
 Doolette, Mary Elizabeth  
 Drew, Bessie  
 Goodall, Ada Annie  
 Goode, Constance Emily  
 Gordon, Joan Sophie  
 Graham, Eliza Annie  
 Hall, Amy Adelaide  
 Hallewell, Jane Fullarton

Hamer, Ethel May  
 Hannam, Sarah Amy  
 Hanns, Harriett Alberta  
 Kelsey, Lillian Florence Caitloch  
 Lucas, Lucy de Neufville  
 Lyons, Emma  
 Mair, Constance Mary Morphett  
 McRae, Elizabeth  
 Mellor, Elizabeth Lillian  
 Oldham, Lily Edith Mary  
 Philips, Alice  
 Poole, Kate Mary  
 Rendall, Margaret  
 Russell, Gwendoline May  
 Smith, Maude Evelyne  
 Swan, Maggie Raven  
 Vohr, Emma Louisa

VIOLIN PLAYING.

FIRST CLASS.

None

SECOND CLASS.

Davis, Ella Maud

SINGING.

FIRST CLASS.

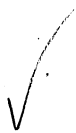
Clark, Isabel  
 Hubble, Martha

Robertson, James Robert  
 Wylie, Amy Gertrude

SECOND CLASS.

Fidler, Evelyn Mary  
 Gartrell, Adeline

Nankervis, Maria Grace



APPENDIX F.

SPECIAL SENIOR PUBLIC EXAMINATION, MARCH, 1888.

Five candidates entered themselves for this Examination, but all failed to satisfy the Examiners.

SENIOR PUBLIC EXAMINATION, NOVEMBER AND DECEMBER, 1888.

FIRST CLASS.

All classes in alphabetical order.

Claxton, Elsie Mabel, 1\*, 4, 5\* 7, 11, 12\*  
 Howchin, Stella, 1\*, 2\*, 4\*, 5\*, 7, 11\*, 12  
 Smith, Julian Augustus Roman, 1, 2, 3\*, 7\*, 9  
 Trudinger, Walter, 1\*, 2\*, 3\*, 7\*, 9

*Last Place of Education.*  
 Advanced School for Girls  
 Advanced School for Girls  
 Prince Alfred College  
 Prince Alfred College

SECOND CLASS.

Austin, Matilda Beatrice, 1\*, 4\*, 5, 11\*, 12\*  
 Benham, Ellen Ida, 1\*, 4, 11\*, 12  
 Bonnin, Francis Josiah, 1, 2, 7, 11, 12\*  
 Eimer, Hermann, 1, 2, 5, 7\*, 9  
 Evans, Arthur Ernest Herbert, 1, 2, 5\*, 7, 9  
 Heyne, Laura Olga Hedwig, 1, 4, 5\*, 7, 11, 12  
 Marlow, Alfred Cleveland, 1, 2, 3, 7\*  
 Steele, William, 1, 2, 3, 7\*

Unley Park School  
 Advanced School for Girls  
 Glenelg Grammar School  
 St. Peter's Collegiate School  
 St. Peter's Collegiate School  
 Advanced School for Girls  
 Prince Alfred College  
 St. Peter's Collegiate School

THIRD CLASS.

Adamson, Albert Stanley, 1, 2, 7\*  
 Beare, Edwin Arthur, 1\*, 2, 10, 12  
 Benham, Constance Mary, 1, 4, 5, 11  
 Benham, Edward Warner, 1\*, 2, 9  
 Birks, Raymond, 1\*, 2, 7  
 Corbin, Cecil, 1, 2, 3, 7, 8, 9  
 Corbin, Hugh Burton, 1, 2, 3, 7, 8, 9  
 Cruickshank, Constance May, 1\*, 4, 5, 11, 12  
 Hague, Percy, 1, 2, 7\*  
 Hamilton, Albert Edwin, 1, 2, 7  
 Henderson, Arthur George Morphett, 1, 2, 12  
 Hill, Herbert Edward, 1, 2, 7  
 Irwin, Henry Offley, 1\*, 2, 3, 7  
 Kelsey, Rowland Harcus, 1, 2, 7  
 Lang, William Alfred Westall, 1\*, 2, 7\*  
 Laurie, Ebenezer Curtis, 1\*, 2, 5, 7, 9  
 Loessel, Rhea Marie, 1, 5, 11, 12  
 McKenzie, Margaret Janet, 1\*, 4, 11  
 Maley, Lily, 1, 4, 5, 11  
 Miley, Reginald Horace, 1, 2, 3, 7  
 Muecke, Dora, 1, 4, 5, 11, 12  
 Muller, Charlotte Mary, 1, 2, 4, 11

Prince Alfred College  
 Private Tuition  
 Advanced School for Girls  
 Private Tuition  
 Prince Alfred College  
 St. Peter's Collegiate School  
 St. Peter's Collegiate School  
 Advanced School for Girls  
 Prince Alfred College  
 Prince Alfred College  
 Prince Alfred College  
 Glenelg Grammar School  
 Prince Alfred College  
 St. Peter's Collegiate School  
 Mr. D'Arenberg's Tuition  
 Prince Alfred College  
 Prince Alfred College  
 Unley Park School  
 Advanced School for Girls  
 Advanced School for Girls  
 Prince Alfred College  
 Advanced School for Girls  
 Hardwicke College

Parsons, Herbert Angas, 1, 2, 7  
 Sangster, John Ikin, 1, 2, 5, 7, 9  
 Shorney, Ellen Gertrude, 1\*, 4, 5, 11, 12  
 Taylor, Harry Samuel, 1, 2, 7\*  
 Thomas, Isabel Dora, 1, 2, 4, 12  
 Townsend, Alice Annie, 1\*, 2, 5, 11  
 Wadey, Walter Henry, 1, 2\*, 7\*  
 Whittell, Anna Marie Prince, 1, 5, 10  
 Winnall, John Edward Hyde, 1, 2, 12

*Last Place of Education.*

Prince Alfred College  
 St. Peter's Collegiate School  
 Advanced School for Girls  
 Prince Alfred College  
 Misses McMinn's School  
 Miss Martin's School  
 Prince Alfred College  
 Private Study  
 Private Tuition

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 Mathematics
- 9.—Chemistry
- 10.—Experimental Physics
- 11.—Botany and Physiology
- 12.—Physical Geography and the Principles of Geology.



NOVEMBER, 1888.—SENIOR PUBLIC EXAMINATION.

74 Candidates entered themselves for this Examination, of whom 31 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                   | 7                     | 58     | 27                  | 4                    | 31     |
| Greek ... ..                   | 15                   | 0                     | 15     | 8                   | 0                    | 8      |
| Pure Mathematics ... ..        | 49                   | 13                    | 62     | 23                  | 3                    | 26     |
| Applied Mathematics ... ..     | 6                    | 0                     | 6      | 3                   | 0                    | 3      |
| French ... ..                  | 3                    | 19                    | 22     | 0                   | 13                   | 13     |
| German ... ..                  | 11                   | 14                    | 25     | 4                   | 12                   | 16     |
| English ... ..                 | 51                   | 21                    | 72     | 27                  | 16                   | 43     |
| Chemistry ... ..               | 30                   | 0                     | 30     | 9                   | 0                    | 9      |
| Physics ... ..                 | 2                    | 1                     | 3      | 2                   | 1                    | 3      |
| Botany and Physiology...       | 5                    | 19                    | 24     | 1                   | 14                   | 15     |
| Physical Geography and Geology | 7                    | 16                    | 23     | 4                   | 10                   | 14     |

APPENDIX G.

JUNIOR PUBLIC EXAMINATION, NOVEMBER AND DECEMBER, 1888.

FIRST CLASS.

All classes are in alphabetical order.

|                                               | LAST PLACE OF EDUCATION.      |
|-----------------------------------------------|-------------------------------|
| Bell, Florence Elsie, 1*, 4*, 5, 6, 7c        | Advanced School for Girls     |
| Chapple, Alfred, 1, 2*, 6*, 7a                | Prince Alfred College         |
| Mitton, Ernest Gladstone, 1*, 2, 6*, 7a       | Prince Alfred College         |
| Plummer, Violet May Ruckle, 1*, 4*, 5*, 6, 7c | Advanced School for Girls     |
| Rosman, Ernest William, 1*, 2*, 5*, 6*, 7b    | St. Peter's Collegiate School |
| Sewell, Frank, 1*, 2, 5*, 6, 7b               | St. Peter's Collegiate School |
| Trudinger, Anna, 1, 4, 5*, 6*, 7*c            | Advanced School for Girls     |
| Wilson, Isabel Mathieson, 1*, 4, 5*, 6, 7*c   | Advanced School for Girls     |
| Zöwe, Agnes Adeline, 1*, 4, 5*, 7*c           | Advanced School for Girls     |

SECOND CLASS.

|                                           |                               |
|-------------------------------------------|-------------------------------|
| Adams, Charles Francis, 1*, 2, 6, 7a      | Prince Alfred College         |
| Angus, William James, 1, 2, 6*, 7a        | Prince Alfred College         |
| Boundy, Frank Palmer, 1, 2, 6*, 7a]       | Prince Alfred College         |
| Butler, Leonard John Walker, 1*, 2, 6, 7c | Semaphore Collegiate School   |
| Butler, Wilfred Horace, 1, 2, 6*, 7a      | Prince Alfred College         |
| Field, Edgar John, 1, 2, 3, 6*            | Christian Brothers' College   |
| Gillman, William Holland, 2, 3, 5, 6*, 7b | St. Peter's Collegiate School |
| Heuzenroeder, Louise Helène, 1*, 5*, 7c   | Advanced School for Girls     |
| Weld, Elizabeth Eleanor, 1, 4, 5, 6, 7*c  | Advanced School for Girls     |

THIRD CLASS.

|                                          |                               |
|------------------------------------------|-------------------------------|
| Aldersey, Elizabeth Lee, 1*, 4, 7c       | Tsong Gyaion, McLaren Vale    |
| Ambrose, Lily Finlayson, 1, 6, 7c        | Unley Park School             |
| Andrews, Hargrave William, 1, 2, 6, 7c   | Semaphore Collegiate School   |
| Cotton, Charles Henry, 1, 2, 6           | Prince Alfred College         |
| Douglas, Francis John, 2, 3, 5, 6        | St. Peter's Collegiate School |
| King, William Frank, 1, 2, 6             | Whinham College               |
| Little, Egbert Percy Graham, 1, 2, 6     | Whinham College               |
| McManamny, James Aloysius, 1, 2, 3, 6    | Christian Brothers' College   |
| McNamara, Percival Laurence, 1, 2, 6*    | Christian Brothers' College   |
| Moulden, John Collett, 1, 2, 7b          | St. Peter's Collegiate School |
| Newman, Olive Gertrude, 4, 5, 6, 7c      | Hardwicke College             |
| Pike, Florence May, 1, 4, 5, 6, 7c       | Advanced School for Girls     |
| Richardson, Ethel Maude, 1, 6, 7a        | Mrs. Kelsey's School          |
| Smyth, Henrietta, 1, 5, 6                | Advanced School for Girls     |
| Solomon, Emma Amalie, 1, 4, 7c           | Advanced School for Girls     |
| Wainwright, William Edward, 5, 6, 7a, 7b | Private Tuition               |

The following candidates passed, but being over sixteen years of age at the time of examination. are not classified.

|                                         |                            |
|-----------------------------------------|----------------------------|
| Borthwick, Ernest Lincoln, 1, 2, 7a, 7b | Private Tuition            |
| Builder, Alfred Ernest, 1, 5, 6, 7a     | Adelaide Collegiate School |

Campbell, Allen James, 1, 2, 5, 7b  
 Crompton, Alfred, 1, 6, 7a  
 Daenke, Frederick William, 1\*, 5\*, 6  
 Dobbs, Eliza, 1, 4, 7c  
 Fisher, Ella Constance, 1, 4, 7a  
 Fry, Harry Vincent, 1, 6, 7a  
 Hamilton, Henry Arthur, 1, 2, 5, 6, 7a  
 Hunter, George McIntyre, 1, 2, 7a  
 Lovely, William Harvey Chapman, 2, 6, 7\*c  
 Millar, Francis James, 1\*, 2, 5, 6, 7a  
 Scott, John Simpson, 1\*, 5, 6\*, 7a  
 Trevenen, Mabel Mary, 1\*, 5, 6, 7c

LAST PLACE OF EDUCATION.  
 St. Peter's Collegiate School  
 Prince Alfred College  
 St. Peter's Collegiate School  
 Advanced School for Girls  
 Mrs. Kelsey's School  
 Adelaide Collegiate School  
 Prince Alfred College  
 Prince Alfred College  
 Semaphore Collegiate School  
 Prince Alfred College  
 Prince Alfred College  
 Advanced School for Girls

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, 1888.

79 *Candidates entered for this Examination, of whom 31 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 ... ..            | 51                   | 25                    | 76     | 27                  | 16                  | 43     |
| Latin ... ..              | 49                   | 2                     | 51     | 25                  | 0                   | 25     |
| Greek ... ..              | 6                    | 0                     | 6      | 4                   | 0                   | 4      |
| French ... ..             | 4                    | 24                    | 28     | 0                   | 12                  | 12     |
| German ... ..             | 19                   | 16                    | 35     | 11                  | 11                  | 22     |
| Mathematics ... ..        | 52                   | 18                    | 70     | 27                  | 11                  | 38     |
| Chemistry ... ..          | 13                   | 0                     | 13     | 7                   | 0                   | 7      |
| Elementary Physics ... .. | 26                   | 2                     | 28     | 15                  | 2                   | 17     |
| Physiology and Botany     | 6                    | 20                    | 26     | 3                   | 14                  | 17     |

## APPENDIX H.

PRELIMINARY EXAMINATION, SEPTEMBER, 1888.

Pass List, in Alphabetical order.

|                                    |                                  |
|------------------------------------|----------------------------------|
| Adams, Ernest Henry                | Fiveash, Myra Jane               |
| Aldersey, Elizabeth Lee            | Furner, Emmie                    |
| Anderson, William Munro            | Gellert, Rachel Maria            |
| Angell, Charlie                    | Gilman, Joseph Strickland        |
| Angus, William James               | Goldsworthy, Walter Percy        |
| Ashton, Edward James Wilberforce   | Goodchild, Bessie Faith          |
| Ashwin, Ethel Maude                | Goode, Albert Powell             |
| Ayers, Julian                      | Grigg, Harry                     |
| Ballantyne, John Arthur            | Grundy, Walter                   |
| Bayly, Harold Goodenough           | Gunn, Kenneth                    |
| Bayly, Percival George Wykeham     | Gunther, Edward                  |
| Bednall, Edward Blore              | Hains, Philip                    |
| Beeton, Reginald                   | Hancock, George Alfred           |
| Bell, Willoughby George            | Hannam, Sarah Amelia             |
| Benham, Constance Mary             | Harvey, Henry Bennett            |
| Benham, Edward Warner              | Harvey, Winifred Elizabeth       |
| Birmingham, Lily                   | Hawke, William                   |
| Beythien, Ernest William Ferdinand | Henderson, Arthur George Morphet |
| Birks, Bessie Adelaide             | Heuzenroeder, Louise Helène      |
| Birks, Elsie Ellen                 | Hughes, George Edwin             |
| Birks, Laurence                    | Hunter, Ellen Wynne              |
| Bishop, John Baillie               | Hunter, George McIntyre          |
| Blakie, James Richard              | Ingham, Florence                 |
| Borthwick, Ernest Lincoln          | James, William John Abraham      |
| Boundy, Frank Palmer               | Johnson, James Howard            |
| Bowen, Vincent Lorne               | Kelly, Catherine Lucy            |
| Bruer, Jeffrey James               | Kelly, Patrick Leopold           |
| Burgoyne, George Thomas Cotter     | Kirkman, David                   |
| Butler, Wilfred Horace             | Kither, Herbert                  |
| Chaffey, James Edward              | Kugelmann, Albertina Wilhelmina  |
| Chapple, Marian                    | Lamb, Lizzie Amaranth            |
| Clark, Jessie Rose                 | Lawrence, Percy Joseph Anderson  |
| Claxton, Marshall                  | Lloyd, Beatrice Butters          |
| Condon, Mary Ellen                 | Lloyd, Thomas William            |
| Cooke, Florence Emmeline           | Lohrmann, Leonard William        |
| Cotton, Charles Henry              | McKenzie, Margaret Janet         |
| Cudmore, Kenneth DeLacy            | McManus, Rose Ann                |
| Davey, Florence Emily              | McNamara, John Francis           |
| Dawkins, Sydney Letts              | Main, Elsie Harriet              |
| Dearman, William Herbert           | Main, Margaret Annie             |
| DeMole, Violet                     | Martin Harold Allen              |
| Dungey, Mary Pash                  | Mellor, Arthur Neill             |
| Ferguson, Ethel Marion             | Michell, John                    |
| Fisher, William Joseph             | Mitton, Ethel Alberta            |

Mitton, Ernest Gladstone  
Moulden, John Collett  
Muecke, Louis Hugo  
Murray, William  
Newland, Henry Simpson  
Newman, Maude Evelyn  
Newman, Olive Gertrude  
O'Connell, John Phillip  
O'Donnell, Ernest David  
Oelmann, Francis William  
Oelmann, Hubert John  
Peters, Arthur Ernest  
Pitt, Ada Gertrude  
Pratt, William Ernest  
Prince, Frank  
Richardson, Frank Joseph Webb  
Ryder, William Francis  
Sabine, Edgar  
Salter, Alfred Fulton  
Saunders, Moses Brandon  
Scott, John Simpson  
Searle, George  
Searle, Thomas Gordon

Sewell, Frank  
Sholl, Reginald Frank  
Simpson, Alfred Allen  
Slane, James Charles Francis  
Solomon, Herbert  
Stockwell, Fred Clarence  
Stuckey, Edward Joseph  
Stuckey, Francis Seavington  
Stuckey, Leonard  
Thow, Sidney  
Townsend, Alice Annie  
Tucker, Walter George  
Vaughan, Crawford  
Waddy, Frank Edward  
Wainwright, William Edward  
Whitham, Frank Richards  
Whittington, Bertram  
Whittington, Ernest  
Whittell, Anna Maria Prince  
Wilkinson, Thomas Rowland  
Williams, Dora Frances  
Wright, Ida Jane

*Amount of Income and Expenditure for the year 1888, furnished in*  
INCOME.

|                                                                                  | £     | d. | £       | s. | d. |
|----------------------------------------------------------------------------------|-------|----|---------|----|----|
| Balance in Bank on 31st December, 1887 ...                                       |       |    | 669     | 6  | 9  |
| <i>Income—</i>                                                                   |       |    |         |    |    |
| H.M. Government—Subsidy on General Endowments ... ..                             | 2,050 | 0  | 0       |    |    |
| Fees ... ..                                                                      | 2,673 | 17 | 6       |    |    |
| Interest ... ..                                                                  | 1,801 | 7  | 7       |    |    |
| Rent ... ..                                                                      | 1,932 | 8  | 5       |    |    |
|                                                                                  |       |    | 8,457   | 13 | 6  |
| <i>Evening Classes—</i>                                                          |       |    |         |    |    |
| Interest on Endowment ... ..                                                     | 51    | 9  | 6       |    |    |
| Government Subsidy thereon ... ..                                                | 61    | 0  | 0       |    |    |
| Fees received from Students ... ..                                               | 146   | 0  | 0       |    |    |
|                                                                                  |       |    | 258     | 9  | 6  |
| <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—S.A. Scholarship ... ..                                          | 200   | 0  | 0       |    |    |
| Fees received from Students ... ..                                               | 29    | 8  | 0       |    |    |
|                                                                                  |       |    | 2,169   | 8  | 0  |
| <i>Laboratories—Deposit Account</i> ... ..                                       |       |    |         |    |    |
|                                                                                  |       |    | 2       | 2  | 1  |
| <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>                             |       |    |         |    |    |
| Amount received from Hon. J. H. Angas ... ..                                     | 4,000 | 0  | 0       |    |    |
| Interest on Investment ... ..                                                    | 146   | 13 | 4       |    |    |
| Government Subsidy thereon ... ..                                                | 100   | 0  | 0       |    |    |
|                                                                                  |       |    | 4,246   | 13 | 4  |
| <i>Building Account—Government Contribution towards erection of Fence ... ..</i> |       |    |         |    |    |
|                                                                                  |       |    | 250     | 0  | 0  |
| <i>Chair of Music—From Sundry Subscribers ... ..</i>                             |       |    |         |    |    |
|                                                                                  |       |    | 465     | 15 | 0  |
| <i>Sir T. Elder's Prizes for Physiology—</i>                                     |       |    |         |    |    |
| Amount received from Sir T. Elder ... ..                                         |       |    | 80      | 0  | 0  |
| <i>Investment Account—Mortgages Repaid ... ..</i>                                |       |    |         |    |    |
|                                                                                  |       |    | 1,550   | 0  | 0  |
| <i>Library Deposit Account—</i>                                                  |       |    |         |    |    |
| Amount received during year ... ..                                               |       |    | 28      | 0  | 0  |
| <i>Sinking Fund—</i>                                                             |       |    |         |    |    |
| Amount deposited in E. S. & A. C. Bank ... ..                                    |       |    | 125     | 0  | 0  |
| <i>English, Scottish, and Australian Chartered Bank—</i>                         |       |    |         |    |    |
| Deposit Repaid ... ..                                                            |       |    | 15,520  | 0  | 0  |
|                                                                                  |       |    | £34,016 | 3  | 4  |

Audited and found correct,  
Adelaide, 30th January, 1889.

compliance with the 18th Section of Act 37 and 38 Victoria, No. 20 of 1874.

EXPENDITURE.

|                                                                 | £     | s. | d. | £.      | s. | d. |
|-----------------------------------------------------------------|-------|----|----|---------|----|----|
| <i>Building</i> ... ..                                          |       |    |    | 548     | 0  | 10 |
| <i>Annual Expenses—</i>                                         |       |    |    |         |    |    |
| Salaries ... ..                                                 | 8,061 | 18 | 0  |         |    |    |
| Senate Account ... ..                                           | 56    | 15 | 8  |         |    |    |
| Examinations ... ..                                             | 317   | 1  | 5  |         |    |    |
| Charges ... ..                                                  | 490   | 3  | 5  |         |    |    |
| Land Tax ... ..                                                 | 166   | 13 | 4  |         |    |    |
| Stationery ... ..                                               | 33    | 14 | 8  |         |    |    |
| Advertising ... ..                                              | 128   | 9  | 10 |         |    |    |
| Printing ... ..                                                 | 168   | 6  | 9  |         |    |    |
|                                                                 |       |    |    | 9,423   | 3  | 1  |
| <i>Evening Classes—</i>                                         |       |    |    |         |    |    |
| Amount deposited at E. S. & A. C. Bank at 4 %                   | 1,220 | 0  | 0  |         |    |    |
| Fees paid to Lecturers ... ..                                   | 94    | 0  | 0  |         |    |    |
| Charges ... ..                                                  | 14    | 0  | 11 |         |    |    |
|                                                                 |       |    |    | 1,328   | 0  | 11 |
| <i>Library—Binding and Purchase of Books</i> ... ..             |       |    |    | 325     | 2  | 7  |
| <i>Laboratories—Purchase of Apparatus</i> ... ..                |       |    |    | 146     | 1  | 6  |
| <i>Furniture</i> ... ..                                         |       |    |    | 9       | 10 | 0  |
| <i>Museum</i> ... ..                                            |       |    |    | 10      | 2  | 6  |
| <i>Medical School Endowment Fund—</i>                           |       |    |    |         |    |    |
| Amount invested in Treasury Bills ... ..                        |       |    |    | 13,000  | 0  | 0  |
| <i>J. H. Clark Scholarship—</i>                                 |       |    |    |         |    |    |
| Paid Scholars ... ..                                            |       |    |    | 60      | 0  | 0  |
| <i>The Dr. Charles Gosse Lectureship on Ophthalmic Surgery—</i> |       |    |    |         |    |    |
| Amount invested in Treasury Bills ... ..                        |       |    |    | 800     | 0  | 0  |
| <i>Sir Thomas Elder's Prizes for Physiology</i> ... ..          |       |    |    | 20      | 0  | 0  |
| <i>Chair of Music—</i>                                          |       |    |    |         |    |    |
| Fees paid to Professor Ives ... ..                              | 257   | 3  | 6  |         |    |    |
| Charges ... ..                                                  | 40    | 15 | 4  |         |    |    |
|                                                                 |       |    |    | 297     | 18 | 10 |
| <i>Agent-General of South Australia—</i>                        |       |    |    |         |    |    |
| Balance of amount remitted during the year ... ..               |       |    |    | 78      | 6  | 9  |
| <i>Medical School—</i>                                          |       |    |    |         |    |    |
| Purchase of Apparatus ... ..                                    |       |    |    | 116     | 10 | 9  |
| <i>Sinking Fund—</i>                                            |       |    |    |         |    |    |
| Amount deposited in Savings Bank ... ..                         | 275   | 0  | 0  |         |    |    |
| Amount in E. S. and A. C. Bank ... ..                           | 600   | 0  | 0  |         |    |    |
|                                                                 |       |    |    | 875     | 0  | 0  |
| <i>Angas Engineering Exhibition—Paid Scholar</i> ... ..         |       |    |    | 60      | 0  | 0  |
| <i>Angas Engineering Scholarship and Exhibition—</i>            |       |    |    |         |    |    |
| Amount Deposited in E. S. and A. C. Bank at 4 %                 |       |    |    | 4,000   | 0  | 0  |
| <i>E. S. and A. C. Bank—</i>                                    |       |    |    |         |    |    |
| Amount on deposit at 4 % ... ..                                 |       |    |    | 80      | 0  | 0  |
| <i>Library Deposit Account—</i>                                 |       |    |    |         |    |    |
| Amount refunded to Students ... ..                              |       |    |    | 37      | 0  | 0  |
| <i>Investment Accounts—Loan on Mortgage</i> ... ..              |       |    |    | 350     | 0  | 0  |
| <i>Treasury Bills—Amount Invested</i> ... ..                    |       |    |    | 1,200   | 0  | 0  |
| <i>Balance in Bank</i> ... ..                                   |       |    |    | 1,251   | 5  | 7  |
|                                                                 |       |    |    | £34,016 | 3  | 4  |

W. S. DOUGLAS, } Auditors.  
 W. J. BROOK }

THE UNIVERSITY OF ADELAIDE.—*Statement showing*

|                                                                                    | DR.    |      | £ s. d. |  | £ s. d.  |      |
|------------------------------------------------------------------------------------|--------|------|---------|--|----------|------|
| To General Endowment—Sir W. 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)...                                                    |        |      |         |  | 17,605   | 13 0 |
| Rent in Arrears... ..                                                              |        |      |         |  | 4,536    | 12 6 |
| 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 ... ..                                                              | 194    | 6 7  |         |  |          |      |
|                                                                                    |        |      |         |  | 994      | 6 7  |
| Medical School (Income received to date) ... ..                                    |        |      |         |  | 5,780    | 11 4 |
| Stow Prize and Scholarship Endowment Fund (Capital Account) ... ..                 | 500    | 0 0  |         |  |          |      |
| Income Account ... ..                                                              | 215    | 16 9 |         |  |          |      |
|                                                                                    |        |      |         |  | 715      | 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 ... ..                                                              | 150    | 8 7  |         |  |          |      |
|                                                                                    |        |      |         |  | 1,370    | 8 7  |
| Chair of Music ... ..                                                              |        |      |         |  | 1,254    | 12 2 |
| Angas Engineering Scholarship and Exhibition Endowment Fund—Capital Account ... .. | 4,000  | 0 0  |         |  |          |      |
| Income Account .. ..                                                               | 186    | 13 4 |         |  |          |      |
|                                                                                    |        |      |         |  | 4,186    | 13 4 |
| Prize given by J. B. Sheridan, Esq. ... ..                                         |        |      |         |  | 12       | 12 0 |
| Laboratory Deposit Account...                                                      |        |      |         |  | 2        | 2 1  |
|                                                                                    |        |      |         |  |          |      |
|                                                                                    |        |      |         |  | £168,640 | 1 11 |

Audited and found correct,  
Adelaide, 30th January, 1889.

*the actual Financial Position on 31st December, 1888.*

|                                                                                        | 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                                                       |     |        |    |    | 39,619   | 3  | 11 |
| Library—Expended to Date...                                                            |     |        |    |    | 2,728    | 13 | 0  |
| Laboratory do.                                                                         |     |        |    |    | 2,856    | 11 | 3  |
| Museum do.                                                                             |     |        |    |    | 350      | 7  | 4  |
| Furniture do.                                                                          |     |        |    |    | 1,455    | 18 | 0  |
| Sundry Mortgages—                                                                      |     |        |    |    |          |    |    |
| General Loans from 5½ % to 7 % ...                                                     | ... | 31,350 | 0  | 0  |          |    |    |
| John Howard Clark Scholarship, at 7 % ...                                              | ... | 500    | 0  | 0  |          |    |    |
| Stow Prize Scholarship, at 7 % ...                                                     | ... | 500    | 0  | 0  |          |    |    |
|                                                                                        |     |        |    |    | 32,350   | 0  | 0  |
| Deposits at E. S. and A. C. Bank at 4 %—                                               |     |        |    |    |          |    |    |
| Angas Engineering Scholarship and Exhibition                                           |     | 4,000  | 0  | 0  |          |    |    |
| Evening Lectures Fund                                                                  |     | 1,220  | 0  | 0  |          |    |    |
| General Income...                                                                      |     | 330    | 0  | 0  |          |    |    |
|                                                                                        |     |        |    |    | 5,550    | 0  | 0  |
| Sinking Fund—Amount deposited at E. S. & A. C. Bank at 4 % ...                         | ... | 600    | 0  | 0  |          |    |    |
| Do. do., Savings Bank                                                                  | ... | 400    | 0  | 0  |          |    |    |
| Interest accrued thereon                                                               | ... | 9      | 17 | 11 |          |    |    |
|                                                                                        |     |        |    |    | 1,009    | 17 | 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 ...                                          | ... |        |    |    | 5,439    | 0  | 11 |
| Agent-General of S. A.—Amount in his hands ...                                         | ... |        |    |    | 149      | 8  | 11 |
| Balance in Bank ...                                                                    | ... |        |    |    | 1,251    | 5  | 7  |
|                                                                                        |     |        |    |    | £168,640 | 1  | 11 |

W. S. DOUGLAS, }  
W. J. BROOK, } Auditors.

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W. K. THOMAS & Co., PRINTERS, GRENFELL STREET.

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