THE

Adelaide University Calendar

FOR THE

ACADEMICAL YEAR 1882.

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

1882.

W. K. Thomas & Co., Printers, Grenfell Street, Adelaide.

TABLE OF CONTENTS.

APPENDIX.

Calendar for 1882.

January 31. First day of entry for the Supplementary Ordinary and Matriculation Examinations in March.

February 13. Last day of entry for the Supplementary Ordinary and Matriculation Examinations in March.

March 14. First Term begins, and Matriculation, University Scholarships, Angas Scholarship, S. A. Scholarship, and Supplementary Ordinary Examinations begin.

" 14. *Senate.* Last day for sending in 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 April 5th.

" 21. Lectures begin.

April 5. *Senate* meets. Election of Warden and Clerk.

" 6. Easter recess begins.

" 10. Easter recess ends.

" 11. Lectures re-commence and Examination for Clark Scholarships begins.

June 2. Lectures and First Term end.

VACATION.

June 20. Second Term and Lectures begin.

July 11. *Senate.* Last day for sending in to Clerk of Senate notices of motions to be brought forward at meeting of Senate on August 2nd.

August 2. *Senate* meets.

" 25. Lectures and Second Term end.

VACATION.

September 12. Third Term and Lectures begin. Examination for the R. M. College begins.

October 11. First day of entry for Ordinary Examinations.

" 20. First day of entry for Junior Examination.

" 21. Last day of entry for Ordinary Examinations.

" 24. First day of entry for December Matriculation Examination, and Examination for M.A. Degree.

" 31. Last day of entry for Junior Examination.

November 4. Last day of entry for December Matriculation Examination, and for Examination for M.A. Degree.

" 10. Five members of Council retire.

" 14. Lectures end.

" 14. *Senate.* Last day for sending to Clerk of Senate notices of motions to be brought forward at meeting of Senate on 6th December.

" 22. Ordinary Examinations begin.

" 25. *Senate.* Last day for sending to Clerk of Senate nominations of candidates for five annual vacancies in Council.

December 1. Junior Examination begins.

" 5. Matriculation Examination and Examinations for the Degree of M.A., and for the S. A. Scholarship, begin.

" 6. *Senate* meets. Election of five persons to fill the annual vacancies in the Council.

" 12. Third Term ends.

TIME-TABLE OF LECTURES.

B.A. COURSE.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY	FRIDAY.
FIRST YEAR.					
Latin } Greek }	11	11	11	11	11
Composition	12	...	12	...	12
Mathematics	10	...	10	...	10
Natural Philosophy ...	4.30	...	4.30	...	4.30*
Deductive Logic ...	...	2	...	...	2
SECOND YEAR.					
Latin } including Greek } Ancient History }	10	10	10	10	10
Composition	12	12	12	12	12
Mathematics, Applied	11	...	11	...	11
Inductive Logic ...	...	12	...	12	...
THIRD YEAR.					
Latin } Greek }	10	10	10	10	10
Comparative Philology	12	12	12	12	12
Mathematics	9	...	9	...	9
Political Economy ...	...	4	....	4	...

* This Class will be held occasionally on Fridays.

The above Time-table is subject to modification, as occasion may require.

TIME-TABLE OF LECTURES.

B.Sc. COURSE.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY	FRIDAY.
FIRST YEAR.					
Latin }	11	11	11	11	11
Greek }					
Composition	12	...	12	...	12
Mathematics	10	...	10	...	10
Natural Philosophy ...	4.30	...	4.30	...	4.30*
Deductive Logic ...	...	2	...	...	2
SECOND YEAR.					
Mathematics Applied	10	...	10	...	10
Do., Pure	12	...	12	...	12
Physics	11	..	11	...	11
Biology	...	10	...	10	...
Inorganic Chemistry ...	...	4.30	...	4.30	...
Inductive Logic ...	...	12	...	12	...

* This class will be held occasionally on Fridays.

The above Time-table is subject to modification as occasion may require.

TIME-TABLE OF LECTURES.

EXTRA CLASSES.	TUESDAY.	THURSDAY.	FRIDAY.
English Literature*	3	3	...
Inorganic Chemistry	4.30	4.30	...
Physiology	3.30	...	3.30

The above Time-table is subject to modification as occasion may require.

* Subjects :—*Shakespeare*—Tempest and Julius Cæsar. *Milton*—Areopagitica (Clarendon Press edition).

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 Ourself 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.

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 others 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 Thousand Pounds in

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* 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."

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 executors and administrators, that he, the said Walter Watson Hughes, his executors, or administrators, shall and will, on or before the expiration of ten years from the date hereof pay to the said Alexander Hay, as such Treasurer, or to the said Executive Council, or if the said University is incorporated within such period, then to such Corporation the sum of Twenty Thousand Pounds sterling: And will, in the meantime, pay interest thereon, 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 B. Andrews, Solicitor, Adelaide } W. W. HUGHES. (L S.)

* 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.

AMENDING ACT,
No. 143 *of* 1879.

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."

DEGREES ACT,
No. 172 *of* 1880.

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."

S.A. INSTITUTE ACT (AMENDMENT)

No. 151 *of* 1879.

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.

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."

STATUTES.

Under the powers given by the foregoing Act 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.

The University of Adelaide.

1882.

VISITOR.

HIS EXCELLENCY THE GOVERNOR.

THE COUNCIL.

* THE CHANCELLOR :

The Right Rev. AUGUSTUS SHORT, Lord Bishop of Adelaide.

† THE VICE-CHANCELLOR :

The Hon. Samuel James WAY, Chief Justice of South Australia

Elected by the Senate, 4th December, 1878,

THE HON. SIR HENRY AYERS, K.C.M.G., President of the Legislative Council (Treasurer).

Elected by the Senate, 30th July, 1879,

WILLIAM EVERARD, Esq., J.P.

Elected by the Senate, 3rd December, 1879,

JOHN WARREN BAKEWELL, Esq., M.A.

CHARLES TODD, Esq., C.M.G.

THE HON. ROBERT DALRYMPLE ROSS, M.P., Speaker of the House of Assembly.

WILLIAM ALEXANDER ERSKINE WEST-ERSKINE, Esq., M.A.

ALEXANDER STUART PATERSON, Esq., M.D.

Elected by the Senate, 1st December, 1880,

WILLIAM GOSSE, Esq., M.D., F.R.C.S., Eng.

ADOLPH von TREUER, Esq., LL.B.

HORACE LAMB, Esq., M.A., Elder Professor of Mathematics.

‡ THE VEN. ARCHDEACON FARR, M.A.

JOHN DAVIES THOMAS, Esq., M.D., F.R.C.S., Eng.

Elected by the Senate, 14th June, 1881,

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

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

* Elected Chancellor for the second time, 24th June, 1881.
† Elected Vice-Chancellor for the second time, 24th June, 1881.
‡ Warden of the Senate.

Elected by the Senate, 12th October, 1881,

FREDERIC AYERS, Esq., M.A.

Elected by the Senate, 7th December, 1881,

WILLIAM ROBINSON BOOTHBY, Esq., B.A.

THE REV. WILLIAM ROBY FLETCHER, M.A.

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

DAVID MURRAY, Esq., J.P.

EDWARD WILLIS WAY, Esq., M.B.

THE SENATE.

Warden: The Venerable ARCHDEACON FARR, M.A.

DOCTORS OF MEDICINE.

COCKBURN, JOHN ALEXANDER	1877
DEANE, CHARLES MASLEN	1877
ENGELHART, AUGUST FRIEDRICH GOTTFRIED	1877
ESAU, CHARLES FREDERICK HERMAN	1877
GARDNER, WILLIAM	1877
GETHING, ROBERT	1877
GÖRGER, OSCAR	1878
GOSSE, CHARLES	1877
GOSSE, WILLIAM	1877
GUNSON, JOHN MICHAEL	1877
MACKINTOSH, JAMES SUTHERLAND	1878
NEUBAUER, MAX FRIEDRICH	1877
PATERSON, ALEXANDER STUART	1877
RENNER, FRIEDRICH EMIL	1877
SEABROOK, THOMAS EDWARD FRAZER	1877
THOMAS, JOHN DAVIES	1877
VERCO, JOSEPH COOKE	1877
WHITTELL, HORATIO THOMAS	1877

MASTERS OF ARTS.

AYERS, FREDERIC	1877
BAKEWELL, JOHN WARREN	1877
BURTT, THOMAS	1877
CARR, WHITMORE	1877
D'ARENBERG, FREDERICK AUGUSTUS	1881
DENDY, ARTHUR	1877
DOVE, GEORGE	1877
ELCUM, CHARLES CUNNINGHAM	1879
FARR, GEORGE HENRY (Warden)	1877

FIELD, THOMAS 1877
FLETCHER, WILLIAM ROBY 1877
HOWELL, EDWARD TUCKER 1877
KELLY, DAVID FREDERICK 1879
LAMB, HORACE 1877
MACBEAN, JOHN 1877
MARRYAT, CHARLES 1877
MEAD, SILAS 1877
MÜCKE, CARL WILHELM LUDWIG 1877
PATON, DAVID 1878
POOLE, FREDERICK SLANEY 1877
POOLE, HENRY JOHN 1877
READ, HENRY 1877
SELLS, ALFRED 1877
SHARP, WILLIAM HEY 1877
SHORT, AUGUSTUS, Lord Bishop of Adelaide (Chancellor of the University) 1877
STANFORD, WILLIAM BEDELL 1879
STIRLING, EDWARD CHARLES 1877
STUCKEY, JOSEPH JAMES 1877
SYMON, WILLIAM 1879
WEBB, ROBERT BENNETT 1877
WEST-ERSKINE, WILLIAM ALEXANDER ERSKINE 1877
WILLIAMS, FRANCIS 1877

BACHELORS OF LAWS.

HAWKER, EDWARD WILLIAM 1877
JEFFERIS, JAMES 1877
STIRLING, JOHN LANCELOT 1877
Von TREUER, ADOLPH 1877

BACHELORS OF MEDICINE.

CLELAND, WILLIAM LENNOX 1880
FLOOD, JOHN WELLESLEY 1881
HAMILTON, JAMES ALEXANDER GREER 1880
MAGAREY, SYLVANUS JAMES 1877
NESBIT, WILLIAM PEEL 1877
WAY, EDWARD WILLIS 1877

BACHELORS OF ARTS.

BARLOW, WILLIAM (Clerk of the Senate) 1877
BOOTHBY, WILLIAM ROBINSON 1877

CHAPPLE, FREDERIC	1877
CHURCHWARD, SAMUEL	1877
CORVAN, JAMES HAMILTON	1877
FLOOD, JOHN WELLESLEY	1881
HALCOMB, FREDERICK	1877
HARTLEY, JOHN ANDERSON	1877
HOCTER, JOHN FRANCIS	1877
LABATT, EDWARD	1877
LABATT, GEORGE AUGUSTUS	1877
LEONARD, JAMES	1877
McCULLAGH, WILLIAM GEORGE	1877
MORSE, CHARLES WILLIAM	1877
NANKIVELL, JOHN THOMAS	1877
SMYTH, JOHN THOMAS	1878
SPICER, EDWARD CLARK	1877
WELD, OCTAVIUS	1877
WOODS, JOHN CRAWFORD	1877

OFFICERS OF THE UNIVERSITY.

PROFESSORS.

Classics, &c. :

DAVID FREDERICK KELLY, M.A., Hughes Professor of Classics.

English Language and Literature, and Mental and Moral Philosophy :

WILLIAM ROBY FLETCHER, M.A. Hughes Professor of English Literature for the year 1882.

Mathematics :

HORACE LAMB, M.A., Elder Professor of Mathematics.

Natural Science :

RALPH TATE, F.G.S., Elder Professor of Natural Science.

Human Physiology :

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

THE PROFESSORIAL BOARD.

THE CHANCELLOR
THE VICE-CHANCELLOR
PROFESSOR KELLY
PROFESSOR FLETCHER
PROFESSOR LAMB (Dean)
PROFESSOR TATE

REGISTRAR AND CLERK OF THE SENATE:

WILLIAM BARLOW, B.A., University, North Terrace, Adelaide.

BACHELORS OF ARTS WHO ARE NOT MEMBERS OF THE SENATE.

CATERER, THOMAS AINSLIE	1879
DONALDSON, ARTHUR	1881
HENDERSON, JAMES	1880
MACK, HANS HAMILTON	1880
ROBIN, PERCY ANSELL	1880
SMEATON, STIRLING	1880

UNDERGRADUATES WHO HAVE PASSED THE FINAL EXAMINATION FOR THE DEGREE OF B.A.

BEARE, THOMAS HUDSON	1879
CLARE, WILLIAM	1881
DONALDSON, GEORGE...	1881
GILL, ALFRED	1881
HOLDER, SYDNEY ERNEST	1881
MOORE, EDWIN CANTON	1881
ROGERS, RICHARD SANDERS	1881

UNDERGRADUATE STUDENTS: SESSION 1881.

Clare, William
Cooke, William Ernest
Donaldson, George
*Gill, Alfred
*Holder, Sydney Ernest
Hopkins, William Fleming
Hosking, Edwin William Gluyas
Kerr, Donald Alexander
*Kingsmill, Walter
*Moore, Edwin Canton
*Murray, George John Robert
Oldham, Reginald Vautin
*Rogers, Richard Sanders
Williams, Frances Elizabeth
Wilson, Charles Stanley.

* The asterisk denotes that the student to whose name it is prefixed is an University Scholar.

STUDENTS NOT STUDYING FOR A DEGREE: SESSION 1881.

Anderson, Jane
Birks, Helen Mary
Bray, Christopher
Bronner, Carl
Burns, John Abraham
Carroll, Emma
Charlton, Charles
Clark, Ellen Howard
Clark, Lucy Howard
Cole, Thomas William
Counsell, Walter Samuel
Crottie, James Joseph
Davidson, John Hugh Miller
Dean, Lizzie Annie
Dobbie, Charles Archibald
Donaldson, Mary
Duce, Marion Ethel
Edwards, Thomas Morgan
Fairweather, John
Ferrero, Emma Berina
Ford, Alice
Gallagher, William Edward
George, Madeleine Rees
Goldsworthy, Mary Jane
Good, Annie
Good, Elizabeth
Gray, William
Hereford, Helen Alice Vernon
Hinde, Alice Bertha
Hocking, Ernest
Jones, Edith Marion
Jones, Oliver David
Knightley, Thaddeus Michael
Lampe, Alfred Ernst Richard August
Lee, Margaret Jane
Liebing, Friedrich Wilhelm
Lower, Oswald Bertram
Macdonough, Michael James
Martin, Annie Montgomery
Maughan, Minnietta
Mitchell, Millicent F.
Moore, Thomas
Newman, George Gough
Nootnagel, Albert Hermann
Rischbieth, Marie Louise
Sandover, Elizabeth
Shelten, Abbott George
Snell, Mary Annie
Stow, Laura Louise
Tamblyn, John
Thomas, Annie Isabel
Todd, Jane E.
Tuck, Henry Joseph
Walker, Isabella Agnes
Warren, Sydney Hampton
Widdicombe, Emma Nicholls
Williams, Alfred
Willow, Emily
Wilson, Arthur Cooper

STATUTES.

CHAPTER 1.—OF THE COUNCIL.

1. The Council shall meet on the last Friday in every month, at two o'clock in the afternoon, for the dispatch of business, and shall have power to adjourn to any intermediate period : Provided that if any such Friday shall be a Public Holiday the Council shall meet on the preceding Friday.

2. All proceedings of the Council shall be entered in a Journal.

3. The Minutes of the preceding meeting shall be read at each Meeting of the Council and confirmed or amended thereat, and the presiding Chairman shall sign them as confirmed or amended.

4. 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.

5. 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, in which shall be set forth the objects for which the meeting is required to be convened ; and the meeting shall be held within fourteen days after the receipt of the requisition.

6. Each member shall be supplied by the Registrar with a written or printed notice of all matters to be considered at the next ensuing meeting (whether special or ordinary) of the Council, and such notice shall be delivered or transmitted by post at least seven days before the day of meeting.

7. The Registrar shall insert in a book to be called "The Notice of Motion Book" the date of each notice of motion, that of its discussion, and the final result. And no member shall make any motion initiating a subject for discussion except in pursuance of notice of such motion given to the Registrar at least ten days previously.

8. If a quorum of the Council be not present within fifteen minutes after the time appointed for a meeting (whether ordinary or special) all business which should have been transacted at such meeting shall stand over for the next meeting and take precedence thereat : Provided that the Registrar shall deliver or transmit by post at least seven days before the day of such next meeting such notice as aforesaid.

CHAPTER II.—OF THE SENATE.

1. The Senate of the University when constituted shall meet at such times and places as shall be prescribed by the Standing Orders of the Senate.

CHAPTER III.—OF THE PROFESSORIAL BOARD.

1. The Professors and such of the Lecturers as the Council shall from time to time nominate for that purpose shall form a Board for the consideration of all questions relating to the Studies and Discipline of the University, and of this Board the Chancellor and Vice-Chancellor or in the absence of either of them such other member of the Council as each of them may for any occasion or occasions appoint to act in his stead shall *ex officio* be Members, and the Registrar shall be Secretary.

2. The Chancellor, or if he be not present the Vice-Chancellor, shall when present preside over the Professorial Board at every meeting thereof. The Professorial Board when constituted shall elect one of their number to preside over them during the remainder of the then current Academical Year at every meeting at which neither the Chancellor nor the Vice-Chancellor shall happen to be present, and during the last term of that and of every subsequent Academical Year shall also elect one of their number to preside over them during the next ensuing Academical Year at every meeting at which neither the Chancellor nor the Vice-Chancellor shall happen to be present. Each person so elected shall be styled the Dean during his year of office.

3. The Professorial Board shall arrange the days and hours of all Lectures and Examinations and determine the subjects of all Examinations and Lectures, but every such arrangement and determination shall be made subject to the approval of the Council.

4. The Professorial Board shall prepare regulations for the maintenance of Discipline among the Students, and shall have the power of inflicting punishments for breaches of good order and propriety.

5. Every Professor and Lecturer in whose presence a breach of good order or of propriety has been committed by a Student may make a written complaint thereof under his hand to the Professorial Board, and each such complaint must be transmitted to the Dean on (at the latest) the day next succeeding that on which the conduct complained of took place, and must be brought before the Professorial Board at its meeting next after the Dean has received such complaint.

6. Whenever disorderly conduct shall occur or any breach of good order or propriety shall be committed in a class-room during the time

devoted to teaching, the Professor or Lecturer in attendance may require every misbehaving Student to withdraw at once and may dismiss each such Student from his class for that day.

7. The Professorial Board shall investigate as soon as it conveniently can each such complaint, but may when and so often as it thinks right adjourn any such investigation.

8. The Professorial Board shall through its Dean have the power

(*a*) To *Admonish* the Student complained against.

(*b*) To administer a *Reprimand* either in private or in the presence of a Class or Classes attended by the Student complained against.

(*c*) To suspend such Student temporarily from attendance on any course or courses of Instruction in the University.

(*d*) To exclude the Student from any place or places of Recreation or Study in the University for any period of time during but not extending beyond the then current academical Year.

(*e*) The Professorial Board may also recommend to the Council such other punishment as the Board shall think proper.

9. The Dean shall in each case pronounce the judgment of the Professorial Board, which judgment shall be in writing and signed by him, and shall also admonish or reprimand the Student whenever any such punishment has been awarded.

10. The Professorial Board shall prepare regulations for the management of the Library and Museum of the University.

11. The Dean shall regulate the duties of the porters and servants of the University, and shall have the power of punishing them by fine or removal.

12. The Dean shall direct his particular attention to the maintenance of order and discipline in the University.

13. The Professorial Board shall furnish to the Council such information as may be from time to time required by the Council.

14. All regulations prepared by the Professorial Board shall be laid before the Council at its next meeting for approval, and on being approved shall be in force and valid from a day to be therein fixed.

CHAPTER IV.—OF THE PROFESSORS AND LECTURERS.

1. There shall for the present be a Professor for each of the following groups of subjects, that is to say, for

a. Classics and Comparative Philology and Literature.

b. English Language and Literature and Mental and Moral Philosophy.

c. Mathematics pure and applied.

d. Natural Science, especially Geology and Mineralogy; the Professor to give lectures in Chemistry also.

2. Each Professor shall hold office *quam diu se bene gesserit*, but when and so often as sickness or other causes shall temporarily incapacitate any Professor or Lecturer from performing the duties of his office the Council may appoint a substitute to act in his stead during the continuance of such incapacity, and such substitute so long as he shall continue to act as such shall receive annually at the discretion of the Council out of the salary of the Professor or Lecturer so incapacitated such sum (not exceeding one-half of such salary), as the Council shall direct; but it shall be competent for the Council to appoint Professors for a fixed term or (by special arrangement on the appointment of any Professor) to modify the terms on which he shall hold office.

3. 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 who has been appointed by the Council and 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.

4. No Professor shall while he is such sit in Parliament or become a member of any political association, neither shall any Professor while he is such (except with the sanction of the Council) give private instruction or deliver lectures to persons not being students of the University.

5. The Professor shall not receive any persons (other than students) as boarders in their houses without the permission of the Council.

6. Each Professor shall take such part in all University Examinations as the Council shall from time to time direct, but no Professor or Lecturer shall be required to examine in any subject other than the subject or subjects which it is his duty to teach or to lecture upon.

7. There shall be such Lecturers on such subjects and for such times as the Council shall from time to time think fit to appoint.

8. On all days during Term time, except Sundays and public holidays, the whole time of each Professor 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, whose duty it shall be to attend the meetings of the Council and to keep minutes thereof, to prepare and have charge of the records of the University, to keep all

Registers which may be requisite, and to receive all fees and hand them over to the Treasurer, and to keep books of account thereof, and to conduct all correspondence and answer all enquiries connected with the University.

The Registrar shall also perform the duties of Librarian.

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, and dismiss any such deputy at their discretion.

CHAPTER VI.—OF THE SEAL OF THE UNIVERSITY.

The Seal of the University shall be entrusted to the Chancellor and shall be affixed to documents only at a meeting of the Council and by the direction thereof.

CHAPTER VII.—OF TERMS.

1. The Academical Year shall be divided into three terms.

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.

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 always be a fortnight's vacation between the first and second and second and third terms.

CHAPTER VIII.—OF MATRICULATION AND DEGREES.

1. There shall be a Matriculation Examination for all candidates who desire to become Students of the University, and no candidate shall be permitted to Matriculate who shall not have passed the Matriculation Examination, and who being a male shall not have completed the full age of sixteen years, and being a female shall not have completed the full age of eighteen years.*

2. The Matriculation Examination shall be held in each year on the first Tuesday in March, or on such other day or days as the Council shall from time to time appoint.†

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* A subsequent Statute fixes sixteen years as the age for both sexes, but empowers the Chancellor or (in his absence) the Vice-Chancellor, to admit as students younger persons.

† A second Matriculation Examination is held in December.

3. The names of all candidates who shall have passed the Matriculation Examination shall be laid before the Professorial Board, and shall be entered in a book called the "Examination Book," and shall be attested by the signatures of the Examiners.

4. Every candidate who has passed the Matriculation Examination and has completed the full age of sixteen or eighteen years as the case may be and who in the presence of the Registrar or the Deputy Registrar signs his or her name in the University Roll Book and makes and signs the declaration hereinafter mentioned shall thereby become a Matriculated Student of the University. The declaration hereinbefore referred to 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 [or eighteen years, *as the case may be.*]

5. All certificates of attendance at Lectures and Examinations shall be laid before the Professorial Board, and the names of such students as shall have been ascertained by the Board to have fulfilled the conditions required by the Regulations of the University shall at the end of each year be inscribed in the Examination Book as having completed the course for that year and be authenticated by the signature of the Dean affixed at a meeting of the Professorial Board.

6. No student shall be permitted to proceed with the business of the second or any subsequent year unless he shall have duly passed the examinations of the previous portions of the course.

7. The course for the Degree of Bachelor of Arts shall extend over three Academical Years, and must be completed by each student before he or she can attain the Degree.

8. 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 of the University until the Senate shall have been constituted, and from and after the time when the Senate shall have been constituted then at a meeting of the Council and Senate, and all members for the time being of the University shall be entitled to be present at each such meeting. Meetings for such purpose and for admitting Graduates of other Universities to Degrees in the University of Adelaide shall be held in each year on such days as the Council shall from time to time determine.

9. Bachelors of Arts of not less than two years' standing who shall have fulfilled the conditions prescribed by the Regulations of the University of Adelaide may be admitted to the Degree of Master of Arts.

10. Persons who have been admitted to Degrees in any University recognized by the University of Adelaide, and who shall produce to the Council thereof satisfactory evidence of such admission, may be admitted to the same Degrees in the University of Adelaide.

11. Every candidate for admission to any Degree in the University who is resident in the Province of South Australia shall be presented by the Dean of the Professorial Board, and whenever any candidate for admission to any Degree in the University shall be resident out of the said Province and shall have passed the final examination for such Degree and shall have fulfilled all other conditions prescribed for admission to such Degree, the name of each such candidate may notwithstanding his absence from the said Province be presented by the Dean of the Professorial Board, and each such candidate may in his absence be admitted to such Degree.

12. 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, and shall produce to the Council thereof satisfactory evidence of such completion, may be allowed corresponding standing in the University of Adelaide.

*13. The fees payable in the University shall be those specified in Schedule A.

†

15. A student who having paid the fees for any examination shall fail to pass such examination shall not be entitled to receive back the fee so paid or any part thereof.

16. The following shall be the forms of Presentation for and 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.

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*The fees payable under the statutes now in force are specified on p. 34.

† NOTE.—No. 14 has been repealed.

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 the Province of South Australia to the rank and privileges of a in the University of Adelaide.

Allowed : 28th January, 1876.

STATUTES TOUCHING THE TENURE OF THE OFFICES OF CHANCELLOR AND VICE-CHANCELLOR.

Each Chancellor who shall hereafter be elected shall hold office until the ninth day of November in the fifth year from the date of his election, and no longer.

Each Vice-Chancellor who shall hereafter be elected shall hold office until the day preceding that on which he would have retired from the Council if he had not been Vice-Chancellor.

Allowed : 7th November, 1881.

FEES.

The following is the Scale of Fees at present in force.

	£	s.	d.
Entrance Fee for Students not intending to Graduate ...	0	10	6
Fee payable by Undergraduates of other Universities for admission to same standing in the University of Adelaide	2	2	0

Fees payable in advance in each Term by every student who takes up any subject included in the course for the Degree of B.A. :

For each such subject included in the first year's course ...				0	10	0
Do.	do.	do.	second or third year's course	0	15	0

Fees payable in advance in each Term by every student who takes up any subject included in the course for the Degree of B.Sc. :

For each subject included in the first year's course... ...				0	10	0
Do.	do.	do.	second year's course...	0	15	0
Do.	do.	do.	third year's course ...	2	2	0

EXAMINATION FEES.

Fee for the Junior Examination	1	1	0
Fee for admission to Matriculation Examination	2	2	0
Fee for each subject specified in each candidate's notice for the First Ordinary Examination for B.A. or B.Sc....	0	5	0
Fee for each subject specified in each candidate's notice for the Second Ordinary Examination for B.A. or B.Sc.	0	7	6
Fee for each subject specified in each candidate's notice for the Third Ordinary Examination for B.A.	0	7	6
Fee for each subject specified in each candidate's notice for the Third Ordinary Examination for B.Sc.	1	1	0
Fee payable by a Candidate for the Angas Engineering Scholarship Examination	5	5	0
Fee payable by each Undergraduate who sends notice of his intention to present himself at a Supplementary Examination	2	2	0
Fee for the Examination for the Degree of Master of Arts	5	5	0

DEGREE FEES.

Fee for the Degree of Bachelor of Arts	3	3	0
Fee for the Degree of Bachelor of Science	3	3	0
Fee for the Degree of Master of Arts	5	5	0
Fee for Graduates of other Universities admitted to the same Degree (when not honorary) in the University of Adelaide	3	3	

JUNIOR EXAMINATION.

REGULATIONS.

I. Candidates must be under sixteen years of age on the first day of June in the year in which they present themselves for examination.

II. The subjects of examination shall be as follows :

COMPULSORY SUBJECTS.

Every candidate will be required to satisfy the Examiners in each of the following subjects :

1. *Reading and Writing* from dictation.
2. *English Grammar*, including the analysis of sentences.
3. *Writing a Short English Composition*—such as a description of a place, an account of some useful product, or the like.
4. *The Elements of Arithmetic*, including vulgar and decimal fractions.
5. *The Outlines of Geography*, and in particular the geography of Australia, Tasmania, and New Zealand.
6. *The Outlines of English History*, from the Norman Conquest, including the succession of Sovereigns, the chief events, and some account of the leading men in each reign.

OPTIONAL SUBJECTS.

III. Every candidate will further be required to satisfy the Examiners in two at least of the following divisions—A, B, C, D, and E; and no candidate will be examined in more than *three* of these divisions.

A.—ENGLISH.

1. Some selected period of English History, to be fixed from year to year.
2. A work of some classical English author, to be fixed from year to year.

Candidates must satisfy the Examiners in both of these subdivisions in order to pass in this Division.

B.—CLASSICS.

1. *Latin.*
2. *Greek.*

Candidates will be required to show a sound knowledge of the elements of Grammar, and to translate *easy* passages from English. Passages will be set for translation from Latin and Greek authors to be

previously specified, and also *easy* passages from authors not specified; bur little credit will be given for the correct rendering of these passages in the case of candidates who fail to answer satisfactorily in Grammar and in Composition.

Candidates who satisfy the Examiners either in Latin or in Greek will pass in this Division.

C.—Modern Languages.

1. *French.*
2. *German.*

Candidates will be required to show a sound knowledge of the elements of Grammar, and to translate *easy* passages from English. Passages will be set for translation from French and German authors to be previously specified, and also *easy* passages from authors not specified; but little credit will be given for the correct rendering of these passages in the case of candidates who fail to answer satisfactorily in Grammar and in Composition.

Candidates who satisfy the Examiners either in French or in German will pass in this Division.

D.—Mathematics.

1. *Algebra,* to simple equations.
2. *Geometry*: the substance of Euclid, Books I. and II., with simple exercises.

Candidates must satisfy the Examiners in both of these subdivisions in order to pass in this Division.

E.—Physical and Natural Science.

1. *Chemistry.*
2. *Elementary Physics.*
3. *Botany.*
4. *Animal Physiology.*
5. *Physical Geography.*

Candidates who pass in one of the above Sub-Divisions will pass in this Division.

IV. The Examination in the compulsory subjects shall begin on the last Tuesday in November, and that in the optional subjects on the first Tuesday in December in each year.

V. All applications for admission to the Examination must reach the Registrar at least one calendar month before the beginning of the Examination. Each application must be made according to the form prescribed below.

VI. The fee for the Examination shall be one guinea. This fee must be paid at the time at which application is made for admission to the examination.

VII. The list of successful candidates shall be published at the University at noon on the second Tuesday in December. The list shall consist of three classes, in the first two classes the names shall be arranged in order of merit, and in the third class in alphabetical order. The list shall state the place of education from which each successful candidate comes, and shall also indicate in which of the optional subjects the candidate has passed.

VIII. Each successful candidate shall be entitled to a certificate, signed by the Dean of the Professorial Board and countersigned by the Registrar, showing in what subjects the candidate passed, and in which class he or she was placed.

IX. Schedules fixing the special subjects of examination in Divisions A, B, C, and defining as far as may be necessary the range of questions to be set in each of the remaining subjects, shall be drawn up by the Professorial Board subject to the approval of the Council, and shall be published not less than fifteen calendar months before the date of the Examination to which they are intended to apply.

X. The Professorial Board shall, subject to the approval of the Council, draw up and publish a schedule of the marks to be allotted to the various subjects of examination, and shall amend this schedule from time to time, as may seem to them expedient; provided always that every such alteration shall be published not less than ten calendar months preceding the date of the examination to which it is intended to apply.

XI. The Board of Examiners shall be nominated by the Council not later than the first day of October in each year.

XII. The Board of Examiners shall, not less than twenty-eight days before the commencement of the Examination, meet and arrange the distribution of papers, and shall determine all matters necessary for the conduct of the examination. Not less than fourteen days before the commencement of the examination the Board of Examiners shall again meet; and all papers proposed to be set at the Examination shall then be laid before the Board; and no paper shall be finally printed until it has received the approval of the Board.

XIII. The Board of Examiners shall make arrangements that unsuccessful candidates may learn in which subjects they have failed to pass; provided always that no publication of the names of unsuccessful candidates shall take place.

XIV. The first examination under this scheme shall begin on the last Tuesday in November, in the year 1882. Notwithstanding

anything contained in Sections IX. and X. of the above Regulations, it shall be sufficient if the Schedules there referred to, so far as they apply to this first examination, be published within one month of the confirmation of these Regulations by the Governor; and, notwithstanding what is said in Section I. above, this first examination shall be open to all candidates who shall be under eighteen years of age on the first day of December, 1882.

XV. The regulations constituting the University Primary Examination, allowed on the twelfth day of December, 1877, and so much of the Regulations allowed on the 27th of August, 1878, as relates to the University Primary Examination fee and the reduction thereof are hereby repealed.

XVI. The following shall be the form of application for admission to the Examination :

I hereby give notice that I intend to present myself at the Junior Examination commencing on the day of November next, in the Compulsory Subjects, and also in the following Optional Subjects :

Name of candidate in full.....
Address.....
Date of birth .....
Last place of education.....
Signature of candidate.....

Date.....

DETAILS OF THE OPTIONAL SUBJECTS.

A. English.

1. History of England, the reigns of Henry VIII. to Elizabeth, inclusive.
2. Shakespeare's "Tempest."

Text-books recommended

The Student's Hume.
Green's Short History of the English People.

B. Classics.

1. Latin
   Cicero—Pro Archia.
2. Greek
   Luciani—Somnium, Charon.

} Pitt Press edition.

C. Modern Languages.

1. French
   De Maistre—La jeune Sibérienne, and Le lépreux de la Cité d'Aoste (Pitt Press edition).
2. German
   Wagner—Book of Ballads on German History (Pitt Press edition).

D. Mathematics.

1. Algebra
   To simple equations.
2. Geometry
   The substance of Euclid, Books I. and II., with simple exercises.

E. Physical and Natural Science.

1. Chemistry (Inorganic)

Simple and compound matter. Different modes of Chemical action. Principles of Chemical nomenclature. Chemical formulæ. Classification of elements.

Preparations and properties of Hydrogen, Chlorine, Oxygen, Carbon, Nitrogen, and Sulphur, and of their simpler compounds.

2. Elementary Physics

The elementary laws of Rest and Motion of Solids, Liquids, and Gases.

The questions will be designed to test the candidates' practical acquaintance with the fundamental experiments and with the more important inferences to be drawn from them.

3. Botany

The questions will be confined to the *general structure of the flowering plant* with especial reference to the following illustrative plants :—*Wallflower, castor oil tree, pea, gum-tree, sow-thistle, lily, wild oat, and snap-dragon.*

4. Animal Physiology

Text-books

Foster's Primer of Physiology.

Huxley's Elementary Lessons in Physiology, Lesson XII.

Students are recommended to consult also other parts of the Elementary Lessons, especially those relating to the special senses.

Candidates will be expected to show a practical acquaintance with the position, appearance, and general structure of the principal organs of the body, and to recognize microscopic and other specimens of the elementary tissues as described in Lesson XII. of the Elementary Lessons.

5. 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 cause.

(*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.

Schedule of marks prepared under No. X. of the foregoing Regulations:

COMPULSORY SUBJECTS.

1. Reading, and writing from dictation	
2. English Grammar, including the analysis of sentences	
3. Writing a short English Composition, such as a description of a place, an account of some useful product, or the like	150
4. The elements of Arithmetic, including vulgar and decimal fractions ...	150
5. The outlines of Geography, and in particular the Geography of Australia, Tasmania, and New Zealand	100
6. The outlines of English History from the Norman Conquest, including the succession of sovereigns, the chief events, and some account of the leading men in each reign	100

OPTIONAL SUBJECTS.

A. English	200
B.1. Latin	150
B.2. Greek	150
C.1. French	100
C.2. German	100
D. Mathematics	300
E. 1. Chemistry	100
E. 2. Elementary Physics	100
E. 3. Botany	100
E. 4. Animal Physiology	100
E. 5. Physical Geography	100

MATRICULATION EXAMINATION.

REGULATIONS.

I. The subjects of examination shall be as follows :

COMPULSORY SUBJECTS.

1 to 6. The same as in the Junior Examination.

Candidates who have previously passed the Junior Examination will not be required to present themselves again in these subjects.

7. *Latin*, except in the case of female candidates, who may substitute *French* from Division C below.

In Latin, candidates will be required to show a sound knowledge of the elements of Grammar, and to translate *easy* passages from English. Passages will be set for translation from some Latin author to be previously specified, and also *easy* passages from authors not specified; but little credit will be given for the correct rendering of these passages in the case of candidates who fail to answer satisfactorily in Grammar and in Composition.

8. *Mathematics*, viz :

Arithmetic, including the theory of the various processes.

Algebra, to simple equations.

The substance of Euclid, Books I. and II., with simple exercises.

OPTIONAL SUBJECTS.

II. Every candidate will further be required to satisfy the Examiners in two at least of the following Divisions : A, B, C, D, E, F, G; and of these two either A, or B, or C must be one; and no candidate will be examined in more than *three* of these divisions.

A. CLASSICS.

1. *Latin.*
2. *Greek.*

Candidates who satisfy the Examiners in either Greek or Latin will pass in this Division.

B. MATHEMATICS.

1. *Algebra*, as far as the Binomial Theorem for a positive integral exponent.
2. The substance of *Euclid*, Books I., II., III., IV., VI.
3. *Elementary Trigonometry.*

Candidates who pass in Algebra and in Geometry will pass in this Division.

C. Modern Languages.

1. *French.*
2. *German.*
3. *Italian.*

Candidates who satisfy the Examiners in one of these languages will pass in this Division. No candidate will be examined in more than *two* of the languages of this Division.

In the case of female candidates who have in the Compulsory Subjects substituted French for Latin, French will *not* be reckoned as one of the languages of this Division.

D. English.

1. *Composition.*
2. *The English Language.*
3. *English Literature:* A work of some classical English author, to be fixed from year to year.

Candidates must satisfy the Examiners in all of these subdivisions in order to pass in this Division.

E. Physical Science.

1. *Chemistry*, with the cognate portions of *Physics.*
2. *Natural Philosophy.*

Candidates who satisfy the Examiners in either of these subdivisions will pass in this Division.

F. Natural Science.

1. *Animal Physiology.*
2. *Botany.*
3. *Geology.*

Candidates who satisfy the Examiners in one of these subdivisions will pass in this Division.

G. History.

1. *Ancient History:* Some selected period to be fixed from year to year.
2. *Modern History:* Some selected period to be fixed from year to year.

III. The examination shall be held twice in each year, in the first and third terms, at dates to be fixed by the Council.

IV. All applications for admission to the examination must reach the Registrar at least one calendar month before the beginning of the examination. Each application must be made according to the form prescribed below.

V. The fee for the examination shall be two guineas. This fee must be paid at the time at which application is made for admission to the examination. If a candidate withdraw from, or fail to pass the examination the fee shall not be returned, but the candidate shall be admitted to one subsequent Matriculation Examination without the payment of any additional fee, provided the usual notice be given to the Registrar.

VI. The list of successful candidates shall be published at the University at noon on the Tuesday next after the close of the examination. The list shall consist of three classes; in the first two classes the names shall be arranged in order of merit, and in the third class in alphabetical order. The list shall state the place of education from which each successful candidate comes, and shall also indicate in which of the optional subjects the candidate has passed.

VII. Each successful candidate shall be entitled to a certificate, signed by the Dean of the Professorial Board and countersigned by the Registrar, showing in what subjects the candidate passed, and in which class he or she was placed.

VIII. Schedules fixing the special subjects of examination in Divisions A, C, D, G, and defining as far as may be necessary the range of questions to be set in each of the remaining subjects, shall be drawn up by the Professorial Board subject to the approval of the Council, and shall be published not less than fifteen calendar months before the date of the examination to which they are intended to apply.

IX. The Professorial Board shall, subject to the approval of the Council, draw up and publish a schedule of the marks to be allotted to the various subjects of examination, and shall amend this schedule from time to time as may seem to them expedient; provided always that every such alteration shall be published not less than ten calendar months preceding the date of the examination to which it is intended to apply.

X. The Board of Examiners shall be nominated by the Council not later than the first day of October in each year.

XI. The Board of Examiners shall, not less than twenty-eight days before the commencement of the Examination, meet and arrange the distribution of papers, and shall determine all matters necessary for the conduct of the Examination. Not less than fourteen days before the commencement of the Examination the Board of Examiners shall again meet; and all papers proposed to be set at the Examination shall then be

laid before the Board; and no paper shall be finally printed until it has received the approval of the Board.

XII. The Board of Examiners shall make arrangements that unsuccessful candidates may learn in which subjects they have failed to pass; provided always that no publication of the names of unsuccessful candidates shall take place.

XIII. The first examination under this scheme shall begin on the last Tuesday in November in the year 1882; and notwithstanding anything contained in sections VIII. and IX. of the above Regulations, it shall be sufficient if the schedules there referred to, so far as they apply to this first Examination, be published within one month of the confirmation of these Regulations by the Governor.

XIV. The following shall be the form of application for admission to the Examination:

I hereby give notice that I intend to present myself at the Matriculation Examination commencing on the day of next, in the compulsory subjects, and also in the following optional subjects:

Name of candidate in full.....

Address.....

Date of birth.....

Last place of education.....

Signature of candidate.....

Date.....

If the candidate claims exemption from examination in the Compulsory Subjects, 1 to 6, on the ground of having previously passed the Junior Examination, the following additional form must also be filled up:

I further claim exemption from renewed examination in the Compulsory Subjects numbered 1 to 6, having passed the Junior Examination held in the year 188 , when I was placed in the class.

Signature of candidate.....

Date.....

Allowed: 4th January, 1882.

*DETAILS OF SUBJECTS FOR THE MATRICULATION EXAMINATIONS TO BE HELD IN DECEMBER, 1882, AND MARCH, 1883.

COMPULSORY SUBJECTS.

1 to 6. The same as in the Junior Examination.

7. LATIN.
   Livy: Book I.

8. MATHEMATICS.
   Both in Arithmetic and in Algebra candidates will be expected to show not merely proficiency in the use of the various rules and processes, but also a knowledge of the reasoning on which these are based.
   In Geometry candidates will not be restricted to Euclid's methods of proving the various propositions; and any proofs that are strictly geometrical will be accepted.

OPTIONAL SUBJECTS.

A. CLASSICS.

1. LATIN.
   Livy: Book I.
   Horace: Odes, Books I., II.

2. GREEK.
   Homer: Iliad, Book III.
   Euripides: Alcestis.
   Translation of simple English into Greek.

B. MATHEMATICS.

1. ALGEBRA, as far as the Binomial Theorem for a positive integral exponent.
2. The Substance of EUCLID, Books I., II., III., IV., VI.
3. ELEMENTARY TRIGONOMETRY.

C. MODERN LANGUAGES.

1. FRENCH.
   Moliere: Les Fourberies de Scapin.
   Racine: Athalie.
   Clarendon Press edition.

2. GERMAN.
   Goethe: Hermann und Dorothea.

3. ITALIAN.
   Silvio Pellico: Le mie Prigioni.

In each of the above subdivisions *easy* passages will also be set for translation from authors not specified. Candidates will also be required to answer questions on Grammar, and to translate *easy* passages from English.

D. ENGLISH.

1. COMPOSITION.
2. THE ENGLISH LANGUAGE.
3. ENGLISH LITERATURE.
   Shakespeare: King Lear.

E. PHYSICAL SCIENCE.

1. CHEMISTRY, with the cognate portions of PHYSICS:
   Simple and compound matter. Different modes of chemical action. Principles of chemical nomenclature. Chemical formulæ. Classification of elements.

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* The details for the Matriculation Examination in March, 1882, will be found in the Calendar for 1881.

Preparation and properties of hydrogen, chlorine, oxygen, carbon, nitrogen, iodine, and sulphur, and of their simpler compounds.

The theory of the Balance, Specific Gravity and the methods of determining it, the Laws of Gases; construction and theory of the Air-Pump, Barometer, Thermometer; Conduction, Convection, and Radiation of Heat; Specific Heat, Latent Heat.

2. NATURAL PHILOSOPHY.

Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics.

F. NATURAL SCIENCE.

1. ANIMAL PHYSIOLOGY.

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

Students are strongly recommended to consult also The Course of Practical Physiology, by Foster and Langley.

Candidates will be required to show a practical acquaintance with the position, appearance, and structure of the most important tissues and organs of the body; and will be expected to identify microscopic and other specimens of these, and may be called upon to perform some easy exercise in dissection. Candidates should also be familiar with the ordinary methods of preparing and mounting physiological specimens for the microscope.

2. BOTANY.

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

Candidates will be required to describe in technical language the organs of fresh plants in the following order:

Root	Calyx	Fruit
Stem	Corolla	Seed
Leaves	Stamens	Embryo
Inflorescence	Pistil	
Bracts	Ovule	

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

3. 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 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.

G History.

1. Ancient History.

"The Romans under the Empire."
Text-book recommended—Merivale's History.

2. Modern History.

"The Reigns of Elizabeth, James I., and Charles I."
Text-books recommended—Hume and Hallam.

Schedule of Marks prepared under No. IX. of the foregoing Regulations:

Compulsory Subjects.

1. Reading, and writing from dictation	
2. English Grammar, including the analysis of sentences	
3. Writing a short English Composition, such as a description of a place, an account of some useful product, or the like	150
4. The elements of Arithmetic, including vulgar and decimal fractions ...	150
5. The outlines of Geography, and in particular the Geography of Australia, Tasmania, and New Zealand	100
6. The outlines of English History from the Norman Conquest, including the succession of Sovereigns, the chief events, and some account of the leading men in each reign	100
7. Latin	200
or (in the case of female candidates who substitute French)	
French	150
8. Mathematics	250

The marks obtained in the first six of the Compulsory Subjects will not be taken into account in deciding the relative positions of the candidates in the Class Lists.

Optional Subjects.

A.1. Latin	300
A.2. Greek	400
B.1. Algebra	200
B 2. Geometry	200
B.3. Trigonometry	100
C.1. French	250
C.2. German	250
C.3. Italian	250
D. English	250
E.1. Chemistry, with the cognate portions of Physics...	150
E.2. Natural Philosophy	150
F.1. Animal Physiology	150
F.2. Botany	150
F.3. Geology...	150
G.1. Ancient History	100
G.2. Modern History	100

MEDICAL STUDENTS.—The Royal College of Surgeons of England recognises the First-Class certificate of having passed the Matriculation Examination, and the Degree of B.A., of this University, as exempting Candidates from the necessity of passing the Preliminary Examination for the Diploma of Member of the College.

The General Council of Medical Education and Registration of the United Kingdom has recognised the Matriculation Examination of the University of Adelaide, and inserted it in the list of Examinations fulfilling the conditions of the Medical Council as regards Preliminary Examination; and has intimated that

"On and after the first day of January, 1882, no person shall be allowed to be registered as a Medical Student unless he shall have previously passed a Preliminary Examination in the subjects of General Education as specified in the following list :—

(1) English Language, including Grammar and Composition ; *
(2) English History ;
(3) Modern Geography ;
(4) Latin, including Translation from the original and Grammar ;
(5) Elements of Mathematics, comprising (*a*) Arithmetic, including Vulgar and Decimal Fractions ; (*b*) Algebra, including Simple Equations ; (*c*) Geometry, including the first two books of Euclid or the subjects thereof ;
(6) Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics ; †
(7) One of the following Optional Subjects :—
(*a*) Greek ; (*b*) French ; (*c*) German ; (*d*) Italian ; (*e*) any other Modern Language ; (*f*) Logic ; (*g*) Botany ; (*h*) Elementary Chemistry."

CIVIL SERVICE.—Under the Civil Service Regulations the Matriculation Examination of this University is recognised as qualifying Candidates for admission to the Civil Service.

ARTICLED CLERKS.—Under the Rules of the Supreme Court no person can be articled to a Solicitor until he has passed the Matriculation Examination of the University of Adelaide, or that of some University recognised by it, or a Preliminary or Intermediate Examination which articled Clerks in the United Kingdom are required to pass. [See the *South Australian Government Gazette* for October 5, 1876, p. 2,019, *et seq.*]

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* "The General Medical Council will not consider any Examination in the English Language sufficient that does not fully test the ability of the Candidate :—(1) To write sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition ;—(2) to write correctly from dictation ;—(3) to explain the grammatical construction of sentences ;—(4) to point out the grammatical errors in sentences ungrammatically composed, and to explain their nature ; and (5) to give the derivation and definition of English words in common use."

† "This subject may be passed either as Preliminary, or before or at the first Professional Examination."

OF THE DEGREE OF BACHELOR OF ARTS.*

REGULATIONS.

I. 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.

II. The Ordinary Examinations shall be held within the last fortnight of the closing term of each academical year.

III. At the First Ordinary Examination for the Degree of Bachelor of Arts 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 Natural Philosophy.*
5. *Deductive Logic.*

IV. At the Second Ordinary Examination for the Degree of Bachelor of Arts every candidate shall be required to satisfy the Examiners in each of the following subjects :

1. *Latin* } *including Ancient History.*
2. *Greek* }
3. *Elementary Applied Mathematics.*
4. *English Language and Literature.*
5. *Inductive Logic.*

V. At the Third Ordinary Examination for the Degree of Bachelor of Arts every candidate shall be required to satisfy the Examiners in each of the following subjects :

1. *Latin.*
2. *Greek.*
3. *Comparative Philology.*
4. *Mathematics.*
5. *Political Economy.*

VI. 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 Professorial Board, subject to the approval of the Council, and shall be published not later than the month of January in each year.

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* The old Regulations, printed in preceding Calendars, apply to Undergraduates who shall have completed before April, 1882, the first year of the B. A. course.

VII. No candidate shall at any Ordinary Examination be allowed to present himself in any subject in which he has failed to gain credit for attendance at the University lectures during the current academical year, except in cases where attendance on lectures may have been dispensed with by special order of the Council.

VIII. No student shall in any academical year be credited with attendance at the University lectures on any subject unless he shall have attended in each term 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.

IX. The names of the successful candidates at each Ordinary Examination shall be arranged in three classes, in alphabetical order in each, according to the results of the whole examination.

X. The Examiners at any Ordinary Examination may permit such unsuccessful candidates as they may think proper to present themselves at a Supplementary Examination to be held at the beginning of the next academical year. Candidates who pass this Supplementary Examination shall be held to have completed the preceding academical year.

XI. All other unsuccessful candidates shall be required to pass through an additional year of study before again presenting themselves for Examination.

XII. Any Student of the University may at any Ordinary Examination present himself in any subject in which he has gained credit for attendance at the University Lectures during the current academical year.

XIII. Any Student who shall have passed in any subject of an Ordinary Examination shall be entitled to a certificate showing in what subjects he has passed.

XIV. 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 Arts, 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 £ , being for each of the above subjects.

(Signed).....

Dated this day of 188 .

The Registrar,
University of Adelaide.

Form of Notice to be sent to the Registrar by Students not studying for Degrees of their intention to present themselves for Examination.

I, a Student of this University, hereby give notice that I intend to present myself at the Ordinary Examination in the term of 188 , for examination in the following subjects, viz.:

1. 4.
2. 5.
3.

I send herewith the precribed fee of £ , being for each of the above subjects.

(Signed).....

Dated this day of 188 .

The Registrar,
University of Adelaide.

Allowed : 4th January, 1882.

Schedules drawn up under No. VI. of the foregoing Regulations for the First Year's Course, and under the old Regulations for the Second and Third Years' Courses :

DETAILS OF SUBJECTS FOR THE ORDINARY EXAMINATIONS IN NOVEMBER, 1882, AND MARCH, 1883.

FIRST YEAR'S COURSE.

LATIN.

The subjects are :

Horace—Odes and Carmen Seculare.
Cicero—Pro Murenâ.

GREEK.

The subjects are :

Herodotus—VI.
Æschylus– Eumenides.
Prose Composition.

At the First Ordinary Examination a separate paper, containing questions in Latin and Greek Grammar, with simple and easy sentences of English to be translated into Latin, will be set.

PURE MATHEMATICS (Elementary).

The Geometry of the straight line and circle ; the Theory of Proportion and of Similar Rectilinear figures.
The Elements of Algebra, as far as the Binomial Theorem (exclusive).

The Measurement of Angles, the definitions of the Trigonometrical ratios, and the relations between them for one and for two angles; the simpler relations between the sides and angles of triangles; the properties and use of logarithms.

Text-books recommended:

Wilson's Elementary Geometry; Todhunter's Euclid and Algebra for Beginners; J. H. Smith's Elementary Trigonometry.

NATURAL PHILOSOPHY (Elementary).

A general outline of Physics.

Text-book recommended:

Everett's Text-book of Physics.

DEDUCTIVE LOGIC.

Text-book—Jevons' Elementary Logic.

SECOND YEAR'S COURSE.

LATIN.

The subjects are:

Ovid—Heroides.
Plautus—Mostellaria, Captivi.
Prose Composition.

GREEK.

The subjects are:

Aristophanes—Vespæ.
Hesiod—Works and Days, and
Theocritus—Idylls, 1 to 18.
Prose Composition.

ANCIENT HISTORY.

Greek History from B.C. 479 to B.C. 400.
History of Rome under the Republic.

MATHEMATICS (Elementary Applied).

The Elements of Kinetics, Statics and Hydrostatics, treated with the help of so much Pure Mathematics as is included in the first year's course.

DEDUCTIVE LOGIC.

Text-book:

Jevons' Elementary Logic.

MATHEMATICS (Higher Pure).

The Binomial Theorem, the theory of Convergent and Divergent Series, the Exponential and Logarithmic Series, the construction of Logarithmic Tables, the elements of the theory of Probability, Notation. The solution of triangles, the properties of a triangle and its associated circles, the construction of trigonometrical tables, the geometrical representation of complex quantities, De Moivre's Theorem and the principal theorems derived from it, the simpler trigonometrical series. Analytical Geometry. The theory of lines of the first and second degrees.

PHYSICS.

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

Properties of Matter: Deviations from Boyle's Law, Elasticity, Viscosity, Capillarity, Endosmose, Diffusion.

Sound: The general theory of Waves and Vibrations. Water waves. Lissajons' and other optical methods of studying vibrations. Waves in Solids, Longitudinal Vibrations of Rods, Vibrations of Bars and Plates. Analysis of Sounds, Theory of Quality, Theory of Consonance and Dissonance. Combination Tones.

Light: Photometry. Methods of measuring the Velocity of Light. Spherical Aberration. Caustics, Focal Lines. Measurement of Refractive Indices. Theory of Optical Instruments, and measurement of Magnifying Power. Dispersion, Achromatism. Study of Spectra. Theory of Colour. The elements of Physical Optics: viz., the simpler phenomena of Interference, Diffraction, and Polarization, with their explanations.

Heat: Thermal properties of bodies. Methods of Calorimetry. Conduction of Heat. Radiation and Absorption. Outlines of the Molecular Theory of Gases. First Law of Thermodynamics.

Electricity and Magnetism: Modes of producing Electricity. Distribution of Electricity, Induction. Electric Potential, Lines of Force. Specific Inductive Capacity. Atmospheric Electricity. Electrometers. Electrical machines.

Magnetism, Magnetic Induction, Magnetic Potential, and Lines of Force.

Voltaic Batteries, Electromotive Force, Ohin's Law, Resistance, Electrolysis, Polarization. Thermal properties of the Electric Current. Thermo-electricity.

Electro-magnetism. Experiments of Oersted and Ampère. Galvanometers. Laws of Induction. Construction of Induction Coils, Magneto-electric and Dynamo-electric machines, Electrometers.

Text-book:

Deschanel's Natural Philosophy.

CHEMISTRY (Inorganic and Organic).

Classification and Characters of Metals.

Description of the following elements and their compounds:—Potassium, Sodium, Silver, Barium, Strontium, Calcium, Zinc, Magnesium, Mercury, Copper, Gold, Platinum, Tin, Lead, Aluminium, Iron, Manganese, Cobalt, Nickel, Arsenic, Antimony, Bismuth, Chromium.

The chief applications of Chemistry in the Arts and Manufactures.

Calculation of empirical formulæ.

The elements of Organic Chemistry. Chief constituents of organic substances. Fibrin, Casein, Gelatine; cellulose, starch, gum, sugar, fatty and oily bodies. Principal vegetable acids and alkaloids.

Alcohol and its chief derivatives. Fermentation. Methylic Alcohol.

BIOLOGY (Botany and Zoology).

BOTANY.

The teaching will be conducted as far as practicable with reference to actual illustrative specimens. The chief subjects lectured upon will be:

1. The chemistry of the compounds forming the principal part of the structure of plants.
2. Vegetable Histology.
3. The general structure and physiology of a flowering plant.
4. The morphology and physiology of fungi and algæ.
5. The characters and general properties of the chief natural orders of Australian plants, including Cruciferæ, Caryophyllaceæ, Malvaceæ, Rutaceæ, Leguminosæ, Myrtaceæ, Umbelliferæ, Compositæ, Goodenovieæ, Epacrideæ, Scrophulariaceæ, Myoporineæ, Solanaceæ, Labiatæ, Chenopodiaceæ, Amarantaceæ, Proteaceæ, Euphorbiaceæ, Orchidaceæ, Liliaceæ, Cyperaceæ, and Gramineæ.

6. The broad facts of the geographical distribution of flowering plants.

Candidates will be required to prove a practical acquaintance with the morphology and physiology of plants, and with the chief constituents of the local flora.

Text-books :

Balfour. Text-book of Botany.
Bentham. Flora Australiensis.

ZOOLOGY.

The teaching will be conducted as far as practicable with reference to actual illustrative specimens. The lectures will embrace :

Inheritance and variation, Origin of Species.
Principles of classification.
Morphology and physiology of the Protozoa and Cœlenterata.
The structure, functions, and distribution in time and space of the different classes of the Mollusca and Annulosa.
The anatomy and physiology of the skeleton, of the alimentary, circulatory, nervous, and respiratory organs in fish, amphibia, reptiles, birds, and mammals.
The characters of the orders of the Vertebrata.
The broad facts relating to the geographical and geological distribution of the Vertebrata.

Text-books :

Nicholson's Manuals of Zoology and Palæontology.
Hutton's Zoological Exercises (Dunedin.)
Huxley's Practical Biology.

THIRD YEAR'S COURSE.

LATIN.

The subjects are

Ovid—Heroides.
Plautus—Mostellaria, Captivi.
Prose Composition.

GREEK.

The subjects are :

Aristophanes—Vespæ.
Hesiod—Works and Days.
Theocritus—Idylls 1 to 18.
Prose Composition.

COMPARATIVE PHILOLOGY :—Peile's Introduction to Latin and Greek Etymology.

INDUCTIVE LOGIC.

Text book :

Fowler's Inductive Logic.

MATHEMATICS (Advanced).

The Elements of the Differential and Integral Calculus, and of Analytical Geometry of Three Dimensions, with their simpler physical applications.

Or :

Elementary Spherical Geometry and Trigonometry, Practical Astronomy, and the outlines of the theory of Elliptic motion and of the Lunar Theory (treated geometrically).

PHYSICS—

As prescribed for the second year.

MINERALOGY AND GEOLOGY.

Mineralogy.—The course of lectures in Mineralogy will comprise

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.

The following text-books may be used:

Collins—A First Book of Mineralogy.
Dana—Manual of Mineralogy.
Mitchell's Crystallography.
Scheerer's Use of the Blowpipe

GEOLOGY.

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 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. Historical Geology. The typical rocks and characteristic fossils of the Palæozoic, Mesozoic, and Cainozoic systems of Europe.

The Azoic rocks of South Australia, their metamorphic character, igneous rocks, succession, industrial value.

The Silurian and Devonian strata in New South Wales and Victoria, South Australian equivalents.

The Carboniferous strata in New South Wales, typical rocks and fossils, Triassic and Jurassic strata in Victoria, typical rocks and fossils. Jurassic rocks of South Australia. Cretaceous fossils of Queensland and West Australia. Typical rocks and characteristic fossils of the South Australian Tertiary epochs. Relation to existing fauna. Bone caves. Glacial and volcanic phenomena of this period.

As text books may be used:

Jukes—Manual of Geology
Lyell—Student's Manual of Geology
Tate—Student's Class Book of Geology

but more advanced works should be consulted.

BIOLOGY.

As prescribed for the Second Year.

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 Professorial Board, 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.

Allowed : 4th January, 1882.

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—Apology 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 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.

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.

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*Prescribed for special study for the examination to be held in December, 1882.
†Prescribed for special study for the examination to be held in December, 1883.

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. 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.

II. The Ordinary Examinations shall be held within the last fortnight of the closing term of each academical year.

III. At the First Ordinary Examination for the Degree of Bachelor of Science every candidate shall be required to satisfy the Examiners in the following subjects :

1. Two of the following languages : *Latin*, *Greek*, *French*, *German*.
2. *Pure Mathematics*, or *Elementary Applied Mathematics*.
3. *Elementary Natural Philosophy*.
4. *Deductive Logic*.

IV. At the Second Ordinary Examination for the Degree of Bachelor of Science every candidate shall be required to satisfy the Examiners in each of the following subjects :

1. *Elementary Applied Mathematics*, or *Higher Pure Mathematics*.
2. *Physics*.
3. *General Biology*.
4. *Inorganic Chemistry*.
5. *Inductive Logic*.

V. At the Third Ordinary Examination for the Degree of Bachelor of Science every candidate shall be required to satisfy the Examiners in *two* of the following subjects :

1. *Mathematics*.
2. *Physics*, including *Practical Physics*.
3. *Chemistry*, especially *Organic Chemistry* and *Laboratory work*.
4. *Animal Physiology*, including *Histology*, *Physiological Chemistry*, and *Development*.
5. *Zoology* and *Comparative Anatomy*.
6. *Systematic Botany*, including *Vegetable Morphology* and *Physiology*.
7. *Geology*, *Mineralogy*, and *Palæontology*.
8. *Metallurgy*, *Practical Chemistry*, and *Mineralogy*.

VI. Schedules fixing the special authors and works to be studied in Latin, Greek, French, and German, and defining as far as may be necessary the range of questions to be set in other subjects shall be drawn up by the Professorial Board, subject to the approval of the Council, and shall be published not later than the month of January in each year.

VII. No candidate shall at any Ordinary Examination be allowed to present himself in any subject in which he has failed to gain credit for attendance at the University lectures during the current academical year, except in cases where attendance on lectures may have been dispensed with by special order of the Council.

VIII. No student shall in any academical year be credited with attendance at the University lectures on any subject unless he shall have attended in each term 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.

IX. The names of the successful candidates at each Ordinary Examination shall be arranged in three classes, in alphabetical order in each, according to the results of the whole examination.

X. At the third Ordinary Examination every candidate shall be expected to have a thorough knowledge, both practical and theoretical, of at least *one* of the subjects selected by him, and no candidate shall be placed in the *First* Class who has not displayed *great* proficiency in at least *one* such subject. Candidates may present themselves in one *additional* subject; but *no* credit in such third subject shall be given to any candidate who does not appear to the Examiners to have shown a competent knowledge of it. When a candidate is placed in the *First* Class the subject or subjects for knowledge whereof he is placed in that class shall be signified in the published lists.

XI. The Examiners at any Ordinary Examination may permit such unsuccessful candidates as they may think proper to present themselves at a Supplementary Examination to be held at the beginning of the next academical year. Candidates who pass this Supplementary Examination shall be held to have completed the preceding academical year.

XII. All other unsuccessful candidates shall be required to pass through an additional year of study before again presenting themselves for examination.

XIII. Any Student of the University may at any Ordinary Examination present himself in any subject in which he has gained credit for attendance at the University Lectures during the current Academical Year.

XIV. Any Student who shall have passed in any subject of an Ordinary Examination shall be entitled to a certificate showing in what subjects he has passed.

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 Science, 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 £ , being for each of the above subjects.

(Signed).....

Dated this day of , 188 .

The Registrar,
University of Adelaide.

Form of Notice to be sent to the Registrar by Students not studying for Degrees of their intention to present themselves for Examination.

I, a Non-Matriculated Student of this University, hereby give notice that I intend to present myself at the Ordinary Examination in the Term, for examination in the following subjects:

1. 4.
2. 5.
3.

And I send herewith the prescribed fee of £ , being for each of the above subjects.

(Signed).....

Dated this day of 188 .

The Registrar,
University of Adelaide.

Allowed: 4th January, 1882.

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

DETAILS OF SUBJECTS FOR THE ORDINARY EXAMINATION IN NOVEMBER, 1882, AND MARCH, 1883.

FIRST YEAR'S COURSE.

LATIN.
GREEK.
PURE MATHEMATICS.
ELEMENTARY NATURAL PHILOSOPHY.
DEDUCTIVE LOGIC

The same as prescribed for the first year of the B.A. course.

ELEMENTARY APPLIED MATHEMATICS.

As prescribed for the second year of the B.A. Course.

FRENCH.

Molière—L'École des Femmes;
Voltaire—Le Siècle de Louis XIV.;

Brachet—Historical French Grammar (Clarendon Press edition).
Passages will also be set for translation from authors not previously specified; and also passages for translation from English into French.

GERMAN.

Goethe—Götz von Berlichingen ; and *Iphigenie ;*
Lessing—Minna von Barnhelm.
Passages will also be set for translation from authors not previously specified; and also passages for translation from English into German.

SECOND YEAR'S COURSE.

ELEMENTARY APPLIED MATHEMATICS, or HIGHER PURE MATHEMATICS. PHYSICS. } The same as prescribed for the second year of the B. A. course.

GENERAL BIOLOGY.

Structure, functions, and life history of the yeast plant and of Amœba.
Morphology and Histology of a Fern and of a Flowering plant.
General principles of Vegetable Nutrition.
Structure, functions, and life history of the following animals, as types of the chief divisions of the Animal Kingdom :—sea anemone, fresh-water mussel, slug, squid, earth-worm, cray-fish, dragon-fly, frog.

Text-books recommended :
Huxley's Practical Biology.
Hutton's Zoological Exercises.

INORGANIC CHEMISTRY.

The general principles of chemical combination by weight. Notation and Nomenclature. The classification of the elements and the principles of the leading chemical theories. Oxygen, Ozone. Hydrogen, Water, Distillation, Filtration. Nitrogen, Carbon, Carbonic oxide, and Carbonic acid. The Atmosphere, Diffusion of gases. The Oxides of Nitrogen, Ammonia. Chlorine, Bromine, and Iodine, and their Compounds with Oxygen and Hydrogen. Cyanogen. Theory of acids and salts ; of Bleaching. Sulphur. Sulphurous acid. Sulphuric acid. Sulphuretted Hydrogen. Laws of Combination by volume. Phosphorus, its Oxygen compounds, Phosphuretted Hydrogen. Principal Hydrogen compounds of Carbon. Combustion and the structure of Flame. Boron, Boric acid.
Classification and Characters of Metals.
Description of the following elements and their compounds :—Potassium, Sodium, Silver, Barium, Strontium, Calcium, Zinc, Magnesium, Mercury, Copper, Gold, Platinum, Tin, Lead, Aluminium, Iron, Manganese, Cobalt, Nickel, Arsenic, Antimony, Bismuth, Chromium.
The chief applications of Chemistry in the Arts and Manufactures. Calculation of empirical formulæ.

Text-books recommended :
Wilson's Elementary Chemistry.
Fownes's Elementary Chemistry.

INDUCTIVE LOGIC.

Text-book recommended :
Fowler's Inductive Logic.

OF NOTICES FOR AND CONDUCT AT EXAMINATIONS.

REGULATIONS.

Every candidate for any University examination shall, not less than one calendar month and not more than six weeks before the commencement of such examination, enter his or her name for such examination by furnishing to the Registrar in the prescribed form the particulars therein specified.

No entry for any examination shall be received unless and until the fee for that examination shall have been paid.

If during any examination whatever, any candidate use book or notes, or give assistance to another candidate, or through culpable negligence allow any other candidate to copy from or otherwise use his or her papers, or accept assistance from any other candidate, or fraudulently use any paper of any other candidate, he or she shall lose that examination, and shall be liable to such further punishment by exclusion from future examinations or otherwise as the Council on the report of the Professorial Board shall award; and if detected at the time, shall be summarily dismissed from the examination room.

Academic Dress.

Regulations.

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

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 this day 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; and for Bachelors of Laws, the colour known as "Napoleon blue."

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.

Notwithstanding anything contained in the foregoing Regulations 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.

Allowed : 21st August, 1878.

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 in future be awarded on the recommendation of the Council of the University. Candidates 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 two years immediately preceding that day. The University will hold the second of these examinations in March, 1882, and applications for admission to it must be made to the Department of Education before the 31st January, 1882.

[illegible] unless the

ADELAIDE UNIVERSITY CALENDAR FOR 1882.

CORRIGENDA.

P. 65, in paragraph 7, line 2, substitute "1883" for "1882."

And on p. 66 substitute "1882" for "1883."

[illegible]
March, 1882 :

Papers will be set in the following subjects ; no credit will be allowed for any paper in which a candidate fails to obtain one-third of the marks.

DIVISION I. CLASSICS.

(1.) *Latin.* Cicero in Verrem, Actio Prima.
Translation of an easy passage into Latin.

(2.) *Greek.* Demosthenes de Coronâ.
Sophocles, Oedipus Rex.
Translation of an easy passage into Greek.

DIVISION II. MATHEMATICS.

(1.) *Geometry.* The substance of Euclid, Books III., IV., and VI., with exercises. (Any purely geometrical proof will be accepted.)

(2.) *Arithmetic.* The higher rules.

(3.) *Algebra*, as far as the proof of the Binomial Theorem for a positive integral exponent.

(4.) *Plane Trigonometry*, as far as the solution of triangles, with the nature and use of logarithms.

DIVISION III. ENGLISH LANGUAGE AND LITERATURE.

(1.) *Earle's* Philology of the English Tongue, cc.I. to IX, inclusive.

(2.) History of English Literature to the Accession of Queen Elizabeth.

(3.) *Shakespeare.* Hamlet.
Spenser. Fairy Queen. Bk. I.

(4.) An English essay on a subject to be prescribed.

DIVISION IV. MODERN LANGUAGES.

(1.) French, or

(2.) German.

Passages will be set for translation and re-translation, and also questions on the Grammar.

*** A *vive voce* examination will be held in each subject, should the examiners think it desirable. The marks allowed for Divisions I. and II. will be twice as many as those allowed for Divisions III. and IV.

The following are the details of the examination to be held in March, 1883 :

DIVISION I. CLASSICS.

(1.) *Latin.* Livy, XXI., XXII.
Terence, Phormio.
Translation of an easy passage into Latin.

(2.) *Greek.* Thucydides, I.
Euripides, Hippolytus.
Translation of an easy passage into Greek.

DIVISION II. MATHEMATICS.

(1.) *Geometry.* The substance of Euclid, Books III., IV., and VI., with exercises. (Any purely geometrical proof will be accepted.)

(2.) *Arithmetic.* The higher rules.

(3.) *Algebra*, as far as the proof of the Binomial Theorem for a positive integral exponent.

(4.) *Plane Trigonometry*, as far as the solution of triangles, with the nature and use of logarithms.

DIVISION III. ENGLISH LANGUAGE AND LITERATURE.

(1.) *Earle's* Philology of the English Tongue, cc, I. to IX., inclusive.

(2.) History of English Literature to the Accession of Queen Elizabeth.

(3.) *Shakspeare.* Coriolanus.
Gray's Elegy.

(4.) An English essay on a subject to be prescribed.

DIVISION IV. MODERN LANGUAGES.

(1.) French, or

(2.) German.

Passages will be set for translation and re-translation, and also questions on the Grammar.

*** A *vive voce* examination will be held in each subject, should the examiners think it desirable. The marks allowed for Divisions I. and II. will be twice as many as those allowed for Divisions III. and IV.

THE SOUTH AUSTRALIAN SCHOLARSHIP.

The Department of Education offers annually for competition a Scholarship of the value of Two Hundred Pounds per annum and tenable for four years, which is called the *South Australian Scholarship*, and will be awarded on the recommendation of the Council of the University. Candidates must be under twenty-one years of age on the 31st of December in the year in which the examination is held, and must have been resident in the Province at least five years immediately preceding the examination. The successful candidate must, as soon as possible after the examination, become a student at some European University, to be approved by the Department of Education, and payment of the Scholarship will not be made unless the holder conducts himself or herself to the satisfaction of the authorities of such University, and passes such examinations as may be decided by the Minister Controlling Education.

The following awards have been made to this Scholarship:

1879. Beare, Thomas Hudson.
1880. Robin, Percy Ansell.

Subjoined are the subjects of the examination to be held in December, 1882, and the rules relating to it:

Classics, with History and English Composition.
Mathematics.
Physics.
Natural Science.

The range of questions to be set in Classics, Mathematics, Physics, and Natural Science, will be defined by the Schedules of the corresponding parts of the three examinations for the Degree of B.A., as published in the University Calendar.

All candidates will be expected to show a knowledge of Classics and Mathematics up to the standard of the First examination for the Degree of B.A.

The Examiners will award the Scholarship by preference to a candidate who shall show special excellence either in

(a). Classics, with History and English Composition; or in
(b). Mathematics and Physics; or in
(c). Physics, Chemistry, and Natural Science.

If in the opinion of the Examiners no candidate is of sufficient merit, the Scholarship will not be awarded.

Each candidate must send to the Registrar of the University, on or before 1st November, 1882, a certificate signed by the Minister Controlling Education that the candidate is entitled to compete for the Scholarship in the December following.

ANGAS ENGINEERING SCHOLARSHIP.

J. H. Angas, Esquire, 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."

The following are the conditions upon which the Scholarship has been founded.

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

2. It shall be competed for triennially; but if on any competition the Examiners shall not consider any candidate worthy to receive the scholarship, it shall for that year lapse, but shall be competed for during the following year.

3. The Scholarship shall be held conditionally on good behaviour and continuous progress in engineering studies to the satisfaction of the Council.

4. The award shall be determined by a special examination in Mathematics, Natural Science, Mechanics, and Drawing, and such other subjects as the Council of the University shall from time to time direct, and the examination shall be conducted by Examiners appointed by the Council.

5. Each Candidate for the Scholarship must be under twenty-eight years of age at the commencement of the examination, and must have resided in South Australia for at least five years.

6. Each Candidate must also have graduated in Arts or Engineering at the University of Adelaide, and have passed, to the satisfaction of the Council of the University, through such courses of special studies and practical training for the purpose of qualifying him to be a Civil Engineer as shall from time to time be prescribed by the Statutes or Regulations of the University.

7. Within such time after gaining the Scholarship as the Council of the University shall in each case allow the Scholar must proceed to the United Kingdom, and there article himself to such Civil Engineer and for such time as the Council shall approve, or enter himself as a student in such College or University there and prosecute such studies suitable to qualify him to be a Civil Engineer, as the Council shall approve, or enter himself as such student and prosecute such studies for part of the time during which he shall hold such Scholarship, and for the remainder of such time shall article himself to such Civil Engineer as aforesaid.

8. 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, he shall receive the further sum of £100 towards his travelling expenses.

The Statutes, of which a copy is subjoined, have been made by the University in reference to this Scholarship.

STATUTES.

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

2. Each Candidate must be under twenty-eight years of age at the commencement of the examination, and must have resided in South Australia for at least five years.

3. Candidates must have graduated in Arts at the University of Adelaide, and have passed to the satisfaction of the Council through courses of special study and practical training in the subjects hereinafter mentioned.

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. Candidates shall give at least three calendar months' notice, in the prescribed form, of their intention to compete, and shall with their notice forward to the Registrar an Examination Fee of £5 5s., together with evidence satisfactory to the Council of having fulfilled the conditions hereinbefore stated.

6. The examination shall be in the following subjects:

(1) *Mathematics.*
(2) *Mechanics.*
(3) *Physics.*
(4) *Geology.*
(5) *Chemistry.*
(6) *Mechanical and Engineering Drawing.*
(7) *Use of the Theodolite, Level, Sextant, and other engineering instruments.*
(8) *Engineering Surveying.*
(9) *Theory of the Steam Engine.*

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 Professorial Board, subject to the approval of

the Council, and shall be published in the University Calendar in each year.

7. 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 article himself to such Civil Engineer and for such time as the Council shall approve; *or* enter himself as a student in such College or University there, and prosecute such studies suitable to qualify him to be a Civil Engineer, as the Council shall approve; *or* enter himself as such student and prosecute such studies for *part* of the time during which he shall hold such Scholarship, and for the *remainder* of such time shall article himself to such Civil Engineer as aforesaid. The successful candidate shall, within one month after the publication of the results of the examination, furnish, in writing, to the Registrar, for the approval of the Council, a statement of the mode in which he proposes to comply with these conditions.

8. 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, 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.

9. 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.

10. 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, he shall receive the further sum of £100 towards his travelling expenses.

11. 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.

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 March, 188 , 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 ..... 188 .

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 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 .....

Allowed on 13th January, 1880.

An examination for this Scholarship will be held in March, 1882, and should the Scholarship not be awarded an examination for this Scholarship will, if required, be held in March, 1883.

The following schedule has been drawn up in accordance with No. 6 of the foregoing Statutes:

1. MATHEMATICS.—The compulsory Mathematical subjects of the first Ordinary Examination for the B.A. Degree, together with

The solution of Triangles.

2. MECHANICS.—The applied Mathematics of the second year of the B.A. course.

Questions will also be set in the higher Mathematical subjects of the Second and Third Ordinary Examinations, more especially in Applied Mathematics; but a knowledge of these will not be regarded as indispensable.

3. PHYSICS.—A general outline of Physics, such as is required in the First Examination of the B.A. course; with the following portions of the advanced course in Physics:

The properties of matter.

The theory of heat, with special reference to heat as a motive power.

The theory of optical instruments.

4. GEOLOGY.

(1) As prescribed in the Third year's course in Arts.

(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.

5. CHEMISTRY.—As prescribed in the First and Second year's courses.

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 SOUTH AUSTRALIAN COMMERCIAL TRAVELLERS' ASSOCIATION (INCORPORATED) SCHOLARSHIP.

This Scholarship, which is tenable only by children of members of the Association, has been established by the deed of which a copy is subjoined :

Articles of Agreement made this 26th day of September, 1879, between the University of Adelaide, hereinafter called "The said University" of the one part, and the "South Australian Commercial Travellers' Association," incorporated, hereinafter called "The said Association" of the other part, witnesseth as follows :

1. The said Association shall pay to the said University the sum of £150 in cash.

2. In consideration of such payment the said University shall provide a Scholarship, tenable for the period hereinafter provided, the holder whereof shall have the advantages hereinafter specified.

3. 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.

4. 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 B.A. Degree ; 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 B.A. Degree while holding such Scholarship shall be entitled to have his matriculation fee returned to him.

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 said University.

6. 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.

7. No such scholar, who shall be a daughter of a member of the said Association, shall be entitled to claim or to receive any Degree, unless power to confer Degrees on women shall hereafter be granted to the said University by Letters Patent under the sign manual of a Sovereign of England.

JOHN HOWARD CLARK SCHOLARSHIPS.

Statutes.

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.

Allowed: 31st December, 1880.

The Council have prescribed the following subjects for the examination to be held, if required, in April, 1882:

The Sonnets of Milton.

Shakespeare's "As You Like It."

The Prologue to the Canterbury Tales.

The Council have prescribed the following subjects for the examination to be held, if required, in April, 1883:

Milton's L'Allegro and Il Penseroso.

Shakespeare's Hamlet.

The Prologue to the Canterbury Tales.

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 10th February and 1st 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. Those 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 1882, and will commence on 12th September.

DEGREES CONFERRED BY THE UNIVERSITY OF ADELAIDE DURING THE YEAR 1881.

B. A.

Donaldson, Arthur.

Ad eundem gradum:

M.A.

D'Arenberg, Frederick Augustus.

M.B.

Flood, Wellesley Pole.
Mitchell, James Thomas.

B.A.

Flood, Wellesley Pole.

APPENDIX.

CONTENTS:

UNIVERSITY SCHOLARSHIPS EXAMINATION,

MARCH, 1881.

GREEK.

PROFESSOR KELLY.

I. Translate—

ΑΓ. ἦ γὰρ τάδ' ὀκνῶν κεῖθεν ἦσθ' ἀπόπτολις;
ΟΙ. πατρός τε χρήζων μὴ φονεὺς εἶναι, γέρον.
ΑΓ. τί δῆτ' ἐγὼ οὐχὶ τοῦδε τοῦ φόβου σ', ἄναξ,
ἐπείπερ εὔνους ἦλθον, ἐξελυσάμην;
ΟΙ. καὶ μὴν χάριν γ' ἂν ἀξίαν λάβοις ἐμοῦ.
ΑΓ. καὶ μὴν μάλιστα τοῦτ' ἀφικόμην, ὅπως
σοῦ πρὸς δόμους ἐλθόντος εὖ πράξαιμί τι.
ΟΙ. ἀλλ' οὔποτ' εἶμι τοῖς φυτεύσασίν γ' ὁμοῦ.
ΑΓ. ὦ παῖ, καλῶς εἶ δῆλος οὐκ εἰδὼς τί δρᾷς.
ΟΙ. πῶς, ὦ γεραιέ; πρὸς θεῶν δίδασκέ με.
ΑΓ. εἰ τῶνδε φεύγεις οὕνεκ' εἰς οἴκους μολεῖν.
ΟΙ. ταρβῶ γε μή μοι Φοῖβος ἐξέλθῃ σαφής.
ΑΓ. ἦ μὴ μίασμα τῶν φυτεισάντων λάβῃς;
ΟΙ. τοῦτ' αὐτό, πρέσβυ, τοῦτό μ' εἰσαεὶ φοβεῖ.

Also,

ΟΙ. καὶ σοί γ' ἐπισκήπτω τε καὶ προτρέψομαι,
τῆς μὲν κατ' οἴκους αὐτὸς ὃν θέλεις τάφον
θοῦ· καὶ γὰρ ὀρθῶς τῶν γε σῶν τελεῖς ὕπερ·
ἐμοῦ δὲ μήποτ' ἀξιωθήτω τόδε
πατρῷον ἄστυ ζῶντος οἰκητοῦ τυχεῖν,
ἀλλ' ἔα με ναίειν ὄρεσιν, ἔνθα κλήζεται
οὐμὸς Κιθαιρὼν οὗτος, ὃν μήτηρ τέ μοι
πατήρ τ' ἐθέσθην ζῶντε κύριον τάφον,
ἵν' ἐξ ἐκείνων, οἵ μ' ἀπωλλύτην, θάνω.
καίτοι τοσοῦτόν γ' οἶδα, μήτε μ' ἂν νόσον
μήτ' ἄλλο πέρσαι μηδέν· οὐ γὰρ ἄν ποτε
θνήσκων ἐσώθην, μὴ 'πί τῳ δεινῷ κακῷ.
ἀλλ' ἡ μὲν ἡμῶν μοῖρ', ὁποιπερ εἶσ', ἴτω·
παίδων δὲ τῶν μὲν ἀρσένων μή μοι, Κρέον,
προσθῇ μέριμναν· ἄνδρες εἰσὶν, ὥστε μὴ
σπάνιν ποτὲ σχεῖν, ἔνθ' ἂν ὦσι, τοῦ βίου·

II. Καλλίστη δ' ἀναγνώρισις ὅταν ἅμα περιπέτειαι γίνωνται, οἷον ἔχει ἡ ἐν τῷ Οἰδίποδι.—*Aristotle.* Comment on this.

III. What other Greek Dramas were written on the same subject as Œdipus Rex? What do you understand by Irony? Give examples of it from Greek Literature.

IV. Translate and explain—

κεἰ μὲν φοβεῖται, τοὐπίκλημ' ὑπεξελὼν
αὐτὸς καθ' αὑτοῦ· πείσεται γὰρ ἄλλο μὲν
ἀστεργὲς οὐδέν, γῆς δ' ἄπεισιν ἀβλαβής.

ὥστ' οὐ Κρέοντος προστάτου γεγράψομαι.

ἀλλ' οὔποτ' ἔγωγ' ἄν, πρὶν ἴδοιμ' ὀρθὸν ἔπος μεμφομένων
ἂν καταφαίην.

γνώμῃ δ' ἀδήλῳ μή με χωρὶς αἰτιῶ.

νῦν πᾶσι χαίρω.

V. Translate—

ἡ μὲν οὖν τότε συγχωρηθεῖσα εἰρήνη διὰ ταῦτ', οὐ δι' ἐμὲ, ὡς οὗτος διέβαλλεν, ἐπράχθη· τὰ δὲ τούτων ἀδικήματα καὶ δωροδοκήματα ἐν αὐτῇ τῶν νυνὶ παρόντων πραγμάτων, ἄν τις ἐξετάζῃ δικαίως, αἴτια εὑρήσει· καὶ ταυτὶ πάνθ' ὑπὲρ τῆς ἀληθείας ἀκριβολογοῦμαι καὶ διεξέρχομαι. εἰ γὰρ εἶναί τι δοκοίη τὰ μάλιστα ἐν τούτοις ἀδίκημα, οὐδέν ἐστι δήπου πρὸς ἐμὲ, ἀλλ' ὁ μὲν πρῶτος εἰπὼν καὶ μνησθεὶς ὑπὲρ τῆς εἰρήνης Ἀριστόδημος ἦν ὁ ὑποκριτὴς, ὁ δ' ἐκδεξάμενος καὶ γράψας καὶ ἑαυτὸν μετὰ τούτου μισθώσας ἐπὶ ταῦτα Φιλοκράτης ὁ Ἀγνούσιος, ὁ σὸς, Αἰσχίνη, κοινωνὸς, οὐχ ὁ ἐμὸς, οὐδ' ἂν σὺ διαρραγῇς ψευδόμενος, οἱ δὲ συνειπόντες ὅτου δήποτε ἕνεκα (ἐῶ γὰρ τοῦτό γ' ἐν τῷ παρόντι) Εὔβουλος καὶ Κηφισοφῶν· ἐγὼ δ' οὐδὲν οὐδαμοῦ. ἀλλ' ὅμως, τούτων τοιούτων ὄντων καὶ ἐπ' αὐτῆς τῆς ἀληθείας οὕτω δεικνυμένων, εἰς τοῦθ' ἥκεν ἀναιδείας ὥστ' ἐτόλμα λέγειν ὡς ἄρα ἐγὼ πρὸς τῷ τῆς εἰρήνης αἴτιος γεγενῆσθαι καὶ κεκωλυκὼς εἴην τὴν πόλιν μετὰ κοινοῦ συνεδρίου τῶν Ἑλλήνων αὐτὴν ποιήσασθαι. εἶτ' ὦ—τί ἂν εἰπών σέ τις ὀρθῶς προσείποι; ἔστιν ὅπου σὺ παρὼν τηλικαύτην πρᾶξιν καὶ συμμαχίαν, ἡλίκην νυνὶ διεξῇεις, ὁρῶν ἀφαιρούμενόν με τῆς πόλεως ἠγανάκτησας, ἢ παρελθὼν ταῦτα ἃ νῦν κατηγορεῖς ἐδίδαξας καὶ διεξῆλθες; καὶ μὴν εἰ τὸ κωλῦσαι τὴν τῶν Ἑλλήνων κοινωνίαν ἐπεπράκειν ἐγὼ Φιλίππῳ, σοὶ τὸ μὴ σιγῆσαι λοιπὸν ἦν, ἀλλὰ βοᾶν καὶ διαμαρτύρεσθαι καὶ δηλοῦν τουτοισί.

Also,

Ἃ μὲν διώκει τοῦ ψηφίσματος, ὦ ἄνδρες Ἀθηναῖοι, ταῦτ' ἐστιν. ἐγὼ δ' ἀπ' αὐτῶν τούτων πρῶτον οἶμαι δῆλον ὑμῖν ποιήσειν ὅτι πάντα δικαίως ἀπολογήσομαι· τὴν γάρ αὐτὴν τούτῳ ποιησάμενος τῶν γεγραμμένων τάξιν περὶ πάντων ἐρῶ καθ' ἕκαστον ἐφεξῆς καὶ οὐδὲν ἑκὼν παραλείψω. τοῦ μὲν οὖν γράψαι πράττοντα καὶ λέγοντα τὰ βέλτιστά με τῷ δήμῳ διατελεῖν καί πρόθυμον εἶναι ποιεῖν ὅ τι ἂν δύνωμαι ἀγαθὸν, καὶ ἐπαινεῖν ἐπὶ τούτοις, ἐν τοῖς πεπολιτευμένοις τὴν κρίσιν εἶναι νομίζω· ἀπὸ γὰρ τούτων ἐξεταζόμενων εὑρεθήσεται εἴτε ἀληθῆ περὶ ἐμοῦ γέγραφε Κτησιφῶν ταῦτα καὶ προσήκοντα εἴτε καὶ ψευδῆ· τὸ δὲ μὴ προσγράψαντα "ἐπειδὰν τὰς εὐθύνας δῷ" στεφανοῦν, καὶ ἀνειπεῖν ἐν τῷ θεάτρῳ τὸν στέφανον κελεῦσαι, κοινωνεῖν μὲν ἡγοῦμαι καὶ τοῦτο τοῖς πεπολιτευμένοις, εἴτε ἄξιος εἰμί τοῦ στεφάνου καὶ τῆς ἀναρρήσεως τῆς ἐν τούτοις εἴτε καὶ μὴ, ἔτι μέντοι καὶ τοὺς νόμους δεικτέον εἶναί μοι δοκεῖ, καθ' οὓς ταῦτα γράφειν ἐξῆν τούτῳ. οὕτωσὶ μὲν, ὦ ἄνδρες Ἀθηναῖοι, δικαίως καὶ ἁπλῶς τὴν ἀπολογίαν ἔγνωκα ποιεῖσθαι, βαδιοῦμαι δ' ἐπ' αὐτὰ ἃ πέπρακταί μοι. καί με μηδεὶς ὑπολάβῃ ἀπαρτᾶν τὸν λόγον τῆς γραφῆς, ἐὰν εἰς Ἑλληνικὰς πράξεις καὶ λόγους ἐμπέσω· ὁ γὰρ διώκων τοῦ ψηφίσματος τὸ λέγειν καὶ πράττειν τὰ ἄριστά με καὶ γεγραμμένος ταῦτα ὡς οὐκ ἀληθῆ, οὗτός ἐστιν ὁ τοὺς περὶ ἁπάντων τῶν ἐμοὶ πεπολιτευμένων λόγους οἰκείους καὶ ἀναγκαίους τῇ γραφῇ πεποιηκώς.

VI. What were the charges brought by Æschines to which this speech is an answer?

VII. Translate into Greek Prose—

Romulus was a just King, and gentle to his people; if any were guilty of crimes he did not put them to death, but made them pay a fine of sheep or of oxen. In his wars he was very successful, and enriched his people with the spoils of their enemies.

Now, had the prosecutor confined his accusations to the terms of the indictment, I should have proceeded at once to the defence of the matter contained in the Bill. But seeing that he has lavished quite as much of his discourse on the discussion of other points, most of them lying statements about myself, I find it necessary, in justice to myself, to say a few words on these subjects first.

LATIN.

PROFESSOR KELLY.

Quo me, Bacche, rapis tui
Plenum? quae nemora aut quos agor in specus
Velox mente nova? quibus
Antris egregii Caesaris audiar

Aeternum meditans decus
Stellis inserere et consilio Jovis?
Dicam insigne recens adhuc
Indictum ore alio. Non secus in jugis

Exsomnis stupet Evias
Hebrum prospiciens et nive candidam
Thracen ac pede barbaro
Lustratam Rhodopen, ut mihi devio

Ripas et vacuum nemus
Mirari libet. O Naïadum potens
Baccharumque valentium
Proceras manibus vertere fraxinos,

Nil parvum aut humili modo,
Nil mortale loquar. Dulce periculum est,
O Lenaee, sequi deum
Cingentem viridi tempora pampino.

Also—

Quae cura patrum quaeve Quiritium
Plenis honorum muneribus tuas,
Auguste, virtutes in aevum
Per titulos memoresque fastos

Aeternet, O, qua sol habitabiles
Illustrat oras, maxime principum?
Quem legis expertes Latinae
Vindelici didicere nuper,

Quid Marte posses. Milite nam tuo
Drusus Genaunos, implacidum genus
Breunosque veloces et arces
Alpibus impositas tremendis

Dejecit acer plus vice simplici ;
Major Neronum mox grave proelium
Commisit immanesque Rhaetos
Auspiciis pepulit secundis,

Spectandus in certamine Martio,
Devota morti pectora liberae
Quantis fatigaret ruinis ;
Indomitas prope qualis undas

Exercet Auster, Pleïadum choro
Scindente nubes, impiger hostium
Vexare turmas et frementem
Mittere equum medios per ignes.

Translate and explain—

Quem Venus arbitrum
Dicet bibendi ?

Dulce *pellitis ovibus* Galaesi
Flumen et *regnata* petam Laconi
Rura Phalantho.

Segetis certa fides meae
Fulgentem imperio fertilis Africae
Fallit sorte beatior.

Cuncta manus avidas fugient heredis amico
Quae dederis animo.

Explain the scansion of any three of the metres used by Horace in his Odes.

Translate—

Metellus in iisdem castris quatriduo moratus saucios cum cura reficit, meritos in proeliis more militiae donat, universos in contione laudat atque agit gratias ; hortatur ad cetera quae levia sunt parem animum gerant ; pro victoria satis jam pugnatum, reliquos labores pro praeda fore. Tamen interim transfugas et alios opportunos, Jugurtha ubi gentium aut quid agitaret, cum paucisne esset an exercitum haberet, ut sese victus gereret, exploratum misit. At ille sese in loca saltuosa et natura munita receperat, ibique cogebat exercitum numero hominum ampliorem, sed hebetem infirmumque, agri ac pecoris magis quam belli cultorem, Id ea gratia eveniebat, quod praeter regios equites nemo omnium Numidarum ex fuga

regem sequitur ; quo cujusque animus fert, eo discedunt, neque id flagitium militiae ducitur ; ita se mores habent, Igitur Metellus ubi videt etiamtum regis animum ferocem esse, bellum renovari, quod nisi ex illius lubidine geri non posset, praeterea iniquum certamen sibi cum hostibus, minore detrimento illos vinci quam suos vincere, statuit non proeliis neque in acie, sed alio more bellum gerundum.

Also—

Metellus, postquam de rebus Vagae actis comperit, paulisper moestus e conspectu abit ; deinde, ubi ira et aegritudo permixta sunt, cum maxuma cura ultum ire injurias festinat. Legionem cum qua hiemabat, et quam plurumos potest Numidas equites pariter cum occasu solis expeditos educit et postero die circiter horam tertiam pergit in quandam planitiem locis paulo superioribus circumventam. Ibi milites fessos itineris magnitudine et jam abnuentis omnia docet oppidum Vagam non amplius mille passuum abesse ; decere illos reliquum laborem aequo animo pati, dum pro civibus suis viris fortissumis atque miserrumis poenas caperent ; praeterea praedam benigne ostentat. Sic animis eorum arrectis equites in primo late, pedites quam artissume ire et signa occultare jubet.

Vagenses ubi animum advortere ad se vorsum exercitum pergere, primo, ut erat res, Metellum esse rati portas clausere ; deinde, ubi neque agros vastari, et eos qui primi aderant Numidas equites vident, rursum Jugurtham arbitrati cum magno gaudio obvii procedunt. Equites peditesque repente signo dato, alii volgum effusum oppido caedere, alii ad portas festinare, pars turris capere, ira atque praedae spes amplius quam lassitudo posse. Ita Vagenses biduum modo ex perfidia laetati ; civitas magna et opulens cuncta poenae aut praedae fuit. Turpilius, quem praefectum oppidi unum ex omnibus profugisse supra ostendimus, jussus a Metello caussam dicere, postquam sese parum expurgat, condemnatus verberatusque capite poenas solvit ; nam is civis ex Latio erat.

Translate into Latin prose—

On the 8th of November Cicero addressed the Senate in so impressive a speech that Catiline, who was present, thought it best to quit Rome on the ensuing night. The next day Cicero addressed the assembled people on the same subject, and the Senate then declared Catiline a public enemy, and ordered the Consuls to provide for the safety of the city, commanding at the same time that an army should be raised.

GERMAN.

A. Von Treuer, Esq., LL.B.

I. Read the following passage :—

War einſt ein Glockengießer
Zu Breslau in der Stadt,
Ein ehrenwerther Meiſter
Gewandt in Rath und That.
Er hatte ſchon gegoſſen
Viel' Glocken, gelb und weiß,
Für Kirchen und Kapellen
Zu Gottes Lob und Preis.
Und ſeine Glocken klangen
So voll, ſo hell, ſo rein;
Er goß auch Lieb und Glauben
Mit in die Form hinein.
Doch aller Glocken Krone,
Die er gegoſſen hat,
Das iſt die Sünderglocke
Zu Breslau in der Stadt.

II. Translate the same into English.

III. Translate into English :—

Schlaf ruhig, armes Kind! erwache nicht!
Die Mutter wiegt Dich ein im Todesthale.—
Wie innig mich die Sehnſucht jetzt ergreift,
Mit Dir hinab den dunkeln Weg zu wallen!
Ich fühl's, das matte Herz, es iſt gereift,
Als Frucht vom Baum des Lebens abzufallen.

IV. Translate into English :—

Laß mich weinen,
An Deinem Herzen heiße Thränen weinen,
Du einz'ger Freund. — Ich habe Niemand — Niemand —
Auf dieſer großen, weiten Erde Niemand.
So weit das Scepter meines Vaters reicht,
So weit die Schifffahrt unſre Flaggen ſendet,
Iſt keine Stelle — keine — keine, wo
Ich meiner Thränen mich entlaſten darf,
Als dieſe. —

V. Translate into English :—

Alle Könige
Europens huldigen dem ſpan'ſchen Namen.
Geh'n Sie Europens Königen voran!
Ein Federzug von dieſer Hand, und neu
Erſchaffen wird die Erde. — Geben Sie
Gedankenfreiheit! —

VI. Translate into German :—

France ! I love thee !
All earth shall never pluck thee from my heart !
My mistress France—my wedded wife,—sweet France,
Who shall proclaim divorce for thee and me !

VII. Translate into German :—

Thy *acts* are thy accusers, Cardinal !
In his hot youth, a soldier, urged to crime
Against the State, placed in your hands his life ;—
You did not strike the blow, but o'er his head,
Upon the gossamer thread of your caprice.
Hover'd the axe.

VIII. Parse the following lines :—

Schwinget leiſe, holde Töne,
Hin euch über Thal und Flur ;
Feiert ſanft die himmliſch ſchöne,
Heil'ge Stille der Natur !

ENGLISH LANGUAGE.

PROFESSOR DAVIDSON.

I. Explain the pictorial origin of alphabetic writing ; and describe the Runic characters.

II. What variations are observable in vowel sounds, especially *a* and *e*?

III. Give illustrations of changes which have occurred in the accentuation of words, and account for them.

IV. Illustrate in short sentences the use of Primary, Historical, and Secondary Interjections.

V. Give illustrations of the legitimate use of the Verb as a "Substantive" and as a "Preposition ;" of the Substantive as an "Adjective" and as an "Adverb ;" and of the Relative as a "Conjunction."

VI. Explain the distinction between *Presentive* and *Symbolic* words, and mention, with illustrations, the kinds which are capable of Inflection.

VII. There are Strong, Mixed, and Weak Verbs. Wherein does the peculiarity of each lie ? What sub-divisions of them may be made ?

VIII. Give illustrations of Saxon, French, Latin, and Greek forms of English Nouns; and show how the terminations "*ism*" and "*ist*" have come to be used with words of various origins.

IX. What place is assigned to Numerals in the Noun Group?

X. Write an essay on "The Art of Printing."

ENGLISH LITERATURE.

PROFESSOR DAVIDSON.

I. What was the general character of Anglo-Saxon literature? and what names are prominently connected with it?

II. Give some account of Caedmon and his works.

III. What place does Chaucer occupy in the history of our literature? and on what grounds is it assigned to him?

IV. Give a short sketch of the life and character of Spenser.

V. In his letter to Sir Walter Raleigh he unfolds his purpose in writing the "Faëry Queen." What was that purpose?

VI. Give an outline of the story and meaning of the First Book. Explain the structure of the Spenserian stanza.

VII. What advantage does he secure by using archaic words? Quote one or more passsages to illustrate this use.

VIII. Sketch the story of "Hamlet."

IX. In Act I., Sc. V., ll. 171, 172, he says:—

"I perchance hereafter shall think meet
"To put an antic disposition on."

Does this prove that his subsequent madness was not real but feigned? Give a reason for your answer.

X. Quote some passage which you admire.

XI. Explain the following words and phrases:—

"Caviare to the general."
"Miching mallecho."
"Mobled Queen."
"The chameleon's dish."
"'S blood."
"God's bodykins."
"Ecstasy."
"Beshrew."

MATHEMATICS I.

PROFESSOR LAMB.

I. £5,151 is invested in 5 per cent. stock at 101, the stock rising to 105 it is sold out, and the proceeds are invested in stock at 102 which gives $4\frac{3}{4}$ per cent. interest. Find the change in income.

II. I have a certain sum of money wherewith to buy a certain number of nuts, and I find that if I buy at the rate of 40 a penny I shall spend 5d. too much, if 50 a penny 10d. too little. How much have I to spend? [To be done by Arithmetic.]

III. Divide

(i.) $a(b-c)^3 + b(c-a)^3 + c(a-b)^3$ by $a^2-ab-ac+bc$;
(ii.) $(1-a^2)(1-b^2)(1-c^2)-(ab+c)(bc+a)(ca+b)$ by $1+abc$.

IV. Simplify

(i.) $\dfrac{x+y}{x^2+xy+y^2} + \dfrac{x-y}{x^2-xy+y^2}$

(ii.) $\dfrac{xy}{ab} + \dfrac{(x-a)(y-a)}{a(a-b)} + \dfrac{(x-b)(y-b)}{b(b-a)}$.

V. Extract the square root of

$$x^6 + \frac{1}{x^6} - 6\left(x^4 + \frac{1}{x^4}\right) + 15\left(x^2 + \frac{1}{x^2}\right) - 20.$$

VI. Solve the equations

(i.) $\dfrac{a}{x-a} - \dfrac{b}{x-b} = \dfrac{a-b}{x-c}$

(ii.) $(1+x)^4 = x^4 + 2x + 1$.

VII. I have a clock which gains 36 seconds in an hour, and a watch which loses 60 seconds in an hour. At true noon the time by the watch in 12.3, and by the clock 11.55. What is the true time when the clock and the watch agree? Also what will be the time by the watch when the time by the clock is 5 p.m.

VIII. Two vessels contain each a mixture of wine and water. In A the wine : water : : 1 : 3, in B : : 3 : 5, how much must be taken from each to make 5 gals. of wine and 9 of water?

IX. Prove the formula for the sum of an Arithmetical Progression.

Divide a line a mile long into 10 parts in the ratio of 1, 2, 3, &c.

MATHEMATICS. II.

PROFESSOR LAMB.

I. The angle at the centre of a circle is double the angle at the circumference standing on the same arc.

II. AOB, COD are two chords of a circle intersecting in O; prove that the rectangles AO,OB and CO,OD are equal.

Also state and prove the converse of this theorem.

III. In a given circle inscribe a triangle equiangular to a given triangle.

IV. Define *Similar Rectilinear Figures.*

Prove that triangles which are equiangular are also similar.

$ABCD$ and $PQRS$ are two quadrilaterals having the angles at B, C equal to the angles at Q, R, each to each, and the sides AB, BC, CD proportional to PQ, QR, RS respectively; prove that the two quadrilaterals are similar.

V. If four straight lines are in proportion the rectangle contained by the extremes is equal to that contained by the means.

ABC is a right-angled triangle, and from C the right angle a perpendicular CN is drawn to AB; prove that the rectangle AN,AB is equal to the square on AC.

VI. Define $\sin A$, $\cos A$, $\tan A$; and find their values (i) when $A = 60°$, (ii) when $A = 660°$.

VII. Prove that

$\cos(A + B) = \cos A \cos B - \sin A \sin B$, where A and B are positive angles such that $A + B$ is less than a right angle.

Hence show that under the same conditions $\tan A \tan B$ is less than unity.

VIII. Explain how you would find the height of a tower standing on a horizontal plane by means of observations made at two stations A, B combined with the measurement of the distance AB, (i) when A, B are, (ii) when they are not, in a line with the foot of the tower.

IX. Define the terms *Logarithm*, *Base*, *Characteristic*, *Mantissa*, and prove that

$$\log a + \log b = \log ab.$$

Prove that

$$7 \log \frac{16}{15} + 5 \log \frac{25}{24} + 3 \log \frac{81}{80} = \log 2.$$

SUPPLEMENTARY ORDINARY EXAMINATION

FIRST YEAR.

MARCH, 1881.

GREEK.—HOMER AND PLATO.

PROFESSOR KELLY.

I. Translate—

Οἵη δ' ἐκ νεφέων ἐρεβεννὴ φαίνεται ἀὴρ
Καύματος ἐξ ἀνέμοιο δυσαέος ὀρνυμένοιο,
Τοῖος Τυδείδῃ Διομήδεϊ χάλκεος Ἄρης
Φαίνεθ' ὁμοῦ νεφέεσσιν ἰὼν εἰς οὐρανὸν εὐρύν.
Καρπαλίμως δ' ἵκανε θεῶν ἕδος, αἰπὺν Ὄλυμπον,
Παρὰ δὲ Διῒ Κρονίωνι καθέζετο θυμὸν ἀχεύων,
Δεῖξεν δ' ἄμβροτον αἷμα καταρρέον ἐξ ὠτειλῆς,
Καί ῥ' ὀλοφυρόμενος ἔπεα πτερόεντα προσηύδα.
"Ζεῦ πάτερ, οὐ νεμεσίζῃ ὁρῶν τάδε καρτερὰ ἔργα;
Αἰεί τοι ῥίγιστα θεοὶ τετληότες εἰμὲν
Ἀλλήλων ἰότητι, χάριν δ' ἄνδρεσσι φέροντες.
Σοὶ πάντες μαχόμεσθα· σὺ γὰρ τέκες ἄφρονα κούρην,
Οὐλομένην, ἣ τ' αἰὲν ἀήσυλα ἔργα μέμηλεν.
Ἄλλοι μὲν γὰρ πάντες, ὅσοι θεοί εἰσ' ἐν Ὀλύμπῳ,
Σοί τ' ἐπιπείθονται καὶ δεδμήμεσθα ἕκαστος·
Ταύτην δ' οὔτ' ἔπεϊ προτιβάλλεαι οὔτε τι ἔργῳ,
Ἀλλ' ἀνιεῖς, ἐπεὶ αὐτὸς ἐγείναο παῖδ' ἀΐδηλον·
Ἥ νῦν Τυδέος υἱὸν ὑπερφίαλον Διομήδεα
Μαργαίνειν ἀνέηκεν ἐπ' ἀθανάτοισι θεοῖσιν.

Also,

Ὣς εἰπὼν ἀλόχοιο φίλης ἐν χερσὶν ἔθηκεν
Παῖδ' ἑόν· ἣ θ' ἄρα μιν κηώδεϊ δέξατο κόλπῳ
Δακρυόεν γελάσασα. Πόσις δ' ἐλέησε νοήσας,
Χειρί τέ μιν κατέρεξεν, ἔπος τ' ἔφατ', ἔκ τ' ὀνόμαζεν.
"Δαιμονίη, μή μοί τι λίην ἀκαχίζεο θυμῷ·
Οὐ γάρ τίς μ' ὑπὲρ αἶσαν ἀνὴρ Ἄϊδι προϊάψει·

Μοῖραν δ' οὔ τινά φημι πεφυγμένον ἔμμεναι ἀνδρῶν,
Οὐ κακὸν, οὐδὲ μὲν ἐσθλὸν, ἐπὴν τὰ πρῶτα γένηται.
Ἀλλ' εἰς οἶκον ἰοῦσα τὰ σ' αὐτῆς ἔργα κόμιζε,
Ἱστόν τ' ἠλακάτην τε, καὶ ἀμφιπόλοισι κέλευε
Ἔργον ἐποίχεσθαι. Πόλεμος δ' ἄνδρεσσι μελήσει
Πᾶσιν, ἐμοὶ δὲ μάλιστα, τοὶ Ἰλίῳ ἐγγεγάασιν."
Ὣς ἄρα φωνήσας κόρυθ' εἵλετο φαίδιμος Ἕκτωρ
Ἵππουριν· ἄλοχος δὲ φίλη οἰκόνδε βεβήκει
Ἐντροπαλιζομένη, θαλερὸν κατὰ δάκρυ χέουσα.
Αἶψα δ' ἔπειθ' ἵκανε δόμους εὐναιετάοντας
Ἕκτορος ἀνδροφόνοιο, κιχήσατο δ' ἔνδοθι πολλὰς
Ἀμφιπόλους, τῇσιν δὲ γόον πάσῃσιν ἐνῶρσεν.
Αἱ μὲν ἔτι ζωὸν γόον Ἕκτορα ᾧ ἐνὶ οἴκῳ·
Οὐ γάρ μιν ἔτ' ἔφαντο ὑπότροπον ἐκ πολέμοιο
Ἴξεσθαι, προφυγόντα μένος καί χεῖρας Ἀχαιῶν.

II. Translate—

Ἐγὼ οὖν δεινὰ ἂν εἴην εἰργασμένος, ὦ ἄνδρες Ἀθηναῖοι, εἰ, ὅτε μέν με οἱ ἄρχοντες ἔταττον, οὓς ὑμεῖς εἵλεσθε ἄρχειν μου, καὶ ἐν Ποτιδαίᾳ καὶ ἐν Ἀμφιπόλει καὶ ἐπὶ Δηλίῳ, τότε μὲν οὐ ἐκεῖνοι ἔταττον ἔμενον ὥσπερ καὶ ἄλλος τις καὶ ἐκινδύνευον ἀποθανεῖν, τοῦ δὲ θεοῦ τάττοντος, ὡς ἐγὼ ᾠήθην τε καὶ ὑπέλαβον, φιλοσοφοῦντά μέ δεῖν ζῆν καὶ ἐξετάζοντα ἐμαυτὸν καὶ τοὺς ἄλλους, ἐνταῦθα δὲ φοβηθεὶς ἢ θάνατον ἢ ἄλλο ὁτιοῦν πρᾶγμα λίποιμι τὴν τάξιν. δεινὸν μέντ' ἂν εἴη, καὶ ὡς ἀληθῶς τότ' ἄν με δικαίως εἰσάγοι τις εἰς δικαστήριον, ὅτι οὐ νομίζω θεοὺς εἶναι ἀπειθῶν τῇ μαντείᾳ καὶ δεδιὼς θάνατον καὶ οἰόμενος σοφὸς εἶναι οὐκ ὤν.

Also,

Τὸ δὲ δὴ μετὰ τοῦτο ἐπιθυμῶ ὑμῖν χρησμῳδῆσαι, ὦ καταψηφισάμενοί μου· καὶ γάρ εἰμι ἤδη ἐνταῦθα, ἐν ᾧ μάλιστ' ἄνθρωποι χρησμῳδοῦσιν, ὅταν μέλλωσιν ἀποθανεῖσθαι. φημὶ γάρ, ὦ ἄνδρες, οἳ ἐμὲ ἀπεκτόνατε, τιμωρίαν ὑμῖν ἥξειν εὐθὺς μετὰ τὸν ἐμὸν θάνατον πολὺ χαλεπωτέραν νὴ Δί' ἢ οἵαν ἐμὲ ἀπεκτόνατε· νῦν γὰρ τοῦτο εἰργάσασθε οἰόμενοι μὲν ἀπαλλάξεσθαι τοῦ διδόναι ἔλεγχον τοῦ βίου, τὸ δὲ ὑμῖν πολὺ ἐναντίον ἀποβήσεται, ὡς ἐγὼ φημί. πλείους ἔσονται ὑμᾶς οἱ ἐλέγχοντες, οὓς νῦν ἐγὼ κατεῖχον, ὑμεῖς δὲ οὐκ ᾐσθάνεσθε· καὶ χαλεπώτεροι ἔσονται ὅσῳ νεώτεροί εἰσι, καὶ ὑμεῖς μᾶλλον ἀγανακτήσετε.

III. Write notes on the following words and phrases in these passages :—

ἐπὴν τα πρῶτα γένηται, τὰ σ' αὐτῆς ἔργα,
ἐντροπαλιζομένη, καύματος ἕξ, σὺλομένην,
δεδμήμεσθα ἕκαστος, προτιβάλλεαι.

IV. Translate into Greek—

1. Had I possessed any money I would have given it to the slave who preserved me.
2. How much do you think that eagle's head would fetch if it were sold?
3. How many days and nights in a man's life do you think he spends more happily than those nights in which he sleeps so soundly as not even to have a dream?

LATIN.

PROFESSOR KELLY.

Translate—

Proxima Campano ponti quae villula, tectum
Praebuit, et parochi quae debent ligna salemque.
Hinc muli Capuae clitellas tempore ponunt.
Lusum it Maecenas, dormitum ego Virgiliusque;
Namque pila lippis inimicum et ludere crudis.
Hinc nos Cocceii recipit plenissima villa,
Quae super est Caudi camponas. Nunc mihi paucis
Sarmenti scurrae pugnam Messique Circirrhi,
Musa, velim memores, et quo patre natus uterque
Contulerit lites. Messi clarum genus Osci;
Sarmenti domina exstat: ab his majoribus orti
Ad pugnam venere. Prior Sarmentus: Equi te
Esse feri similem dico. Ridemus, et ipse
Messius, Accipio, caput et movet. O, tua cornu
Ni foret exsecto frons, inquit, quid faceres, cum
Sic mutilus minitaris? At illi foeda cicatrix
Setosam laevi frontem turpaverat oris.

Also—

O magnus posthac inimicis risus! Uterne
Ad casus dubios fidet sibi certius? Hic, qui
Pluribus assuerit mentem corpusque superbum,
An qui, contentus parvo metuensque futuri,
In pace ut sapiens aptarit idonea bello?
Quo magis his credas, puer hunc ego parvus Ofellam
Integris opibus novi non latius usum
Quam nunc accisis. Videas metato in agello
Cum pecore et gnatis fortem mercede colonum,
Non ego, narrantem, temere edi luce profesta

Quidquam praeter olus fumosae cum pede pernae.
Ac mihi seu longum post tempus venerat hospes,
Sive operum vacuo gratus conviva per imbrem
Vicinus, bene erat non piscibus urbe petitis,
Sed pullo atque haedo ; tum pensilis uva secundas
Et nux ornabat mensas cum duplice ficu.

Also—

Age, sit ita factum ; quae causa, cur Romam properaret ? cur in noctem se conjiceret ? quid afferebat festinationis quod heres erat ? Primum erat nihil, cur properato opus esset ; deinde, si quid esset, quid tandem erat, quod ea nocte consequi posset, amitteret autem, si postridie mane Romam venisset ? Atque ut illi nocturnus ad urbem adventus vitandus potius, quam expetendus fuit ; sic Miloni, quum insidiator esset, si illum ad urbem noctu accessurum sciebat, subsidendum atque exspectandum fuit. Noctu invidioso et pleno latronum in loco occidisset : nemo ei neganti non credidisset, quem esse omnes salvum, etiam confitentem, volunt. Sustinuisset hoc crimen primum ipse ille latronum ocultator et receptator locus, dum neque muta solitudo indicasset, neque caeca nox ostendisset Milonem ; deinde ibi multi ab illo violati, spoliati, bonis expulsi, multi etiam haec timentes in suspicionem caderent ; tota denique rea citaretur Etruria. Atque illo die certe Aricia rediens devertit Clodius ad se in Albanum. Quod ut sciret Milo illum Ariciae fuisse, suspicari tamen debuit eum, etiam si Romam illo die reverti vellet, ad villam suam, quae viam tangeret, deversurum. Cur neque ante occurrit, ne ille in villa resideret, nec in eo loco subsedit, quo ille noctu venturus esset ?

Also—

Dura mihi, mediusfidius, jam Fortuna populi Romani et crudelis videbatur, quae tot annos illum in hanc rem publicam insultare videret et pateretur. Polluerat stupro sanctissimas religiones, senatus gravissima decreta perfregerat, pecunia se a judicibus palam redemerat, vexarat in tribunatu senatum, omnium ordinum consensu pro salute rei publicae gesta rescinderat, me patria expulerat, bona diripuerat, domum incenderat, liberos, conjugem meam vexarat, Cn. Pompeio nefarium bellum indixerat, magistratuum privatorumque caedes effecerat, domum mei fratris incenderat, vastarat Etruriam, multos sedibus ac fortunis ejecerat, instabat, urgebat, capere ejus amentiam civitas, Italia, provinciae, regna non poterant, incidebantur jam domi leges, quae nos nostris servis addicerent,

nihil erat cujusquam, quod quidem ille adamasset, quod non hoc anno suum fore putaret. Obstabat ejus cogitationibus nemo praeter Milonem. Ipsum illum, qui poterat obstare, novo reditu in gratiam quasi devinctum arbitrabatur ; Caesaris potentiam suam esse dicebat; bonorum animos etiam in meo casu contempserat; Milo unus urgebat.

Explain the following :—

(α) Solventur risu tabulae.

(β) Si de quincunce remota est uncia, quid superest? Poteras dixisse, Triens.

(γ) Ibant octonis referentes Idibus aera.

Translate into Latin prose—

I did indeed get that law against bribery passed, but without abrogating that which I long ago laid down for myself about warding off the danger of my fellow-citizens.

But you say you follow interest, not duty; your friendship, therefore, will last as long as you derive any advantage from it.

NATURAL PHILOSOPHY. I.

PROFESSOR LAMB.

I. State the law of Action and Reaction, and show that it is an extension of the First Law of Motion.

Give practical illustrations of the truth of the law.

II. State the "Parallelogram of Forces," and describe an experimental verification.

Two equal forces act in opposite directions at right angles to a given straight line AB at the points A, B of it, and a third equal force acts along AB. Find, by a diagram, the magnitude and the line of action of the resultant.

III. Describe Attwood's machine, and explain the use of it to verify the laws of motion.

If the weights on the two sides of the pulley be in the proportion of 5 to 4, find the space described in the latter half of the first second of the motion.

IV. Explain, and carefully distinguish between, the two senses in which the word "weight" is popularly used.

V. Explain what is meant by the "pressure at a point" in a fluid, and point out the assumption involved in the phrase.

Calculate the pressure at the depth of 5 centimeters in mercury contained in an open vessel, the reading of the barometer being 760 mm. [Density of mercury = 13.6.]

VI. State how you would find the specific gravity of a given fluid (1) directly, and (2) by a method based on the principle of Archimedes.

VII. Define the *Linear Expansion* and the *Cubical Expansion* of a substance, and prove that the latter is three times the former.

The linear expansion of glass is .00001 and the cubical expansion of mercury is .00018 ; find the increase in the height of a column of mercury 10 cm. long contained in a cylindrical glass vessel, when the temperature rises 20°.

NATURAL PHILOSOPHY. II.

PROFESSOR LAMB.

I. Define the Conductivity of a substance for Heat.

Describe an experiment in illustration of the different conducting powers of different metals.

II. On what does the pitch of a musical note depend? Describe experiments in support of your statement.

III. Explain carefully how the pitch of an open organ-pipe depends on the velocity of sound and on the length of the pipe.

How and why is the pitch affected by a change of temperature?

IV. Explain how it is that two similar stopped organ pipes placed side by side on the same wind-chest and blown simultaneously produce hardly any sound.

V. State the Laws of Reflection and Refraction of Light.

On the opposite walls of a room 20 feet wide are two large mirrors. Find the positions of the three nearest images of himself which a man looking towards one of these mirrors from a distance of five feet will see.

VI. Explain the formation of a real image by a curved mirror. Give a careful diagram.

VII. Explain, and illustrate by a careful diagram, the action of an ordinary magnifying glass.

SECOND YEAR.

GREEK 1.
HOMER AND DEMOSTHENES.

PROFESSOR KELLY.

I. Translate—

Ἀτρείδην δ' ἄχος εἷλε, βοὴν ἀγαθὸν Μενέλαον·
βῆ δ' ἐπαπειλήσας Ἑλένῳ ἥρωϊ ἄνακτι,
ὀξὺ δόρυ κραδάων· ὁ δε τόξου πῆχυν ἀνέλκεν.
τὼ δ' ἄρ' ὁμαρτήτην, ὁ μὲν ἔγχεϊ ὀξυόεντι
ἵετ' ἀκοντίσαι, ὁ δ' ἀπὸ νευρῆφιν ὄϊστῷ·
Πριαμίδης μὲν ἔπειτα κατὰ στῆθος βάλεν ἱῷ
θώρηκος γύαλον, ἀπὸ δ' ἔπτατο πικρὸς ὀϊστός.
ὡς δ' ὅτ' ἀπὸ πλατέος πτυόφιν μεγάλην κατ' ἀλωὴν
θρώσκωσιν κύαμοι μελανόχροες, ἢ ἐρέβινθοι,
πνοιῇ ὑπὸ λιγυρῇ καὶ λικμητῆρος ἐρωῇ·
ὣς ἀπὸ θώρηκος Μενελάου κυδαλίμοιο
πολλὸν ἀποπλαγχθεὶς, ἑκὰς ἔπτατο πικρὸς ὀϊστός.
Ἀτρείδης δ' ἄρα χεῖρα, βοὴν ἀγαθὸς Μενέλαος,
τὴν βάλεν, ᾗ ῥ' ἔχε τόξον ἐΰξοον· ἐν δ' ἄρα τόξῳ
ἀντικρὺ διὰ χειρὸς ἐλήλατο χάλκεον ἔγχος.
ἂψ δ' ἑτάρων εἰς ἔθνος ἐχάζετο, Κῆρ' ἀλεείνων,
χεῖρα παρακρεμάσας· τὸ δ' ἐφέλκετο μείλινον ἔγχος.
καὶ τὸ μὲν ἐκ χειρὸς ἔρυσεν μεγάθυμος Ἀγήνωρ,
αὐτὴν δὲ ξυνέδησεν ἐϋστρόφῳ οἰὸς ἀώτῳ,
σφενδόνῃ, ἣν ἄρα οἱ θεράπων ἔχε ποιμένι λαῶν.

Write notes on—πῆχυν, ὀξυόεντι, νευρῆφιν, γύαλον, ἐρωῇ.

Also,

Τρῶες δ' ὡς ἐπύθοντο Διὸς κτύπον αἰγιόχοιο,
μᾶλλον ἐπ' Ἀργείοισι θόρον, μνήσαντο δὲ χάρμης.
οἱ δ', ὥστε μέγα κῦμα θαλάσσης εὐρυπόροιο
νηὸς ὑπὲρ τοίχων καταβήσεται, ὁππότ' ἐπείγῃ
ἲς ἀνέμου· ἡ γάρ τε μάλιστά γε κύματ' ὀφέλλει·
ὣς Τρῶες μεγάλῃ ἰαχῇ κατὰ τεῖχος ἔβαινον,
ἵππους δ' εἰσελάσαντες, ἐπὶ πρύμνῃσι μάχοντο
ἔγχεσιν ἀμφιγύοις αὐτοσχέδον· οἱ μὲν ἀφ' ἵππων,
οἱ δ' ἀπὸ νηῶν ὕψι μελαινάων ἐπιβάντες,
μακροῖσι ξυστοῖσι, τά ῥά σφ' ἐπὶ νηυσὶν ἔκειτο
ναύμαχα, κολλήεντα, κατὰ στόμα εἰμένα χαλκῷ.

Πάτροκλος δ', εἴως μὲν Ἀχαιοί τε Τρῶές τε
τείχεος ἀμφεμάχοντο θοάων ἔκτοθι νηῶν,
τόφρ' ὅγ' ἐνὶ κλισίῃ ἀγαπήνορος Εὐρυπύλοιο
ἧστό τε, καὶ τὸν ἔτερπε λόγοις, ἐπὶ δ' ἕλκεϊ λυγρῷ
φάρμακ' ἀκήματ' ἔπασσε μελαινάων ὀδυνάων.

Write a note on *ἀμφιγύοις*.

F. Halcomb, Esq., M.A.

I. Translate—

Ἔτι τοίνυν τοιοῦτό τι μέλλειν αὐτὸν ἀκούω λέγειν, ὅτι θαυμάζει τί δήποτε Δημοσθένης μὲν αὐτοῦ κατηγορεῖ, Φωκέων δ' οὐδείς. ὡς δὴ τοῦτ' ἔχει, βέλτιον προακοῦσαι παρ' ἐμοῦ. Φωκέων τῶν ἐκπεπτωκότων οἱ μὲν οἶμαι βέλτιστοι καὶ μετριώτατοι φυγάδες γεγενημένοι καὶ τοιαῦτα πεπονθότες ἡσυχίαν ἄγουσι, καὶ οὐδεὶς ἂν αὐτῶν ἐθελήσειεν ὑπὲρ τῶν κοινῶν συμφορῶν ἰδίαν ἔχθραν ἀνελέσθαι· οἱ δ' ὁτιοῦν ἂν ἀργυρίου ποιήσαντες τὸν δώσοντα οὐκ ἔχουσιν αὐτοῖς. οὐ γὰρ ἔγωγ' ἂν ἔδωκα οὐδενὶ οὐδέν, ὥστε μοι παραστάντας ἐνταυθοῖ βοᾶν οἷα πεπόνθασιν· ἡ γὰρ ἀλήθεια καὶ τὰ πεπραγμένα αὐτὰ βοᾷ. ἀλλὰ μὴν ὅ γε δῆμος ὁ τῶν Φωκέων οὕτω κακῶς καὶ ἐλεεινῶς διάκειται ὥστε μὴ περὶ τοῦ κατηγορεῖν ἑκάστῳ τὰς Ἀθήνησιν εὐθύνας εἶναι τὸν λόγον, ἀλλὰ δουλεύειν καὶ τεθνάναι τῷ φόβῳ Θηβαίους καὶ τοὺς Φιλίππου ξένους, οὓς ἀναγκάζονται τρέφειν, διῳκισμένοι κατὰ κώμας καὶ παρῃρημένοι τὰ ὅπλα.

Illustrate from this passage the effectiveness of the Greek particles :

Also note—

(*α*) The force of inflexion in *ἀργύριον*, *ἐνταυθοῖ*, *Ἀθήνησι*, *κακῶς*.

(*β*) The varied use of the article.

(*γ*) The construction with the accusatives *εὐθύνας*, *Θηβαίους*, *ὅπλα*.

II. Translate—

Καὶ τοιαῦτα συνειδὼς αὐτῷ πεπραγμένα ὁ ἀκάθαρτος οὗτος τολμήσει βλέπειν εἰς ὑμᾶς, καὶ τὸν βεβιωμένον αὐτῷ βίον αὐτίκα δὴ μάλ' ἐρεῖ λαμπρᾷ τῇ φωνῇ ἐφ' οἷς ἔγωγε ἀποπνίγομαι. οὐκ ἴσασιν οὗτοι τὸ μὲν ἐξ ἀρχῆς τὰς βίβλους ἀναγιγνώσκοντά σε τῇ μητρὶ τελοίσῃ, καὶ παῖδα ὄντα ἐν θιάσοις καὶ μεθύουσιν ἀνθρώποις καλινδούμενον ; μετὰ ταῦτα δὲ ταῖς ἀρχαῖς ὑπογραμματεύοντα καὶ δυοῖν ἢ τριῶν δραχμῶν πονηρὸν ὄντα ; τὰ τελευταῖα δ' ἔναγχος ἐν χορηγίοις ἀλλοτρίοις ἐπὶ τῷ τριταγωνιστεῖν ἀγαπητῶς παρατρεφόμενον ; ποῖον οὖν ἐρεῖς βίον ὃν οὐ βεβίωκας, ἐπεί ὅ γε βεβιωμένος σοι τοιοῦτος ὢν φαίνεται ; ἀλλὰ δὴ τὰ τῆς ἐξουσίας.

III. Translate—

Τοιούτοις μέντοι λόγοις, ὦ κακὴ κεφαλή, σὺ τὰ τῶν προγόνων ἔργα συλήσας καὶ διασύρας τῷ λόγῳ πάντα τὰ πράγματ' ἀπώλεσας. εἶτα γεωργεῖς ἐκ τούτων καὶ σεμνὸς γέγονας. καὶ γὰρ αὖ τοῦτο. πρὸ μὲν τοῦ πάντα κακὰ εἰργάσθαι τὴν πόλιν ὡμολόγει γεγραμματευκέναι καὶ χάριν ὑμῖν ἔχειν τοῦ χειροτονηθῆναι, καὶ μέτριον παρεῖχεν ἑαυτόν· ἐπειδὴ δὲ μυρία εἴργασται κακά, τὰς ὀφρῦς ἀνέσπακε, κἂν "ὁ γεγραμματευκὼς Αἰσχίνης" εἴπῃ τις, ἐχθρὸς εὐθέως καὶ κακῶς φησιν ἀκηκοέναι, καὶ διὰ τῆς ἀγορᾶς πορεύεται θοἰμάτιον καθεὶς ἄχρι τῶν σφυρῶν, ἴσα βαίνων Πυθοκλεῖ, τὰς γνάθους φυσῶν, τῶν Φιλίππου ξένων καί φίλων εἷς οὗτος ὑμῖν ἤδη, τῶν ἀπαλλαγῆναι τοῦ δήμου βουλομένων καὶ κλύδωνα καὶ μανίαν τὰ καθεστηκότα πράγματ' ἡγουμένων, ὁ τέως προσκυνῶν τὴν θόλον.

IV. Criticise this speech as to its weak points, and assign a date to its composition.

GREEK II.

GRAMMAR.

F. Halcomb, Esq., M.A.

I. Of what use and value is the Greek method of accentuation?

II. Assuming that the original ending of the active infinitive is that used by Homer, trace its changes into the Attic dialect.

III. Instance differences between Greek and Latin Syntax.

IV. Explain the construction of the Greek Verbals. How would you render them in Latin?

V. Give Greek forms of the comparison of adjectives. To what positives do you refer *κρείσσων, βελτίων, πλείων*?

VI. To what parts of nouns and verbs do you look for the discovery of their root?

VII. What is the characteristic letter of accusative singular in the three declensions?

COMPOSITION.

Professor Kelly.

Translate into Greek prose—

Padius was a man who so delighted everybody by his cleverness, and by his unexpected replies when he was asked questions, that many ridiculous things are related about him.

Once, having met a friend in the city, he asked him to come to his new house, which was recently built, to dine with him alone. And after the dinner was ended, he begged him to come with him into the upper room, for he would show him some valuable books which he had. And the friend having ascended, seemed to be very much out of breath : so Padius, wondering what was the matter, asked him if he was diseased in his chest : for he would scarcely be so weary if he were well. But the other, fancying he was jesting (since he was fat), answered angrily that he should blame the house, for the staircase was so steep that it nearly killed a man to climb it. But Padius replied, "It was built so on purpose, that it might be hard to climb, and easy to descend: for I have learnt by experience that if I go up once a day, I come down ten times."

ELEMENTARY APPLIED MATHEMATICS. I. DYNAMICS AND HYDROSTATICS.

J. J. Stuckey, Esq., M.A.

I. Explain what is meant by uniformly accelerated velocity? Give an example. How is variable acceleration measured? What is meant by mass? Define equal masses? Also density? and momentum?

II. Given the position, velocities, and directions of motion of two particles moving in one plane, give a geometrical construction for their position when at an assigned distance from one another.

III. Two smooth imperfectly elastic balls moving in one plane with given velocities in given directions impinge obliquely on one another; determine the motion of each after impact.

Two equal bodies of elasticity e start at the same instant with equal velocities from the opposite angles of a square along the sides and impinge; determine the angle between their directions after impact.

IV. Find the velocity acquired and space described from rest in time t by a particle under the action of an uniform accelerating force f. What do the results become if the body has a velocity u at the commencement of the time t?

A particle uniformly accelerated describes 108 and 140 feet in the 5th and 7th seconds of its motion; find the velocity of projection and the numerical measure of the acceleration.

V. Two heavy bodies are projected from the same point at the same instant in the same direction with different velocities; find the direction of the line joining them at any subsequent time.

If an elastic body fell down an inclined plane and impinge on a smooth horizontal plane, find the successive heights and flights, total flight, and ultimate velocity.

VI. Give a definition of a fluid and of specific gravity. Explain the common hydrometer, and show how it gives the ratio of the specific gravities of fluids.

A small vessel entirely filled with water weighs 530 grains; 26 grains of sand are thrown in, and the whole then weighs 540 grains. Find the specific gravity of the sand.

VII. Describe the Diving Bell and explain its action. Find the height to which the water will rise and the tension of the rope supporting the bell.

VIII. Describe the barometer and explain its action. Why is mercury usually used in it?

If a barometer be standing at the height of 30 inches and be placed under the receiver of an air-pump in which the capacity of the barrel and receiver are the same, what will be the height of the mercury after five strokes of the air-pump?

IX. What is the centre of pressure of any surface?

An isosceles triangle has its vortex in the surface of a fluid and its base parallel to it; find the pressure and centre of pressure.

ELEMENTARY APPLIED MATHEMATICS. II.

PROFESSOR LAMB.

I. Find the magnitude and direction of the resultant of two like parallel forces.

A heavy triangular board, ABC, is suspended by three vertical strings attached to the corners A, B, C; prove that the tensions of the strings are equal. Find also the alterations produced in the tensions of the three strings by placing weights of 1, 2, 3 lbs. at A, B, C respectively.

II. State and prove any form of the conditions of equilibrium of a system of forces in one plane.

III. Define the *Centre of Mass* of a material system.

Find the centre of mass of a number of particles lying in a straight line at given distances from a point in that line.

If there be n particles of masses m, $2m$, $3m$, &c., at distances a, $\frac{a}{2}$, $\frac{a}{3}$, &c., prove that the distance of the centre of mass is $\frac{2a}{n+1}$.

IV. If two forces which are not parallel produce equilibrium when acting on a lever, show that they are inversely proportional to the perpendiculars drawn from the fulcrum on their lines of action.

The arms of a lever are of the same length, and the forces acting at the ends of the arms make angles of 30° and 60° with the arms. Prove that the pressure on the fulcrum is double the smaller of the two forces.

V. Find the condition of equilibrium in that system of pulleys in which each pulley hangs by a separate string, and all the strings are parallel. [Neglect the weights of the pulleys.]

If there be *three* moveable pulleys, and if their weights (beginning from the lowest) are 4, 2, 1 lbs. respectively, find the "power" necessary to support a weight of 4 lbs. suspended from the lowest pulley.

VI. State fully the Laws of Statical Friction.

A uniform beam rests in a vertical plane with one end in contact with a smooth vertical wall, and the other end on the ground, which is rough. Find the limiting position of equilibrium.

VII. State carefully and fully the Law of Universal Gravitation. What is the nature of the evidence on which it rests?

Prove that the resultant attraction of an uniform spherical shell on an internal point is zero.

VIII. Draw the "Diagram of Forces" for the frame sketched on the blackboard, and point out which members of the frame are in a state of tension. [A full explanation of the diagram and of the mode of drawing it should be given.]

PHYSICS. I.

PROFESSOR LAMB.

I. Describe the construction of the Barometer, and state precisely what its (unreduced) readings give.

What corrections are usually applied to barometric readings?

II. The density of mercury being 13·6 and that of the air at the earth's surface ·0013, find the change in the reading of a barometer when it is taken from the bottom to the top of a tower 40 metres high.

III. Find the series of notes which can be sounded by a stretched string, and state precisely how the pitch of the fundamental tone depends on the tension, mass, and length of the string.

Supposing the *A* and *D* strings of a violin to be of the same material, length, and thickness, find the ratio of their tensions.

IV. Explain the construction and action of the Reed pipes of an organ.

How is the pitch of a reed-pipe altered by change of temperature?

How are reedpipes tuned?

V. Explain the use of the Sounding Board in a piano or other stringed instrument.

VI. What are the various kinds of imperfection to which the images of objects formed by lenses are subject?

How far, and in what way, do these imperfections admit of remedy?

VII. Explain the terms *Refractive Power, Dispersive Power, Achromatism.*

Explain why absolutely perfect achromatism cannot be obtained.

VIII. Explain carefully the arrangements necessary for forming a pure spectrum on a screen.

How would you verify that the tints of the spectrum are really simple.

IX. Give a short account of the Wave Theory of Light, and show how it explains the laws of reflection and refraction.

PHYSICS. II.

T. C. Cloud, Esq., F.C.S.

I. 1·4336 gramme of oxygen at a temperature of 0°C. and 760 millimetres pressure occupies a volume of 1,000 cubic centimetres. What volume will the same weight of the gas occupy at a pressure of 780 millimetres and with a temperature of —10°C.?

II. What will be the effect of an increased barometrical pressure upon the weight of a glass dish weighed against platinum weights?

III. What effect has the passage of a sound wave upon the temperature of the air through which it passes? How is the velocity of sound affected by the temperature?

IV. Describe the paths taken by the individual particles in the several cases of water waves, sound waves, and the supposed waves of æther which constitute light.

V. Describe a method of experimentally determining the harmonics accompanying the fundamental note in a musical sound.

VI. Describe the condition of a bell when it sounds its fundamental note. How would you proceed to demonstrate its condition by experiment?

VII. The image of a small aperture through which a beam of sunlight is passing is thrown on a screen by means of a lens. How would you employ a rhombohedral crystal of Iceland spar to polarize the beam of light? Describe the effect produced by placing a plate of tourmaline cut parallel to the axis across the path of the beam, and state the deductions which the appearance of the image on the screen enables you to draw regarding the condition of the beam which has passed through the Iceland spar.

VIII. How do you account for the phenomenon of colour in the case of both opaque and transparent substances? Describe experiments illustrating your statements.

IX. What do you understand by the terms *Principal Focus, Virtual Focus, Spherical Aberration,* as applied to concave mirrors?

X. What will be the position and character of the image of an object placed in front of a concave mirror (*a*) when the object is between the principal focus and the mirror, (*b*) when the object is placed between the principal focus and the centre of curvature of the mirror?

CHEMISTRY.

T. C. Cloud, Esq., F. C. S.

I. The percentage composition of a salt is

Potassium	...	45.94
Nitrogen	...	16.45
Oxygen ...	...	37.61
		100.00

Required its formula. Give such details as will show mode of calculation

K = 39.1, N = 14, O = 16.

II. How is it possible to effect the solution of platinum in nitric acid?

III. How would you distinguish between arseniuretted hydrogen and antimoniuretted hydrogen?

IV. How may magnesium be obtained, and what substance is formed when it is burnt in air?

V. Mention two tests by which gold may be recognised when it occurs in solution.

VI. What is the action of hydric sulphide on a solution of ferric chloride? Express the same by an equation.

VII. What will be the volume and weight of hydrogen evolved by dissolving 5 grammes of zinc in hydrochloric acid? Zn = 65.

VIII. What is the difference in the constitution of cane and grape sugar, and how would you distinguish them when in solution?

IX. Explain the action which occurs when metallic silver is brought into contact with moist albumen.

X. Mention the chief sources and chemical properties of the following substances—

Fibrin, Casein, Gelatine.

XI. Describe the process of making oxalic acid from sawdust.

XII. What is methylated spirit.

MATRICULATION EXAMINATION.

MARCH, 1881.

GREEK—XENOPHON.

PROFESSOR KELLY.

I. Translate—

Ὁ δ' ἀπεκρίνατο ὅτι ἀκούει Ἀβροκόμαν, ἐχθρὸν ἄνδρα, ἐπὶ τῷ Εὐφράτῃ ποταμῷ εἶναι, ἀπέχοντα δώδεκα σταθμούς· πρὸς τοῦτον οὖν ἔφη βούλεσθαι ἐλθεῖν· κἂν μὲν ᾖ ἐκεῖ, τὴν δίκην ἔφη χρῆζειν ἐπιθεῖναι αὐτῷ· ἢν δὲ φεύγῃ, ἡμεῖς ἐκεῖ πρὸς ταῦτα βουλευσόμεθα. Ἀκούσαντες δὲ ταῦτα οἱ αἱρετοὶ ἀναγγέλλουσι τοῖς στρατιώταις· τοῖς δὲ ὑποψία μὲν ἦν ὅτι ἄγει πρὸς βασιλέα, ὅμως δὲ ἐδόκει ἕπεσθαι. Προσαιτοῦσι δὲ μισθὸν ὁ Κῦρος ὑπισχνεῖται ἡμιόλιον πᾶσι δώσειν οὗ πρότερον ἔφερον, ἀντὶ δαρεικοῦ τρία ἡμιδαρεικὰ τοῦ μηνὸς τῷ στρατιώτῃ· ὅτι δὲ ἐπὶ βασιλέα ἄγοι οὐδὲ ἐνταῦθα ἤκουσεν οὐδεὶς ἔν γε τῷ φανερῷ.

Also,

Ἀκούσαντες ταῦτα ἐπείθοντο καὶ διέβησαν πρὶν τοὺς ἄλλους ἀποκρίνασθαι. Κῦρος δ' ἐπεὶ ᾔσθετο διαβεβηκότας, ἥσθη τε καὶ τῷ στρατεύματι πέμψας Γλοῦν εἶπεν· Ἐγὼ μέν, ὦ ἄνδρες, ἥδη ὑμᾶς ἐπαινῶ· ὅπως δὲ καὶ ὑμεῖς ἐμὲ ἐπαινέσετε ἐμοὶ μελήσει· ἢ μηκέτι με Κῦρον νομίζετε. Οἱ μὲν δὴ στρατιῶται, ἐν ἐλπίσι μεγάλαις ὄντες, εὔχοντο αὐτὸν εὐτυχῆσαι· Μένωνι δὲ καὶ δῶρα ἐλέγετο πέμψαι μεγαλοπρεπῶς. Ταῦτα δὲ ποιήσας διέβαινε· συνείπετο δὲ καὶ τὸ ἄλλο στράτευμα αὐτῷ ἅπαν· καὶ τῶν διαβαινόντων τὸν ποταμὸν οὐδεὶς ἐβρέχθη ἀνωτέρω τῶν μασθῶν ὑπὸ τοῦ ποταμοῦ. Οἱ δὲ Θαψακηνοὶ ἔλεγον ὅτι οὐ πώποθ' οὗτος ὁ ποταμὸς διαβατὸς γένοιτο πεζῇ, εἰ μὴ τότε, ἀλλὰ πλοίοις· ἃ τότε Ἀβροκόμας προϊὼν κατέκαυσεν, ἵνα μὴ Κῦρος διαβῇ. Ἐδόκει δὴ θεῖον εἶναι καὶ σαφῶς ὑποχωρῆσαι τὸν ποταμὸν Κύρῳ ὡς βασιλεύσοντι.

Account for the mood of διαβῇ in this passage.

Also,

Πρὸς ταῦτα ὁ Κῦρος εἶπε τοῖς παροῦσιν· Ὁ μὲν ἀνὴρ τοιαῦτα μὲν πεποίηκε, τοιαῦτα δὲ λέγει· ὑμῶν δὲ σὺ πρῶτος, ὦ Κλέαρχε, ἀπόφηναι γνώμην εἴ τί σοι δοκεῖ. Κλέαρχος δὲ εἶπε τάδε· Συμβουλεύω ἐγὼ τὸν ἄνδρα τοῦτον ἐκποδὼν ποιεῖσθαι ὡς τάχιστα, ὡς μηκέτι δέῃ τοῦτον φυλάττεσθαι, ἀλλὰ σχολὴ ᾖ ἡμῖν τὸ κατὰ τοῦτον εἶναι τοὺς ἐθελοντὰς φίλους τούτους εὖ ποιεῖν. Ταύτῃ δὲ τῇ γνώμῃ ἔφη καὶ τοὺς ἄλλους προσθέσθαι. Μετὰ ταῦτα, ἔφη, κελεύοντος Κύρου, ἔλαβον τῆς ζώνης τὸν Ὀρόντην ἐπὶ θανάτῳ ἅπαντες ἀναστάντες καὶ οἱ συγγενεῖς· εἶτα δὲ ἐξῆγον αὐτὸν οἷς προσετάχθη. Ἐπεὶ δὲ εἶδον αὐτὸν οἵπερ πρόσθεν προσεκύνουν, καὶ τότε προσεκύνησαν, καίπερ εἰδότες ὅτι ἐπὶ θάνατον ἄγοιτο.

Parse the word *ἀπόφηναι*. Has any other part of the verb this same form?

II. Translate into Greek Prose—

Such then was the death of Cyrus, a man more truly royal and worthy of the sceptre than any of the successors of Cyrus the Elder.

And, again, if any one served him well, he never allowed such zeal to go unrewarded.

When Ariaeus heard of Cyrus's death he fled, taking with him the whole force of which he was in command.

III. Write down the imperfect and future indicative, and the 2nd aorist indicative, subjunctive, optative, infinitive, and participle of the verb *βιόω*.

IV. Decline in full the words—

κρείσσων, *τιμῶν* (part. of *τιμάω*),
Δημοσθένης, *λᾶς*, *σῶς*.

V. How do the Latin and Greek languages differ in their manner of expressing *a purpose, a result, a statement of fact?*

LATIN.—VIRGIL.

PROFESSOR KELLY.

Translate—

Talia voce refert, curisque ingentibus aeger
Spem vultu simulat, premit altum corde dolorem.
Illi se praedae accingunt dapibusque futuris;
Tergora deripiunt costis et viscera nudant;

Pars in frusta secant veribusque trementia figunt ;
Litore aëna locant alii flammasque ministrant.
Tum victu revocant vires, fusique per herbam
Implentur veteris Bacchi pinguisque ferinae.
Postquam exempta fames epulis mensaeque remotae,
Amissos longo socios sermone requirunt,
Spemque metumque inter dubii, seu vivere credant
Sive extrema pati nec jam exaudire vocatos.
Praecipue pius Aeneas nunc acris Oronti,
Nunc Amyci casum gemit et crudelia secum
Fata Lyci fortemque Gyan fortemque Cloanthum.

Also—

" Huic conjux Sychaeus erat, ditissimus agri
Phoenicum et magno miserae dilectus amore,
Cui pater intactam dederat, primisque jugarat
Ominibus. Sed regna Tyri germanus habebat
Pygmalion, scelere ante alios immanior omnes.
Quos inter medius venit furor. Ille Sychaeum
Impius ante aras atque auri caecus amore
Clam ferro incautum superat, securus amorum
Germanae ; factumque diu celavit, et aegram
Multa malus simulans, vanâ spe lusit amantem.
Ipsa sed in somnis inhumati venit imago
Conjugis ; ora modis attollens pallida miris
Crudeles aras trajectaque pectora ferro
Nudavit, caecumque domus scelus omne retexit."

Also—

Postquam introgressi et coram data copia fandi,
Maximus Ilioneus placido sic pectore coepit :
" O Regina, novam cui condere Jupiter urbem
Justitiâque dedit gentes frenare superbas,
Troës te miseri, ventis maria omnia vecti,
Oramus : prohibe infandos a navibus ignes,
Parce pio generi, et propius res aspice nostras.
Non nos aut ferro Libycos populare Penates
Venimus, aut raptas ad litora vertere praedas ;
Non ea vis animo, nec tanta superbia victis.
Est locus, Hesperiam Graji cognomine dicunt,
Terra antiqua, potens armis atque ubere glebae ;
Oenotri coluere viri, nunc fama, minores
Italiam dixisse ducis de nomine gentem."

Also—

Munera praeterea, Iliacis erepta ruinis,
Ferre jubet, pallam signis auroque rigentem,
Et circumtextum croceo velamen acantho,
Ornatus Argivae Helenae, quos illa Mycenis,
Pergama quum peteret inconcessosque Hymenaeos,
Extulerat, matris Ledae mirabile donum;
Praeterea sceptrum, Ilione quod gesserat olim
Maxima natarum Priami, colloque monile
Baccatum et duplicem gemmis auroque coronam.
Haec celerans iter ad naves tendebat Achates.

Translate into Latin—

He determined not to wait till the enemies should recover themselves, but rushed at full gallop upon the middle of their line.

He is called a Christian, but makes pleasure his principal object.

Money has great influence both in all other lands and especially in Australia.

I have enjoyed such good health that for twenty years I have not required medicine.

What is the English of quispiam, quisquis, quisque, quivis, quidam, ecquis, quisnam, identidem, utique, dumtaxat, nempe, scilicet? Derive as many of them as you can.

Write down as many uses of the prepositions *pro* and *prae* as you can, both simply and in composition.

Translate each of the following verbs when used with dative case and with accusative—

Convenire, consulere, cavere, prospicere, praestare, moderari, sufficere.

FRENCH.

G. Le M. Gretton, Esq.

I. Translate into English—

Mais les guerres d'Italie, la chute même du royaume des Lombards, ne furent qu' épisodiques dans les règnes de Pepin et de Charlemagne. La grande guerre du premier est contre les Aquitains, celle de Charles contre les Saxons. Ces tribus, fières et libres, s'attachèrent à leurs vieilles croyances par la haine et la jalousie que les Francs leur inspiraient. Les missionnaires, dont ou les fatiguait, eurent l'imprudence de les

menacer des armes du grand empire. Les Saxons brûlèrent l'église que les Francs avaient construite à Daventer. Ceux-ci-qui peut-être souhaitaient un pretexte pour brusquer par les armes la conversion de leurs voisins barbares, marchèrent droit au sanctuaire des Saxons, au lieu où se trouvait la principale idole.

II. Write down throughout the imperfect subjunctive of *être*, the imperative of *parler*, the imperfect subjunctive of *aimer*, the preterite definite of *apercevoir*, the future of *commencer*.

III. Give the past participle, 1st singular, of preterite definite, and 3rd plural imperfect subjunctive of *Haïr*, *Lire*, *Mettre*, *Payer*, *Mourir*, *Naître*, *Pouvoir*, *Prendre*, *Rire*, *Savoir*, *Coudre*, *Dire*, *Plaire*, *Vaincre*, *voir*, *vouloir*.

III. Compare the following adjectives—
Sage, *Bon* ;
And the following adverbs—
Bien, *Mal*, *Peu* ;
And give the feminine of the following adjectives—
Ancien, *naïf*, *trompeur*, *enchanteur*, *absous*.

V. Translate into English—

Gardez pour d' autres temps cette reconnoissance.
Voilà donc votre roi, votre unique espérance.
J'ai pris soin jusqu 'ici de vous le conserver :
Ministres du Seigneur, c'est à vous d'achever.
Beintôt de Jézabel la fille meutrière,
Instruite que Joas voit encore la lumière,
Dans l'horreur du tombeau viendra le replonger :
Déja, sans le connoître, elle veut l'égorger.
Prêtres saints, c'est à vous de prévenir sa rage ;
Il faut finir des Juifs l'honteux esclavage,
Venger vos princes morts, relever votre roi,
Et faire aux tribus reconnoître leur roi.

VI. Read aloud and translate the following passage—

Ce secret dans le temple est encor renfermé.
Des enfans de Lévi la troupe partagée
Dans un profond silence aux portes s'est rangée.
Tous doivent à la fois précipiter leurs pas,
Et crier pour signal : Vive le roi Joas !
Mais mon père defend que le roi se hasarde,
Et veut qu' Azarias demeure pour sa garde.
Cependant Athalie, un poignard à la main,
Rit des faibles remparts de nos portes d'airain.
Pour les rompre, elle attend les fatales machines
Et ne respire enfin que sang et que ruines.

VII. Put into French—

(*a*) He is in the country.
(*b*) I shall have plenty of wine.
(*c*) He does not talk of your beauty but of mine.
(*d*) The sea is very rough. I fear you will have a bad passage.

GERMAN.

A. Von Treuer, Esq., LL.B.

I. Read the following passage :—

Scheuet Euch nicht, so sagte sie drauf, das Weitre zu sprechen
Ihr beleidigt mich nicht, ich hab' es dankbar empfunden.
Sagt es nur grad' heraus; mich kann das Wort nicht erschrecken
Dingen möchtet Ihr mich als Magd für Vater und Mutter,
Zu versehen das Haus, das wohlerhalten Euch dasteht;
Und Ihr glaubet an mir ein tüchtiges Mädchen zu finden,
Zu der Arbeit geschickt und nicht von rohem Gemüthe.
Euer Antrag war kurz; so soll die Antwort auch kurz sein.
Ja, ich gehe mit Euch, und folge dem Rufe des Schicksals.—

II. Translate the same into English.

III. Translate into English—

Da versetzte das Mädchen mit ernsten Blicken und sagte:
Freunde, dieses ist wohl das letzte Mal, daß ich den Krug Euch
Führe zum Munde, daß ich die Lippen mit Wasser Euch netze.
Aber wenn Euch fortan am heißen Tage der Trunk labt,
Wenn Ihr im Schatten der Ruh' und der reinen Quellen genießet,
Dann gedenket auch mein und meines freundlichen Dienstes,
Den ich aus Liebe mehr als aus Verwandtschaft geleistet.

IV. Translate into English—

Herrlich glänzte der Mond, der volle, vom Himmel herunter;
Nacht war's, völlig bedeckt das letzte Schimmern der Sonne.
Und so lagen vor ihnen in Massen gegen einander,
Lichter, hell wie der Tag, und Schatten dunkeler Nächte.
Und es hörte die Frage, die freundliche, gern in dem Schatten,
Hermann, des herrlichen Baums, am Orte, der ihm so lieb war,
Der noch heute die Thränen um seine Vertriebne gesehen.

V. Translate into English—

Schicken Sie
Mich mit dem Heer nach Flandern, wagen Sie's
Auf meine weiche Seele! Schon der Name
Des königlichen Sohnes, der voraus
Vor meinen Fahnen fliegen wird, erobert,
Wo Herzog Alba's Henker nur verheeren.

VI. Translate into German :—

Sweet prince, tell me again of thy palace by the Lake of Como ; it is so pleasant to hear of thy splendours since thou didst swear to me that they would be desolate without Pauline.

VII. Translate into German :—

Look up ! Look up, Pauline ! for I can bear
Thine eyes ! The stain is blotted from my name.
I have redeem'd mine honour. I can call
On France to sanction thy divine forgiveness !

VIII. Parse the following lines :—

Aber heute will ich
Den Meiſterſchuß thun, und das Beſte mir
Im ganzen Umkreis des Gebirgs gewinnen.

ENGLISH LANGUAGE.

PROFESSOR DAVIDSON.

I. Write the following passage :—

God, with His Divine Providence overrules and guides all actions to the secret end He has ordained them ; but in the way of human causes, a wise man may easily discern that there is a natural connection betwixt them ; and though he cannot foresee accidents, or all things that possibly can come, he may apply examples, and by them foretell that from the like counsels will probably succeed the like events ; and thereby in all concernments, and all offices of life, be instructed in the two main points on which depend our happiness—that is, what to avoid, and what to choose.—*Dryden.*

II. Give a definition of "Grammar," and mention its divisions.

III. What is an Adverb? Describe the various kinds of adverbs, and give, in short sentences, illustrations of their use.

IV. Give a list of strong verbs, classifying them according to the character of the vowel-change.

V. Parse the following lines :—

"These are Thy glorious works, Parent of good,
"Almighty, Thine this universal frame,
"Thus wondrous fair ; Thyself how wondrous then !"

VI. Analyse the same lines.

VII. Correct errors (if any) in the following sentences :—

(*a*) Who are you looking for ?
(*b*) Neither you or he are in the right.
(*c*) I intended to have been present.
(*d*) "After the most straitest sect of our religion, I lived a Pharisee."
(*e*) "A rose, by any other name, would smell as sweet."
(*d*) (He) "Disclosed a fruit of pure Hesperian gold
"That smelt ambrosially."

Give reasons for your corrections.

VIII. Give the derivation and definition of the following words :—
Intend, Disclose, Counsel, Council, Fortify, Derive, Define, Perhaps, Likely, Wonderful.

IX. Give a list of prefixes and affixes, with illustrations. Explain their derivation and meaning.

X. Write an essay on one of the following subjects :—

(*a*) Adelaide and its neighbourhood.
(*b*) The history of a day at school.
(*c*) The importance of being truthful.

HISTORY OF ENGLAND.

PROFESSOR DAVIDSON.

I. Give a short account of the 'Heptarchy.'

II. What was the character of King Alfred ? What special benefits did he confer upon England ?

III. Who was the first Prince of Wales ? Under what circumstances did he become so ? What is the crest and motto of the Princes of Wales ? By whom were they first used ?

IV. What was the nature of the 'Benevolence' system, introduced by Edward the Fourth ? and into what forms was it subsequently developed ?

V. Give some account of the Conquest of Ireland.

VI. What was the 'Pale' ? Who were the 'Barons of the Pale' ? In whose honour were two shires named 'King's County' and 'Queen's County' ?

VII. Name the principal heroes, and literary men of the time of Queen Elizabeth and King James the First, and mention the deeds or works for which they are famous.

VIII. Describe the characters of Kings James the First, Charles the First, Charles the Second, and James the Second.

IX. Give a short account of the Rebellion of A.D. 1745.

X. What occasioned the Revolt of the American Colonies ?

XI. Give the dates of the following events :—

(*a*) Norman Conquest.
(*b*) Signing of 'Magna Charta.'
(*c*) Crusade of King Richard the First.
(*d*) Battle of Bannockburn.
(*e*) Battle of Poitiers.
(*f*) Union of the Crowns of England and Scotland.
(*g*) Plague of London.
(*h*) Flight of King James the Second.
(*j*) Massacre of Glencoe.
(*k*) Death of King George the Second.

ARITHMETIC AND ALGEBRA.

PROFESSOR LAMB.

I. Find the value of 29 things, seven of which cost £26 18s. $10\frac{1}{4}$d.

II. Explain the reason of the rule for Addition of Fractions.

Reduce

$$\frac{1}{2} + \frac{1}{3} + \frac{1}{4} - \frac{7}{8} - \frac{5}{8} - \frac{2}{10} + \frac{10}{12}$$

to a fraction in its lowest terms.

III. Prove the rule for division of decimals.

Example : ·063175 ÷ ·0035.

IV. A square field is bordered by a path three yards wide, the field and path together occupying two and a-half acres. Find the cost of covering the path with gravel at 1s. 6d. per square yard.

V. Find the amount of 100 guineas in 3 years at $4\frac{1}{4}$ per cent. compound interest.

VI. The true length of a year is 365 days, 5 hours, 48 min., 48 sec. In every 400 successive years the calendar gives 303 ordinary years, and 97 leap years. In how many years will the error introduced by this method of reckoning amount to one day ?

Prove that March 9th, A.D. 2281, will fall on a Wednesday.

VII. Divide

(i) $2x^6 - 3x^4 + 1$ by $x^2 + 2x + 1$, and

(ii) $(x^3 - yz)^2 - (y^2 - zx)(z^2 - xy)$ by $x + y + z$.

VIII. Define *Greatest Common Measure* and *Highest Common Factor*. Show by an example that these have not necessarily the same numerical value.

Find the H.C.F. of

$3x^3 + 4x^2 + 10x + 3$ and $3x^3 - 2x^2 + 8x + 3$.

IX. State precisely the meaning of $\frac{a}{b} \times \frac{c}{d}$, and prove from your definition that it $= \frac{ac}{bd}$.

X. Solve the equation

$$4x - \frac{3x+1}{7} = 3(x+2),$$

and give the reason for each step of the process.

XI. A man has £4,100 which he invests in 3 per cent. stock at 87 and 5 per cent. stock at 104. What sums must he invest in the respective stocks to make $3\frac{1}{2}$ per cent. on the whole?

GEOMETRY.

PROFESSOR LAMB.

I. What is the fundamental property of the straight line? State where it is first explicitly, and where first implicitly, made use of.

II. Give *independent* proofs of the following two propositions :—

(1) The greater side of any triangle has the greater angle opposite to it.

(2) The greater angle of any triangle has the greater side opposite to it.

III. Define Parallel Straight Lines.

How does it appear that straight lines satisfying the definition exist?

IV. Parallelograms on the same base and between the same parallels are equal in area.

ABC is a triangle, and the sides AB, AC are trisected in the points D, E and F, G respectively; prove that DF, EG are each parallel to BC.

V. In a right-angled triangle the square on the hypothenuse is equal to the sum of the squares on the other two sides.

VI. State and prove the geometrical theorem corresponding to the algebraical identity

$$(a-b)^2 = a^2 + b^2 - 2ab.$$

VII. If a straight line be bisected and produced, the squares on the whole line thus produced and on the part produced are together double of the squares on half the original line and on the line which is made up of the half and the part produced.

VIII. AB is a diameter of a circle, and at a point P in it a perpendicular PC is drawn meeting the circumference in C; prove that the rectangle contained by AP, PB is equal to the square on PC.

Also that the rectangle contained by AP, AB is equal to the square on AC.

NATURAL HISTORY.

PROFESSOR TATE.

I.

I. What are, in general, the causes of deserts? Describe the condition of one or more of such regions.

II. What are the chief chemical constituents of sea-water? Discuss the various natural circumstances and operations which affect its composition.

III. Describe the character and source of the sediment of the Nile, and state the cause of the annual overflow in Lower Egypt.

IV. Describe the origin of the Icebergs of Davis Straits.

V. Describe fully the construction of a Sea Beach, and explain its mode of formation.

VI. How is it proved that the relative level of land and sea has been altered?

VII. Name the rock specimens on the table.

VIII. Define the terms *moraine, talus, disintegration, crystalline limestone,* and *valley of erosion.*

II.

I. Describe the accompanying leaves as to the following particulars:—*position, insertion, division, margin,* and *shape.*

II. Describe and represent by drawings: *cyme, raceme, compound umbel,* and *spike.*

III. Fill up the accompanying schedules with reference to the plants placed before you.

IV. Interprete fully—Sepals 4; petals 4, clawed; stamens tetradidymous; fruit 2-celled; dehiscing by valves; placentas 2 parietal.

V. Describe the fruit of a sow-thistle.

VI. Describe the flower of a gum-tree.

CHEMISTRY.

PROFESSOR TATE.

I. Describe the preparation of oxygen from potassic chlorate. How many ounces of oxygen can be obtained from 115 ounces of potassic chlorate—K = 39, O = 16, Cl = 35·5?

II. What is the composition of each of the following substances:—air, water, ammonia, marsh gas, and plumbago? Give the names of the substances represented by the formulæ:—CO, N_2O, SO_2, NH_4Cl, HNO_3.

III. How would you ascertain whether a given black powder is composed of iodine or blacklead?

IV. What product is formed when sulphur is burnt in oxygen? and how many grains of sulphur will be required to form 100 grains of the product?

V. Name the chief mineral acids and their particular commercial uses.

VI. Explain the terms *filtration, precipitation, saturation, sublimation,* and *effervescence.*

GEOGRAPHY.

G. Le M. Gretton, Esq.

(Candidates may draw rough maps in answering questions 4, 5, 6.)

I. Draw rough outline map of Asia.

II. Show thereon by numbers referring to a separate list the positions of the various countries in Asia.

III. Show on it in the same way the Obi and Amour Rivers, Palk Strait, the Persian Gulf, the Straits of Bab-el-Mandeb, the Altai Mountains, Lake Balkhash, Delhi, Canton, Kurrachee.

IV. State fully where the following towns in Australasia are, viz.:—Port Augusta, Port Lincoln, Ararat, Sale, Bathurst, Newcastle, Brisbane, Launceston, Napier, Hokitika? Add any information you can about these places.

V. Through what countries in Europe do the following rivers run and through what lakes (if any), viz.:—Volga, Dniester, Danube, Tagus, Rhone, Po, Rhine, Elbe, Ebro?

VI. Describe the course of the Equatorial Current and Gulf Stream.

VII. Mention three of the highest volcanoes of the world, with their geographical position, and the range of which they form part.

VIII. What is the broad difference between the form of government in Western Australia and the other Australian Colonies?

IX. } Viva voce.
X. }

NOVEMBER, 1881.

ORDINARY EXAMINATIONS.

FIRST YEAR.

MATHEMATICS I.

MR. BAKEWELL.

I. Prove that triangles on the same base and between the same parallels are equal.

If a point be taken within a parallelogram the sum of the triangles formed by joining it to the extremities of a pair of opposite sides is equal to half the parallelogram.

II. The straight line drawn at right angles to the diameter of a circle from the extremity of it falls without the circle, and no straight line can be drawn from the extremity between that straight line and the circumference, so as not to cut the circle.

$A\ B$ is the diameter of a circle, PMP' any chord at right angles to it; on AM, BM semicircles are described meeting $AP\ BP$ at QR. Show that QR is a common tangent to the semicircles.

III. About a given circle describe a triangle equiangular to a given triangle.

From each point of contact a straight line is drawn perpendicular to the straight line joining the other two. Prove that the straight lines joining the feet of their perpendiculars are parallel to the sides of the triangle.

IV. Describe an equilateral and equiangular pentagon in a given circle.

Show that the circles, each of which touches two sides at the extremities of a third meet at a point.

V. If a straight line be drawn parallel to one of the sides of a triangle it cuts the other sides or those sides produced proportionately.

Inscribe an equilateral triangle in a given sector of a circle.

VI. Prove that similar triangles are to one another in the duplicate ratio of their homologous sides.

VII. Define the recant tangent and versed sine of an angle.

Trace the changes in sign and magnitude of the tangent as the angle increases from 0° to 360°.

VIII. Investigate a general expression for all angles which have a given cosine.

IX. Given cos θ, find tan θ and cosec θ.

Solve the equation

$$\text{Sin } \theta + \text{cosec } \theta = 2.$$

MATHEMATICS II.

PROFESSOR LAMB.

I. State and prove the Commutative and Associative Laws of Multiplication.

II. (1) If $x = a + d,\ y = b + d,\ z = c + d,$

prove that

$$x^2 + y^2 + z^2 - yz - zx - xy = a^2 + b^2 + c^2 - bc - ca - ab.$$

(2) Divide

$$(4x^3 - 3a^2x)^2 + (4y^3 - 3a^2y)^2 - a^6$$

by $x^2 + y^2 - a^2$.

III. A tradesman marks his goods at a certain rate per cent. above the cost price, and, deducting 10 per cent. on this marked price for ready money, finds that he makes 8 per cent. profit on his outlay. How does he mark his goods?

IV. If α, β be the roots of the equation

$$x^2 + px + q = 0,$$

prove that $\alpha + \beta = -p$, and $\alpha\beta = q$.

Form the equation whose roots are $\alpha + k,\ \beta + k$.

Solve the equation

$$a(b-c)x^2 + b(c-a)x + c(a-b) = 0.$$

V. A man travels 24 miles on a bicycle; if his wheel had made 8 more revolutions per minute he would have done the distance in 10 minutes less time, and if the circumference had been 1 foot greater, and had made the same number of revolutions

as it did, he would have gone 2 miles farther. What time did he take?

VI. Investigate the formula for the sum of n terms of a Geometrical Progression whose first term is x and common ratio y.

If the progression has an odd number of terms, prove that the middle term is the Geometric Mean between the first and last terms.

VII. Explain the terms *Permutation* and *Combination*.

Find the number of permutations of n things taken r at a time.

There are n points in a plane, and no three of them are in a straight line. How many closed n-sided figures can be formed by joining these points by straight lines? Verify your result for the case $n = 4$.

VIII. Prove the formula for tan $(A + B)$ in terms of tan A, tan B, and verify it in the following cases: (1) $A = 60°$, $B = 30°$, (2) $A = 60°$, $B = 60°$, (3) $A = 90°$, $B = 45°$.

IX. Prove the formula giving the cosine of an angle of a triangle in terms of the sides.

If $a \cos B = b \cos A$ prove that $a = b$.

X. Define a *Logarithm*, and state the special advantages of a system of logarithms to the base 10.

Prove that log. $a^n = n$ log. a.

In a plane triangle $a = 517362$, $b = 815723$, $C = 38° 17' 40''$; find the area. [Use logarithmic tables.]

NATURAL PHILOSOPHY I.

PROFESSOR LAMB.

I. A certain force acting for five seconds on a mass of 10 lbs. generates a velocity of 1,000 feet per second. Find the velocity generated, and the space described, in 10 minutes from rest, when the same force acts on a mass of one ton.

II. Distinguish between the *Weight* and the *Mass* of a body.

State clearly the experimental evidence that the gravity of a body at any given place is proportional to its mass.

III. State, with the proper restrictions, the laws relating to the oscillations of a simple pendulum.

The length of a pendulum beating seconds at a certain place is 99.4 centimetres. Find the time of a complete oscillation of a pendulum 10 metres long.

IV. Explain the action of the Wedge, neglecting friction.

The breadth of the base of a wedge is ·75 inch, and the length of each of its faces is 6 inches; the wedge is inserted in a cleft and pushed inwards with a force of 50 lbs. Find the pressure on the sides of the cleft.

V. State carefully the laws of Friction.

A book rests on a sheet of paper placed on a table. If the sheet of paper be pulled gently in a horizontal direction it drags the book with it, but if it is pulled with a jerk it slips from beneath the book, which scarcely moves. Explain this.

VI. Explain the principle of the Hydraulic Press.

Verify that, neglecting friction, there is no gain or loss of work in the use of this machine.

VII. Define the terms *Density* and *Specific Gravity*, and prove that in the centimetre-gramme-second system of units these two quantities are sensibly equal.

Explain carefully a method, based on the principle of Archimedes, of finding the specific gravity of a liquid.

VIII. Describe Toricelli's experiment, and explain precisely what it proves.

If a little air be present in the space above the mercurial column, how may its presence be detected?

NATURAL PHILOSOPHY II.

MR. FLETCHER.

I. Explain the construction and action of the Condensing Pump.

If the capacity of the barrel be 10 cubic inches, and that of the receiver 120 cubic inches, find the pressure of the air in the receiver after five strokes.

II. State the laws of expansion of gases.

What is the distinction between a *gas* and a *vapour*?

III. If a flask containing water which has just ceased boiling be corked up and immersed in a vessel of cold water, the contained water will begin to boil again. Explain fully the reason of this.

IV. Explain what is meant by *Conduction of Heat*; and describe experiments illustrating (1) the differences in conducting power between different metals, and (2) the feeble conducting power of water.

V. Explain carefully the reflection of a sound-wave incident perpendicularly on a large flat wall.

Standing at one end of a long bare room I clap my hands. What will be the interval between successive echoes, if the length of the room be 125 feet and the velocity of sound 1,120 feet per second?

VI. Describe fully the nature of the motion of the air within an open organ pipe, (1) when it is sounding its fundamental tone, and (2) when it is sounding its first harmonic.

Describe experiments in support of your statements.

VII. Describe carefully the course of a pencil of rays proceeding from a luminous point and reflected by a concave mirror, in the various cases that may arise.

Find by means of a diagram drawn (as nearly as may be) to scale, the position and magnitude of the image of an object one foot in diameter placed at a distance of 10 feet from a concave mirror, whose focal length is 9 feet.

VIII. What is meant by the *Dispersion* of light?

Describe and explain the experimental arrangements necessary for the projection of a pure spectrum on a screen.

To what are the colours of natural objects due?

LATIN.

TERENCE.

PROFESSOR KELLY.

PAMPHILVS. MYSIS.

I. Translate—

PA. Hocinest humanum factu aut inceptu? hocinest officium patris?
MY. Quid illud est? PA. Pro deum fidem, quid est, si hoc non contumeliast?
Vxorem decrerat dare sese mi hodie: nonne oportuit
Praecisse me ante? nonne prius communicatum oportuit?
MY. Miseram me, quod uerbum audio?
PA. Quid? Chremes, qui denegarat se commissurum mihi
Gnatam suam uxorem, id mutauit, quia me inmutatum uidet?
Itane obstinate dat operam, ut me a Glycerio miserum abstrahat?
Quod si fit, pereo funditus.
Adeon hominem esse inuenustum aut infelicem quemquam, ut ego sum!

Pro deum atque hominem fidem!
Nullon' ego Chremetis pacto adfinitatem ecfugere potero?
Quot modis contemptus, spretus! facta, transacta omnia. hem
Repudiatus repetor: quam obrem? nisi si id est, quod suspicor:
Aliquid monstri alunt: ea quoniam nemini obtrudi potest,
Itur ad me.

CHREMES. MYSIS. DAVOS.

II. Translate—

CH. Reuortor, postquam quae opus fuere ad nuptias
Gnatae paraui, ut iubeam arcessi. sed quid hoc?
Puer herclest. mulier, tu adposuisti hunc? MY. Vbi illic est?
CH. Non mihi respondes? MY. Nusquam est. uae miserae mihi,
Reliquit me homo atque abiit. DA. Di uostram fidem,
Quid turbaest apud forum? quid illi hominum litigant?
Tum annona carast. quid dicam aliud, nescio.
MY. Quor tu obsecro hic me solam? DA. Hem, quae haec est fabula?
Eho Mysis, puer hic undest? quisue huc attulit?
MY. Satin sanu's, qui me id rogites? DA. Quem igitur rogem,
Qui hic neminem alium uideam? CH. Miror, unde sit.
DA. Dictura es quod rogo? MY. Au. DA. Concede ad dexteram.
MY. Deliras: non tute ipse? DA. Verbum si mihi
Unum praeter quam quod te rogo . . faxis caue.
Male dicis? undest? dic. MY A nobis. DA. Hahahae:
Mirum uero, impudenter mulier si facit
Meretrix? CH. Ab Andriast haec, quantum intellego.
DA. Adeon uidemur uobis esse idonei,
In quibus sic inludatis? CH. Veni in tempore.
DA. Propera adeo puerum tollere hinc ab ianua
Mane: caue quoquam ex istoc excessis loco.

CHREMES. CLITIPHO. SYRVS.

III. Translate—

CH. Quid tu? ecquid de illo quod dudum tecum egi egisti, Syre?
Aut *est* tibi quod placeat an non dum etiam? SY. De fallacia
Dicis? est: inueni nuper quandam. CH. Frugi es. ecdo
quid est?
SY. Dicam, uerum ut aliud ex alio incidit. CH. Quid nam, Syre
SY. Pessuma haec est meretrix. CH. Ita uidetur. SY. Immo si scias
Vah, uide quod inceptat facinus. fuit quaedam anus Corinthia:
Huice drachumarum haec argenti mille dederat mutuom.
CH. Quid tum? SY. Ea mortuast: reliquit filiam adulescentulam.
Ea relicta huic arrabonist pro illo argento. CH. Intellego.
SY. Hanc secum huc adduxit, ea quae est nunc apud uxorem tuam.

CH. Quid tum? SY. Cliniam orat, sibi uti id nunc det: illam illi tamen
Post daturam: mille mummum poscit. CH. Et poscit quidem? SY. Hui,
Dubium id est? ego sic putaui.

Write notes on the words—invenustus—faxis—arrhabo—excessis.

"O dimidiate Menander." By whom is Terence thus described and why? Complete the quotation.

VIRGIL. ÆNEID, VI. AND VII.

MR. HALCOMB.

I. Translate—

Inter quas Phoenissa recens a volnere Dido
Errabat silva in magna; quam Troius heros
Ut primum iuxta stetit adgnovitque per umbras
Obscuram, qualem primo qui surgere mense
Aut videt, aut vidisse putat per nubila Lunam,
Demisit lacrimas, dulcique adfatus amore est:
Infelix Dido, verus mihi nuntius ergo
Venerat exstinctam, ferroque extrema secutam?
Funeris heu tibi caussa fui? Per sidera iuro,
Per superos et si qua fides tellure sub ima est,
Invitus, regina, tuo de litore cessi.
Sed me iussa deum, quae nunc has ire per umbras,
Per loca senta situ cogunt noctemque profundam,
Imperiis egere suis; nec credere quivi
Hunc tantum tibi me discessu ferre dolorem.
Siste gradum, teque aspectu ne subtrahe nostro.
Quem fugis? extremum fato, quod te adloquor, hoc est.
Talibus Aeneas ardentem et torva tuentem
Lenibat dictis animum, lacrimasque ciebat.
Illa solo fixos oculos aversa tenebat,
Nec magis incepto voltum sermone movetur,
Quam si dura silex aut stet Marpesia cautes.
Tandem corripuit sese, atque inimica refugit
In nemus umbriferum, coniunx ubi pristinus illi
Respondet curis aequatque Sychaeus amorem.
Nec minus Aeneas, casu concussus iniquo,
Prosequitur lacrimis longe, et miseratur euntem.
Inde datum molitur iter.

Principio caelum ac terras camposque liquentis
Lucentemque globum Lunae Titaniaque astra
Spiritus intus alit, totamque infusa per artus
Mens agitat molem et magno se corpore miscet.
Inde hominum pecudumque genus vitaeque volantum
Et quae marmoreo fert monstra sub aequore pontus.
Igneus est ollis vigor et caelestis origo
Seminibus, quantum non noxia corpora tardant
Terrenique hebetant artus moribundaque membra.

The latter passage with notes if necessary.

II. Translate into English and into Greek—

Quin protinus omnia
Perlegerent oculis, ni jam praemissus Achates Adforet.

III. Translate—

Aeneas primique duces et pulcher Iulus
Corpora sub ramis deponunt arboris altae,
Instituuntque dapes, et adorea liba per herbam
Subiiciunt epulis,—sic Iuppiter ille monebat—
Et Cereale solum pomis agrestibus augent.
Consumptis hic forte aliis, ut vertere morsus
Exiguam in Cererem penuria adegit edendi
Et violare manu malisque audacibus orbem
Fatalis crusti patulis nec parcere quadris,
Heus, etiam mensas consumimus ! inquit Iulus,
Nec plura, adludens. Ea vox audita laborum
Prima tulit finem, primamque loquentis ab ore
Eripuit pater, ac stupefactus numine pressit.

Explaining the drift of the passage.

IV. Translate, referring to the context where neccssary—

a. Pura juvenis qui nititur hasta.

b. Junoni infernae dictus sacer.

c. Supponunt alii cultros.

d. Gaudet cognomine terra.

e. Quisque suos patimur Manes.

f. Ipse Quirinali trabea cinctuque Gabino
Insignis reserat stridentia limina Consul.

g. Recoquunt patrios fornacibus enses.

GREEK.

PROFESSOR KELLY AND MR. HALCOMB.

MEDEA.

I. Translate—

ΧΟ. ἄιες, ὦ Ζεῦ καὶ γᾶ καὶ φῶς,
ἰαχὰν οἵαν ἁ δύστανος
μέλπει νύμφα;
τίς σοί ποτέ τᾶς ἀπλήστου
κοίτας ἔρος, ὦ ματαία,
σπεύσει θανάτου τελευτάν;
μηδὲν τόδε λίσσου.
εἰ δὲ σὸς πόσις
καινὰ λέχη σεβίζει,
κείνῳ τόδε μὴ χαράσσου·
Ζεύς σοι τάδε συνδικήσει.
μὴ λίαν
τάκου δυρομένα σὸν εὐνέταν.

And note the poetical or dialectical variations from Attic prose forms.

II. Translate—

ΧΟ. Ἐρεχθεΐδαι τὸ παλαιὸν ὄλβιοι,
καὶ θεῶν παῖδες μακάρων, ἱερᾶς
χώρας ἀπορθήτου τ' ἀποφερβόμενοι
[κλεινοτάταν σοφίαν,] ἀεὶ διὰ λαμπροτάτου
βαίνοντες ἁβρῶς αἰθέρος, ἔνθα ποθ' ἁγνὰς
ἐννέα Πιερίδας Μούσας λέγουσι
ξανθὰν Ἁρμονίαν φυτεῦσαι·
τοῦ καλλινάου τ' ἀπὸ Κηφισοῦ ῥοὰς
τὰν Κύπριν κλήζουσιν ἀφυσσαμέναν
χώραν καταπνεῦσαι μετρίας ἀνέμων
[ἡδιπνόους αὔρας]· ἀεὶ δ' ἐπιβαλλομέναν
χαίταισιν εὐώδη ῥοδέων πλόκον ἀνθέων
τᾷ σοφίᾳ παρέδρους πέμπειν ἔρωτας,
παντοίας ἀρετᾶς ξυνεργούς.
πῶς οὖν ἱερῶν ποταμῶν
ἢ πόλις ἢ φίλων
πόμπιμός σε χώρα
τὰν παιδολέτειραν ἕξει
τὰν οὐχ ὁσίαν μετ' ἄλλων;
σκέψαι τεκέων πλαγάν,
σκέψαι φόνον οἷον αἴρει.

III. Translate—

φεῦ φεῦ· τί προσδέρκεσθέ μ' ὄμμασιν, τέκνα;
τί προσγελᾶτε τὸν πανύστατον γέλων;
αἰαῖ· τί δράσω; καρδία γὰρ οἴχεται,
γυναῖκες, ὄμμα φαιδρὸν ὡς εἶδον τέκνων.
οὐκ ἂν δυναίμην· χαιρέτω βουλεύματα
τὰ πρόσθεν· ἄξω παῖδας ἐκ γαίας ἐμούς.
τί δεῖ με πατέρα τῶνδε τοῖς τούτων κακοῖς
λυποῦσαν αὐτὴν δὶς τόσα κτᾶσθαι κακά;
οὐ δῆτ' ἔγωγε. χαιρέτω βουλεύματα.
καίτοι τί πάσχω; βούλομαι γέλωτ' ὀφλεῖν
ἐχθροὺς μεθεῖσα τοὺς ἐμοὺς ἀζημίους;
τολμητέον τάδ'. ἀλλὰ τῆς ἐμῆς κάκης,
τὸ καὶ προέσθαι μαλθακοὺς λόγους φρενός.
χωρεῖτε, παῖδες, ἐς δόμους· ὅτῳ δὲ μὴ
θέμις παρεῖναι τοῖς ἐμοῖσι θύμασιν,
αὐτῷ μελήσει· χεῖρα δ' οὐ διαφθερῶ.
ἆ ἆ.
μὴ δῆτα, θυμέ, μὴ σύ γ' ἐργάσῃ τάδε·
ἔασον αὐτούς, ὦ τάλαν, φεῖσαι τέκνων·
ἐκεῖ μεθ' ἡμῶν ζῶντες εὐφρανοῦσί σε.
μὰ τοὺς παρ' Ἅιδῃ νερτέρους ἀλάστορας,
οὔτοι ποτ' ἔσται τοῦθ' ὅπως ἐχθροῖς ἐγὼ
παῖδας παρήσω τοὺς ἐμοὺς καθυβρίσαι.

IV. Translate—

(α) εἶεν. καὶ δὴ τεθνᾶσι.
(β) δεῖ μ', ὡς ἔοικε, μὴ κακὸν φῦναι λέγειν,
ἀλλ' ὥστε ναὸς κεδνὸν οἰακοστρόφον
ἄκροισι λαίφους κρασπέδοις ὑπεκδραμεῖν
τὴν σὴν στόμαργον, ὦ γύναι, γλωσσαλγίαν.
(γ) μὴ πρὸς σὲ γούνων.

V. Explain the function of the Chorus in this play.

I. Translate—

Ἃ γιγνώσκοντες οἱ στρατηγοὶ τῶν Ἀθηναίων καὶ βουλόμενοι αὐτοὺς ἄγειν πανδημεὶ ἐκ τῆς πόλεως ὅτι πλεῖστον, αὐτοὶ δὲ ταῖς ναυσὶν ἐν τοσούτῳ ὑπὸ νύκτα παραπλεύσαντες στρατόπεδον καταλαβεῖν ἐν ἐπιτηδείῳ καθ' ἡσυχίαν, εἰδότες οὐκ ἂν ὁμοίως δυνηθέντες [καὶ] εἰ ἐκ τῶν νεῶν πρὸς παρεσκευασμένους ἐκβιβάζοιεν ἢ κατὰ γῆν ἰόντες γνωσθείησαν (τοῦς γὰρ ἂν ψιλοὺς τοὺς

σφῶν καὶ τὸν ὄχλον τῶν Συρακοσίων τοὺς ἱππέας πολλοὺς ὄντας, σφίσι δ' οὐ παρόντων ἱππέων, βλάπτειν ἂν μεγάλα· οὕτω δὲ λήψεσθαι χωρίον ὅθεν ὑπὸ τῶν ἱππέων οὐ βλάψονται ἄξια λόγου· ἐδίδασκον δ' αὐτοὺς περὶ τοῦ πρὸς τῷ Ὀλυμπιείῳ χωρίου, ὅπερ καί κατέλαβον, Συρακοσίων φυγάδες οἳ ξυνείποντο), τοιόνδε τι οὖν πρὸς ἃ ἐβούλοντο οἱ στρατηγοὶ μηχανῶνται. πέμπουσιν ἄνδρα σφίσι μὲν πιστόν, τοῖς δὲ τῶν Συρακοσίων στρατηγοῖς τῇ δοκήσει οὐχ ἧσσον ἐπιτήδειον· ἦν δὲ Καταναῖος ὁ ἀνήρ, καὶ ἀπ' ἀνδρῶν ἐκ τῆς Κατάνης ῎κειν ἔφη ὧν ἐκεῖνοι τὰ ὀνόματα ἐγίγνωσκον καὶ ἐπίσταντο ἐν τῇ πόλει ἔτι ὑπολοίπους ὄντας τῶν σφίσιν εὐνόων. ἔλεγε δὲ τοὺς Ἀθηναίους αὐλίζεσθαι ἀπὸ τῶν ὅπλων ἐν τῇ πόλει, καὶ εἰ βούλονται ἐκεῖνοι πανδημεὶ ἐν ἡμέρᾳ ῥητῇ ἅμα ἕῳ ἐπὶ τὸ στράτευμα ἐλθεῖν, αὐτοῖ μὲν ἀποκλήσειν αὐτοὺς παρὰ σφίσι καὶ τὰς ναῦς ἐμπρήσειν, ἐκείνους δὲ ῥᾳδίως τὸ στράτευμα προσβαλόντας τῷ σταυρώματι αἱρήσειν· εἶναι δὲ ταῦτα τοὺς ξυνδράσοντας πολλοὺς Καταναίων, καὶ ἡτοιμάσθαι ἤδη, ἀφ' ὧν αὐτὸς ἥκειν.

II. Translate—

"Γίγνεσθαι δέ τι αὐτων καὶ ἐν τάχει καὶ προθυμότερον ἐν ὑμῖν ἐστιν, ὦ Λακεδαιμόνιοι, ἐπεὶ ὥς γε δυνατά, (καὶ οὐχ ἁμαρτήσεσθαι οἶμαι γνώμης) πάνυ θαρσῶ. καὶ χείρων οὐδενὶ ἀξιῶ δοκεῖν ὑμῶν εἶναι, εἰ τῇ ἐμαυτοῦ μετὰ τῶν πολεμιωτάτων φιλόπολίς ποτε δοκῶν εἶναι νῦν ἐγκρατῶς ἐπέρχομαι, οὐδὲ ὑποπτεύεσθαί μοῦ ἐς τὴν φυγαδικὴν προθυμίαν τὸν λόγον. φυγάς τε γάρ εἰμι τῆς τῶν ἐξελασάντων πονηρίας καὶ οὐ τῆς ὑμετέρας, ἣν πειθήσθέ μοι, ὠφελίας· καὶ πολεμιώτεροι οὐχ οἱ τοὺς πολεμίους που βλάψαντες ὑμεῖς ἢν οἱ τοὺς φίλους ἀναγκάσαντες πολεμίους γενέσθαι. τό τε φιλόπολι οὐκ ἐν ᾧ ἀδικούμαι ἔχω, ἀλλ' ἐν ᾧ ἀσφαλῶς ἐπολιτεύσθην. οὐδ' ἐπὶ πατρίδα οὖσαν ἔτι ἡγοῦμαι νῦν ἰέναι, πολὺ δὲ μᾶλλον τὴν οὐκ οὖσαν ἀνακτᾶσθαι. καὶ φιλόπολις οὗτος ὀρθῶς, οὐχ ὃς ἂν τὴν ἑαυτοῦ ἀδίκως ἀπολέσας μὴ ἐπίῃ, ἀλλ' ὃς ἂν ἐκ παντὸς τρόπου διὰ τὸ ἐπιθυμεῖν πειραθῇ αὐτὴν ἀναλαβεῖν. οὕτως ἔμοιγε ἀξιω ὑμᾶς καὶ ἐς κίνδυνον καὶ ἐς ταλαιπωρίαν πᾶσαν ἀδεῶς χρῆσθαι, ὦ Λακεδαιμόνιοι, γνόντας τοῦτον δὴ τὸν ὑφ' ἁπάντων προβαλλόμενον λόγον, ὡς εἰ πολέμιός γε ὢν σφόδρα ἔβλαπτον, κἂν φίλος ὢν ἱκανῶς ὠφελοίην, ὅσῳ τὰ μὲν Ἀθηναίων οἶδα τὰ δ' ὑπέτερα ἥκαζον."

III. Sketch the arguments used by Euphemus in his Speech to the Camarinæans in defence of Athenian interference in Sicily.

IV. Draw a Plan of Syracuse, showing the military works mentioned in the Sixth Book of Thucydides.

V. Translate—

Ὁ μὲν Νικίας τοσαῦτα παρακελευσάμενος εὐθὺς ἐκέλευε πληροῦν τὰς ναῦς. τῷ δὲ Γυλίππῳ καὶ τοῖς Συρακοσίοις παρῆν μὲν αἰσθά-

νεσθαι, ὁρῶσι καὶ αὐτὴν τὴν παρασκευήν, ὅτι ναυμαχήσουσιν οἱ Ἀθηναῖοι, προηγγέλθη δὲ αὐτοῖς καὶ ἡ ἐπιβολὴ τῶν σιδηρῶν χειρῶν, καὶ πρὸς τε τἆλλα ἐξηρτύσαντο ὡς ἕκαστα καὶ πρὸς τοῦτο τὰς γὰρ πρώρας καὶ τῆς νεὼς ἄνω ἐπὶ πολὺ κατεβύρσωσαν, ὅπως ἂν ἀπολισθάνοι, καὶ μὴ ἔχοι ἀντιλαβὴν ἡ χεὶρ ἐπιβαλλομένη. καὶ ἐπειδὴ ἑτοῖμα πάντα ἦν, παρεκελεύσαντο ἐκείνοις οἵ τε στρατηγοὶ καὶ Γύλιππος καὶ ἔλεξαν τοιάδε.

COMPOSITION.

PROFESSOR KELLY.

My business is simply to record actions and to report opinions. Characters must be always mixed; in the worst there is something to praise, if we would look for it; in the best there is much to blame, as every good man will admit. He who begins ill, may end well; and some who have begun well may fall from rectitude. Such changes of nature I shall note; but when I come to the end, I shall remember the words of Him who said, "Judge not."

LATIN PROSE.

Stephen would have been regarded by all men to have been most worthy of a crown, if he had not reigned. Of a kindly disposition, courteous to his equals, affable to his inferiors, he was popular and beloved; but he often wanted the ability to fulfil the promises which his inconsiderate good-nature was lavish in making; and his friends, disappointed, denounced him as insincere, and were frequently converted into enemies. His courage was indisputable, but it often amounted to rashness, and his chivalrous generosity, while, at one time, it rendered his conduct impolitic, was not sufficient on some occasions to prevent him from becoming cruel and unjust.

GRAMMAR.

I. What are the so-called Concords? What exceptions are found to them in Latin and Greek?

Explain "anacoluthon," and "historical infinitive."

II. Give the Attic forms of—

Κύνεσσιν, ἀποαίρεο, Κάππεσεν, εἰλήλουθας.

Which form is right:—εὐηργέτουν or ηὐεργέτουν:
ἠπιστάμην or ἐπιστάμην:
διηκόνουν or ἐδιακόνουν.

III. Distinguish οὔκοον and οὐκοῦν : κράτος and κρατός : ποιεῖν and πράττειν : and give the forces of ὕβρις and improbus.

IV. Derive ἑπτάβοιος, φροῦδος, παροιμία, fatum, grassator, farrago, sestertius.

V. Decline quis (indefinite), οὗ, πλέως.

VI. Account for the forms ἵστημι, τίθημι, δίδωμι.

VII. Give correlative adverbs of time, place, and manner, both in Greek and Latin.

VIII. Turn into the oratio obliqua—

Nobis nihil ultra adrogabo, quam ne post Valentem et Cæcinam numeremur. Ne tamen Mucianum socium spreveris, quia æmulum non experiris. Me Vitellio antepono, te mihi.

COMPARATIVE PHILOLOGY.

Mention the principal forms of Dynamic change in the Indo-European Languages, and quote some examples of each.

Analyse the following words etymologically—legitur—voco—εἴην—τίθεσαι—μεῖζον—optimus, and trace the Comparative and Superlative Suffixes in Greek and Latin to their originals.

Quote instances of the interchange of K, Π, and T in Greek and Latin. How may you account for such interchange?

ANCIENT HISTORY.

Write a short account of the Greek Despots, and the causes which led to their rise and overthrow.

Discuss the character of Tiberius as pourtrayed by Tacitus.

Give an account of the life and doings of Sejanus.

INORGANIC CHEMISTRY.

PROFESSOR TATE AND DR. CLELAND.

I. In chemical combination, what do you understand by the term "equivalent weights?" Illustrate your answer by examples.

II. Describe a delicate test for ozone in the air.

III. What law has been formulated with respect to the diffusive power of gases? Take oxygen and hydrogen as examples, and state their respective rates of penetration through a porous diaphragm separating two portions of these gases.

IV. How would you prepare nitrogen monoxide? What are the properties of this gas?

V. Describe a delicate test for nitric acid in a solution.

VI. Supposing equal weights of sal-ammoniac and quick lime are given you, how would you set about preparing a pure solution of ammonia?

VII. How may chlorine be obtained? What are its properties?

VIII. Describe the process for obtaining on a large scale sulphuric acid by the oxidation of sulphurous acid.

IX. How much carbonic acid gas by weight and volume can be obtained by burning 30 grammes of carbon?

X. Describe the structure of (*a*) the flame of an ordinary gas jet, (*b*) the same flame when acted upon by a blow-pipe blast.

XI. How would you show experimentally that boracic acid and silicic acid are weak acids under certain conditions and strong acids under other conditions?

ENGLISH LITERATURE.

MR. FLETCHER.

I. What are the general differences in diction between poetry and prose?

II. State and illustrate the various styles under which poetic writings may be classified.

III. What are the chief faults in style into which prose writers are apt to fall?

IV. What is the difference between a metaphor and a simile?

V. Show by quotations from "King Lear" that Shakespeare does not use prose and verse at random.

VI. In what metre are Shakespeare's plays written? Show by illustrations what variations in metre he allows himself.

VII. Give briefly the plot of "King Lear."

VIII. What are the difficulties that attend the formation of a correct text of this play?

IX. Explain the following passages :—

"World, world, O world,
But that thy great mutations make us hate thee;
Life would not yield to age" (Act iv. 1, 10).

Albany—"I fear your disposition:
That nature which contemns its origin
Cannot be bordered certain in itself:
She that herself will sliver and disbranch
From her material sap, perforce must wither
And come to deadly use" (Act iv. 2, 31).

"The wrathful skies
Gallow the very wanderers of the dark
And make them keep their caves."

X. Explain the grammatical peculiarities in the following lines :—

"Hide thee, thou bloody hand;
Thou perjured and *thou simular man* of virtue
That art incestuous" (Act iii. 2, 49).

Alack, bare-headed!
Gracious my Lord, hard by here is a hovel;
Some friendship will it lend you 'gainst the tempest;
Repose you there; while I to this hard house—
More harder than the stones whereof 'tis raised,
Which *even now*, demanding after you,
Denied me to come in—return and force
Their scanty courtesy.

XI. *Fool*—"She will taste as like this as a crab does to a crab." Is this altogether a correct estimate of the characters of Regan and Goneril?

XII. Criticise or justify the following remarks of Coleridge :—"Edgar's assumed madness serves the great purpose of taking off part of the shock which would otherwise be caused by the true madness of Lear, and further displays the profound difference between the two. In Edgar's ravings Shakespeare all the while lets you see a fixed purpose, a practical end in view; in Lear's there is only the brooding of the one anguish, an eddy without progression."

SECOND YEAR.

PURE MATHEMATICS I.

PROFESSOR LAMB.

I. When is an infinite series said to be *Convergent*, and when *Divergent?*

State the more important simple tests of convergency.

Prove that the series

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \text{\&c.},$$

is divergent.

II. Prove the Exponential Theorem; and calculate the value of e^2 correct to four places of decimals.

III. Sum the following series:

(i.) $1^3 + 2^3 + 3^3 + \ldots + n$;
(ii.) $1.2 + 2.5 + 3.10 + \ldots\ldots + n(n^2 + 1)$;
(iii.) $1 + 3x + 5x^2 + \ldots\ldots$to infinity, $[x < 1]$

IV. State and prove the rule for forming the successive convergents to the value of a continued fraction.

Prove that the odd convergents to the continued fraction

$$\frac{1}{a_1 +} \; \frac{1}{a_2 +} \; \frac{1}{a_3 +} \cdots$$

continually decrease, and that the even convergents continually increase.

If $\frac{p_4}{q_4}$, $\frac{p_5}{q_5}$ be the fourth and fifth convergents to the continued fraction

$$\frac{1}{1 +} \; \frac{1}{2 +} \; \frac{1}{3 +} \; \frac{1}{4 +} \cdots$$

express $\frac{q_4}{q_5}$ as a continued fraction.

V. Two rods each five feet long, and divided into 24 and 25 equal spaces respectively, are placed in longitudinal contact with their ends coincident. Prove that no two divisions are at a less distance than a tenth of an inch, and find what divisions are at this distance.

VI. What is the precise mathematical meaning of the word *Probability?*

State and prove the rule for finding the probability of the concurrence of two independent events whose separate probabilities are known.

Also state the rule when the two events are *not* independent.

Two numbers are written down at random; what is the chance that their product ends in 2?

VII. Prove the formulæ

(i.) $\sin \frac{A}{2} = \sqrt{\frac{1-\cos A}{2}}$;

(ii.) $\sin\left(45^\circ + \frac{A}{2}\right) = \sqrt{\frac{1+\sin A}{2}}$;

(iii.) $\sin A + \sin B + \sin C = 4 \cos\frac{A}{2} \cos\frac{B}{2} \cos\frac{C}{2}$,

where A, B, C, are the angles of a triangle.

VIII. Discuss the "ambiguous case" in the solution of triangles.

The lengths of the two sides a b of a triangle are 15,325 feet and 8,764 feet respectively, and the angle B is 33° 14′ 50″. Find, with the help of tables, the two possible lengths of the side c.

PURE MATHEMATICS II.

MR. BAKEWELL.

I. Show that when n is a positive integer

$$\text{Cos } n\,\theta = \cos^n\theta - \frac{n(n-1)}{1\cdot 2}\cos^{n-1}\theta \sin^2\theta + \frac{n(n-1)\,(n-2)\,(n-3)}{\lfloor 4}\cos^{n-4}\theta \sin^4\theta - \ldots\ldots$$

Deduce the expansion of cos α in powers of α, and show that the series is convergent.

II. Find the sum of n terms of the following series:

$$\tan x + \frac{1}{2}\tan\frac{x}{2} + \frac{1}{2^2}\tan\frac{x}{2^2} + \cdots + \frac{1}{2^{n-1}}\tan\frac{x}{2^{n-1}}.$$

Find the limit of the series when n is indefinitely diminished.

III. Resolve sin θ into factors.

Deduce an expression in factors for the approximate numerical value of π.

IV. Explain the various modes of determining the position of a point in a plane.

What is the locus of a point whose radius vector makes a constant angle with the initial line, and give its equation?

Transform the equation $\rho = a^2 \cos 2\theta$ from polar to rectangular co-ordinates.

Show how to transform an equation from trilinear to Cartesian co-ordinates.

V. Find the angle between two intersecting straight lines whose equations are given, the axes being rectangular.

Show that the two straight lines represented by the equation

$$ax^2 + 2\,bxy + cy^2 = 0$$

are at right angles if $a + c - 2\,b \cos \omega = 0$, ω being the inclination of the axes.

VI. Find the equation to a circle referred to polar co-ordinates.

Determine the magnitude and position of the circle whose equation is

$$\rho^2 - 2\rho\,(\cos\theta + \sqrt{3}\sin\theta) = 5.$$

VII. Find the condition that the general equation of the second degree may represent a parabola.

If the normals at two points on a parabola intersect on the curve, show that the chord joining the two points cuts the axis at a fixed point.

VIII. Find the equation to the chord of contact of tangents drawn from an external point to the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1.$$

Define the terms pole and polar, and show that a straight line through the pole is cut harmonically by the curve and polar.

IX. Find the equation to the tangent to an hyperbola referred to the asymptotes as co-ordinate axes.

Show that the tangent forms with the asymptotes a triangle of constant area.

X. Show that the equation to a conic in trilinear co-ordinates having the triangle of reference as a conjugate triad is

$$l\alpha^2 + m\beta^2 + n\gamma^2 = 0.$$

APPLIED MATHEMATICS I.

PROFESSOR LAMB.

I. Define the *Curve of Velocities* of a moving point, and state its chief properties.

Prove the formula for uniform acceleration :

$$s = ut + \tfrac{1}{2} ft^2.$$

Find the greatest height reached by a stone thrown vertically upwards with a velocity of 100 metres per second at the surface of the moon where $g = 150$. [C. G. S. units.]

II. State and explain the Second Law of Motion so far as is necessary for the treatment of rectilinear motion.

Why is the gravitational method of measuring forces unsuitable for scientific purposes ?

Three inches of rain fell in a certain district in twelve hours. Assuming that the drops fell from a height of a quarter of a mile, find the pressure on the ground per square inch of the district due to the rain during the storm : a cubic foot of water weighing 1,000 ozs.

III. Explain the method of calculating the motion of a projectile, neglecting the resistance of the air, and state clearly the fundamental principles on which the method rests.

Prove that the range of a projectile is $2uv/g$, where u,v are the initial horizontal and vertical velocities.

IV. A B is the range of a projectile on a horizontal plane. Shew that, if t be the time from A to any point P of the path, and t^1 the time from P to B, the vertical height of P above AB is $\frac{1}{2}gtt^1$.

V. Define the hodograph of a moving point ; state its chief properties ; and apply it to find the law of force in a circular orbit described with uniform velocity.

The string of a conical pendulum is 16 feet long, and makes an angle of 30° with the vertical ; what must be the velocity of the bob that it may describe an exact circle ?

VI. Explain carefully the effect of the earth's rotation in diminishing the apparent value of gravity.

Prove that at the equator the diminution is about $= 1/289.g$.

What would be the length of the day if the velocity of rotation were such that bodies at the Equator had *no* apparent weight ?

VII. Define the total momentum of a system resolved in a given direction, and prove that it is unaltered by any mutual actions between the parts of the system.

Explain carefully the principles on which problems of Impact are treated.

A ball of mass A impinges directly on another of mass B at rest; prove that the direction of A's motion will be reversed or not according as $A \lesseqgtr eB$, where e is the co-efficient of restitution.

VIII. Define the terms *Work* and *Energy*.

Prove that the kinetic energy of a body is measured by $\frac{1}{2}$ mass $\times$ (vel.)^2.

Find (geometrically or otherwise) the kinetic energy and the potential energy of a pendulum bob at any point of its path, and verify that their sum is constant.

APPLIED MATHEMATICS II.

MR. BAKEWELL.

I. State the parallelogram of forces, and prove it for the direction of the resultant of two commensurate forces.

Deduce the polygon of forces.

$ABCD$ and $A'B'C'D'$ are two parallelograms. Prove that the forces acting at a point parallel and proportional to AA' $B'B$ CC' $D'D$ will be in equilibrium.

II. Several forces in different directions in one plane act upon a point, what are the conditions that the point may remain at rest?

A weight of 20 tons resting on a rough horizontal plane is acted on by a force of 5 tons acting in a direction inclined at 30° to the horizon. Find how much of this force is expended in overcoming the resistance to horizontal motion, and what is the pressure on the ground?

If an additional force of 5 tons act on the above weight inclined at an angle of 60° to the horizon, how much will the pressure on the ground be altered?

III. State the law limiting the magnitude of statical friction between two given substances, and show how the co-efficient of friction may be determined ?

A heavy particle is attached to a point in a rough inclined plane by a fine rigid wire without weight, and rests on the plane with the wire inclined at an angle θ to a horizontal line in the plane. Determine the limits of θ, the angle of inclination of the plane being $\tan^{-1} \mu \sec \beta$.

IV. Prove that every system of material particles has a centre of gravity, and show how to determine its position.

Four weights are placed at four given points in space ; the sum of two of the weights is given, and also the sum of the other two, prove that their centre of gravity lies on a fixed plane.

V. Find the condition of equilibrium in the case of the system of pullies in which each hangs by a separate string, all the strings being vertical.

If W be the weight supported, and $w_1\ w_2 \ldots w_n$ the weights of the movable pullies, there will be no mechanical advantage unless

$$W - w_n + 2\,(W - w_{n-1}) + 2^2\,(W - w_{n-2}) + \ldots\ldots + 2^{n-1}\,(W - w_1) \text{ be positive.}$$

VI. Enunciate the principle of vertical velocities, and prove it in the case of a rigid body acted upon by forces in a plane.

VII. A quantity of heavy incompressible fluid is a rest. Show that the pressures at every point on a horizontal plane are equal.

If the vessel in which it is contained slide down a smooth inclined plane, find the direction of the surface of the fluid when at rest relative to the vessel.

VIII. Describe the diving bell, and find the portion free of water when it is sunk to a given depth supposing the bell cylindrical.

If such a bell of height a, and whose chamber would contain a weight w of water, be lowered so that the depth of the highest point is d, prove that when the temperature $T°$ is raised $t°$ the tension of the supporting chain is diminished by

$$\frac{1}{1+aT}\ \frac{What}{\sqrt{(h+d)^2+4ah}} \text{ nearly, } h \text{ being the height of}$$

the water barometer, a the expansion of air for one degree of heat.

IX. A solid floats on fluid (homogeneous or not). Find the conditions of rest.

Find the position of rest of a right cone floating on water with its base above the surface.

X. Describe the action of Smeaton's single-barrelled air-pump, and find the density of the air in the receiver after n strokes, having given the capacities of the receiver and the barrel.

Show that the upper valve opens when the piston is at a distance from the end of the stroke which is to the length as the pressure of air in the receiver to that of the atmosphere.

LATIN.

TACITUS.

PROFESSOR KELLY.

I. Translate—Nihil primo senatus die agi passus est nisi de supremis Augusti, cuius testamentum inlatum per virgines Vestae Tiberium et Liviam heredes habuit. Livia in familiam Iuliam nomenque Augustum adsumebatur ; in spem secundam nepotes pronepotesque, tertio gradu primores civitatis scripserat, plerosque invisos sibi, sed iactantia gloriaque ad posteros. legata non ultra civilem modum, nisi quod populo et plebi quadringentiens triciens quinquiens, praetoriarum cohortium militibus singula nummum milia, legionariis aut cohortibus civium Romanorum trecenos nummos viritim dedit. tum consultatum de honoribus ; ex quis qui maxime insignes visi, ut porta triumphali duceretur funus, Gallus Asinius, ut legum latarum tituli, victarum ab eo gentium vocabula anteferrentur, L. Arruntius censuere. addebat Messalla Valerius renovandum per annos sacramentum in nomen Tiberii ; interrogatusque a Tiberio num se mandante eam sententiam prompsisset, sponte dixisse respondit, neque in iis quae ad rem publicam pertinerent consilio nisi suo usurum, vel cum periculo offensionis : ea sola species adulandi supererat. conclamant patres corpus ad rogum umeris senatorum ferendum. remisit Caesar adroganti moderatione, populumque edicto monuit ne, ut quondam nimiis studiis funus divi Iulii turbassent, ita Augustum in foro potius quam in campo Martis, sede destinata, cremari vellent. die funeris milites velut praesidio stetere, multum inridentibus qui ipsi viderant quique a parentibus acceperant diem illum crudi adhuc servitii et libertatis inprospere repetitae, cum occisus dictator Caesar aliis pessimum, aliis pulcherrimum facinus

videretur: nunc senem principem, longa potentia, provisis etiam heredum in rem publicam opibus, auxilio scilicet militari tuendum, ut sepultura eius quieta foret.

Criticize the text, and write explanatory notes on the passage beginning "legata non ultra."

II. Translate—Isdem temporibus deum aedes vetustate aut igni abolitas coeptasque ab Augusto dedicavit, Libero Liberaeque et Cereri iuxta circum maximum, quam A. Postumius dictator voverat, eodemque in loco aedem Florae ab Lucio et Marco Publiciis aedilibus constitutam, et Iano templum, quod apud forum holitorium C. Duilius struxerat, qui primus rem Romanam prospere mari gessit triumphumque navalem de Poenis meruit. Spei aedes a Germanico sacratur: hanc A. Atilius voverat eodem bello.

Adolescebat interea lex maiestatis. et Appuleiam Varillam, sororis Augusti neptem, quia probrosis sermonibus divum Augustum ac Tiberium et matrem eius inlusisset Caesarique conexa adulterio teneretur, maiestatis delator arcessebat. de adulterio satis caveri lege Iulia visum: maiestatis crimen distingui Caesar postulavit damnarique, si qua de Augusto inreligiose dixisset: in se iacta nolle ad cognitionem vocari. interrogatus a consule, quid de iis censeret quae de matre eius locuta secus argueretur, reticuit; dein proximo senatus die illius quoque nomine oravit, ne cui verba in eam quoquo modo habita crimini forent. liberavitque Appuleiam lege maiestatis: adulterii graviorem poenam deprecatus, ut exemplo maiorum propinquis suis ultra ducentesimum lapidem removeretur suasit. adultero Manlio Italia atque Africa interdictum est.

Give a short account of the historical personages here mentioned.

JUVENAL.

Mr. Halcomb.

I. Translate, with short notes if needed—

Pars magna Italiae est, si verum admittimus, in qua
Nemo togam sumit, nisi mortuus. Ipsa dierum
Festorum herboso colitur si quando theatro
Majestas, tandemque redit ad pulpita notum
Exodium, quum personae pallentis hiatum
In gremio matris formidat rusticus infans;

Aequales habitus illic similesque videbis
Orchestram et populum : clari velamen honoris,
Sufficiunt tunicae summis Aedilibus albe.
Hic ultra vires habitus nitor : hic aliquid plus,
Quam satis est, interdum aliena sumitur arca.
Commune id vitium est. Hic vivimus ambitiosa
Paupertate omnes. Quid te moror? Omnia Romae
Cum pretio. Quid das, ut Cossum aliquando salutes?
Ut te respiciat clauso Veiento labello?

Nec tamen ipsi
Ignoscas populo; populi frons durior hujus,
Qui sedet et spectat triscurria patriciorum,
Planipedes audit Fabios, ridere potest qui
Mamercorum alapas. Quanti sua funera vendant,
Quid refert? Vendunt nullo cogente Nerone,
Nec dubitant celsi praetoris vendere ludis.
Finge tamen gladios inde, atque hinc pulpita pone:
Quid satius? Mortem sic quisquam exhorruit, ut sit
Zelotypus Thymeles, stupidi collega Coriuthi?
Res haud mira tamen, citharoedo Principe, mimus
Nobilis. Haec ultra quid erit, nisi ludus? Et illud
Dedecus Urbis habes: nec mirmillonis in armis,
Nec clypeo Gracchum pugnantem, aut falce supina,
(Damnat enim tales habitus; et damnat et odit;
Nec galea frontem abscondit:) movet ecce tridentem,
Postquam vibrata pendentia retia dextra
Nequidquam effudit. Nudum ad spectacula vultum
Erigit, et tota fugit agnoscendus arena.

II. Translate and explain—

1. Rusticus ille tuus sumit trechedipna, Quirine,
Et ceromatico fert niceteria collo.

2. Stoicus occidit Baream, delator amicum,
Discipulumque senex.

3. Sed periit postquam cerdonibus esse timendus
Coeperat: hoc nocuit Lamiarum caede madenti.

4. Tu scabie frueris mali, quod in aggere rodit,
Qui tegitur parma et galea metuensque flagelli
Discit ab hirsuta jaculum torquere capella.

5. Sic Pedo conturbat, Matho deficit.

III. Give the meaning of these words and phrases :—

opici mures — sportula — verso pollice—res fisci — dimidia brevior—genuinum.

IV. Illustrate by quotation—

a. Ipse Venafrano piscem perfundit.

b. Nullus tibi parvulus aula
Luserit Æneas.

c. Satur est quum dicit Horatius Euoe.

V. Mention some of the articles of dress alluded to by Juvenal.

VI. Contrast Juvenal with Horace as a satirist.

GREEK.

AJAX.

MR. HALCOMB.

I. ξύμφημι δή σοι καὶ δέδοικα μὴ 'κ θεοῦ πληγή τις ἥκει.
"ἥκει, Ven. ἥκῃ, Jen. ἥκοι, reliqui."
State the effect of these different readings.

II. Translate

ΑΙΑΣ. ὁ μὲν σφαγεὺς ἕστηκεν ᾗ τομώτατος
γένοιτ' ἄν, εἴ τῳ καὶ λογίζεσθαι σχολὴ,
δῶρον μὲν ἀνδρὸς Ἕκτορος ξένων ἐμοὶ
μάλιστα μισηθέντος ἐχθίστου θ' ὁρᾶν·
πέπηγε δ' ἐν γῇ πολεμίᾳ τῇ Τρῳάδι,
σιδηροβρῶτι θηγάνῃ νεακονής·
ἔπηξα δ' αὐτὸν εὖ περιστείλας ἐγὼ,
εὐνούστατον τῷδ' ἀνδρὶ διὰ τάχους θανεῖν.
οὕτω μὲν εὐσκευοῦμεν· ἐκ δὲ τῶνδέ μοι
σὺ πρῶτος, ὦ Ζεῦ, καὶ γὰρ εἰκὼς, ἄρκεσον.
αἰτήσομαι δέ σ' οὐ μακρὸν γέρας λαχεῖν.
πεμψόν τιν' ἡμῖν ἄγγελον, κακὴν φάτιν
Τεύκρῳ φέροντα, πρῶτος ὥς με βαστάσῃ
πεπτῶτα τῷδε περὶ νεορράντῳ ξίφει,
καὶ μὴ πρὸς ἐχθρῶν του κατοπτευθεὶς πάρος
ῥιφθῶ κυσὶν πρόβλητος οἰωνοῖς θ' ἕλωρ.

τοσαῦτά σ', ὦ Ζεῦ, προστρέπω· καλῶ θ' ὅμα
πομπαῖον Ἑρμῆν χθόνιον εὖ με κοιμίσαι
ξὺν ἀσφαδάστῳ καὶ ταχεῖ πηδήματι
πλευρὰν διαρρήξαντα τῷδε φασγάνῳ.

Illustrate from the Latin poets this office of Ἑρμῆς ψυχοπομπός.

III. Translate

ΧΟ. οὐδ' αὖ τοιαύτην γλῶσσαν ἂν κακοῖς φιλῶ.
τὰ σκληρὰ γάρ τοι, κἂν ὑπέρδικ' ᾖ, δάκνει.
ΜΕ. ὁ τοξότης ἔοικεν οὐ σμικρὸν φρονεῖν.
ΤΕΥ. οὐ γὰρ βάναυσον τὴν τέχνην ἐκτησάμην.
ΜΕ. μέγ' ἄν τι κομπάσειας, ἀσπίδ' εἰ λάβοις.
ΤΕΥ. κἂν ψιλὸς ἀρκέσαιμι σοί γ' ὡπλισμένῳ.
ΜΕ. ἡ γλῶσσά σου τὸν θυμὸν ὡς δεινὸν τρέφει.
ΤΕΥ. ξὺν τῷ δικαίῳ γὰρ μέγ' ἔξεστιν φρονεῖν.
ΜΕ. δίκαια γὰρ τόνδ' εὐτυχεῖν κτείναντά με;
ΤΕΥ. κτείναντα; δεινόν γ' εἶπας, εἰ καὶ ζῇς θανών.
ΜΕ. θεὸς γὰρ ἐκσώζει με, τῷδε δ' οἴχομαι.

IV. Translate

ἦ ῥά σε Ταυροπόλα Διὸς Ἄρτεμις,
ὦ μεγάλα φάτις, ὦ
μᾶτερ αἰσχύνας ἐμᾶς,
ὥρμασε πανδάμους ἐπὶ βοῦς ἀγελαίας
ἤ πού τινος νίκας ἀκάρπωτον χάριν,
ἤ ῥα κλυτῶν ἐνάρων
ψευσθεῖσ', ἀδώροις εἴτ' ἐλαφηβολίαις;
ἢ χαλκοθώραξ ἤ τιν' Ἐννάλιος
μομφὰν ἔχων ξυνοῦ δορὸς ἐννυχίοις
μαχαναῖς ἐτίσατο λώβαν;
οὔ ποτε γὰρ φρενόθεν γ' ἐπ' ἀριστερὰ,
παῖ Τελαμῶνος, ἔβας
τόσσον ἐν ποίμναις πίτνων·
ἦκοι γὰρ ἂν θεία νόσος· ἄλλ' ἀπερύκοι
καὶ Ζεὺς κακὰν καὶ Φοῖβος Ἀργείων φάτιν.
εἰ δ' ὑποβαλλόμενοι
κλέπτουσι μύθους οἱ μεγάλοι βασιλῆς,
ἢ τᾶς ἀσώτου Σισυφιδᾶν γενεᾶς,
μὴ μή μ', ἄναξ, ἔθ' ὧδ' ἐφάλοις κλισίαις
ὄμμ' ἔχων κακὰν φάτιν ἄρῃ.
ἀλλ' ἄνα ἐξ ἑδράνων, ὅπου μακραίωνι
στηρίζει ποτὲ τῷδ' ἀγωνίῳ σχολᾷ
ἄταν οὐρανίαν φλέγων. ἐχθρῶν δ' ὕβρις
ἀτάρβητος ὁρμᾶται

ἐν εὐανέμοις βάσσαις,
ἀπάντων καχαζόντων
γλώσσαις βαρυαλγήτως·
ἐμοί δ' ἄχος ἔστακεν.

The στροφὴ begins with ἦ ῥά: mark the beginning of the ἀντιστροφὴ and ἐπῳδός.

V. "Ἡ σκηνὴ τοῦ δράματος ἐν τῷ ναυστάθμῳ πρὸς τῇ σκηνῇ τοῦ Αἴαντος· δαιμονίως δὲ εἰσφέρει προλογίζουσαν τὴν Ἀθηνᾶν."

Explain this, and the use of the πρόλογος made by the Dramatists.

PROFESSOR KELLY.

J. Translate

δῶρα δ' ἄγ' ἀλλήλοισι περικλυτὰ δώομεν ἄμφω,
ὄφρα τις ὧδ' εἴπῃσιν Ἀχαιῶν τε Τρώων τε
'ἦμὲν ἐμαρνάσθην ἔριδος πέρι θυμοβόροιο,
ἠδ' αὖτ' ἐν φιλότητι διέτμαγεν ἁρθμήσαντε'."
Ὣς ἄρα φωνήσας δῶκε ξιφος ἀργυρόηλον,
σύν κολεῷ τε φέρων καὶ ἐϋτμήτῳ τελαμῶνι·
Αἴας δὲ ζωστῆρα δίδου φοίνικι φαεινόν.
τὼ δὲ διακρινθέντε ὁ μὲν μετὰ λαὸν Ἀχαιῶν
ἦϊ, ὁ δ' ἐς Τρώων ὅμαδον κίε. τοί δ' ἐχάρησαν,
ὡς εἶδον ζωόν τε καὶ ἀρτεμέα προσιόντα,
Αἴαντος προφυγόντα μένος καὶ χεῖρας ἀάπτους·
καὶ ῥ' ἦγον προτὶ ἄστυ, ἀελπτέοντες σόον εἶναι.
Αἴαντ' αὖθ' ἑτέρωθεν ἐϋκνήμιδες Ἀχαιοὶ
εἰς Ἀγαμέμνονα δῖον ἄγον, κεχαρηότα νίκῃ.

II. Translate

(α) ΘΕΑΙ. Ὅσαι μὲν γραμμαὶ τὸν ἰσόπλευρον καὶ ἐπίπεδον ἀριθμὸν τετραγωνίζουσι, μῆκος ὡρισάμεθα, ὅσαι δὲ τὸν ἑτερομήκη, δυνάμεις, ὡς μήκει μεν οὐ ξυμμέτρους ἐκείναις, τοῖς δ' ἐπιπέδοις ἃ δύνανται. καὶ περὶ τα στερεὰ ἄλλο τοιοῦτον.

How is this passage connected with the subject of the Theaetetus?

(β) ΕΩ. Ἐξ ἁπάντων ἄρα ἀπὸ Πρωταγόρου ἀρξαμένων ἀμφισβητήσεται μᾶλλον δὲ ὑπὸ γὲ ἐκείνου ὁμολογήσεται, ὅταν τῷ τἀναντία λέγοντι ξυγχωρῇ ἀληθῆ αὐτὸν δόξαζειν, τότε καὶ ὁ Πρωταγόρας αὐτὸς ξυγχωρήσεται μήτε κύνα μήτε τὸν ἐπιτυχόντα ἄνθρωπον μέτρον εἶναι μηδὲ περὶ ἑνὸς οὗ ἂν μὴ μάθῃ. οὐχ οὕτως;

Give the substance of the reasoning which leads to this result.

(γ) ΣΩ. Οὕτω μέντοι χρή, ὦ Θεαίτητε, λέγειν προθύμως μᾶλλον, ἢ ὡς τὸ πρῶτον ὤκνεις ἀποκρίνεσθαι. ἐὰν γαρ οὕτω δρῶμεν, δυοῖν θάτερα, ἢ εὑρήσομεν ἐφ' ὃ ἐρχόμεθα, ἢ ἧττον οἰησόμεθα εἰδέναι ὃ μηδαμῇ ἴσμεν. καί τοι οὐκ ἂν εἴη μεμπτὸς μισθὸς ὁ τοιοῦτος. καὶ δὴ καὶ νῦν τί φῄς; δυοῖν ὄντοιν εἰδέοιν δόξης, τοῦ μὲν ἀληθινου, ψευδοῦς δὲ τοῦ ἑτέρου, τὴν ἀληθῆ δόξαν ἐπιστήμην ὁρίζει;

How is this theory discussed?

(δ) ΣΩ. Τὸ μὲν πρῶτον εἴη ἂν τὸ τὴν αὑτοῦ διάνοιαν ἐμφανῆ ποιεῖν διὰ φωνῆς μετὰ ῥημάτων τε καὶ ὀνομάτων, ὥσπερ εἰς κάτοπτρον ἢ ὕδωρ τὴν δόξαν ἐκτιποῦμενον εἰς τὴν διὰ τοῦ στόματος ῥοήν. ἢ οὐ δοκεῖ σοι τὸ τοιοῦτον λόγος εἶναι;

What were the other two?

Shew in Plato's own words what was the object to be gained by enquiries ending like the Theaetetus.

COMPOSITION.

Same as in First Year.

CHEMISTRY.

DR. CLELAND.

I. Describe the method of preparing potassium chlorate on a commercial scale.

II. How is common alum prepared? What is the constitution of this salt?

III. How would you prepare mercuric chloride and mercurous chloride respectively from mercuric sulphate and common salt?

IV. What tests would you employ for the detection of copper in solution?

V. Describe Marsh's test for the presence of arsenic in solution.

VI. A compound of hydrogen and nitrogen was found to possess the following percentage composition, calculate its formula—

Nitrogen	82·353
Hydrogen	17·647
	100·000

VII. How many pounds of oxygen could you obtain from 255·4 lbs. of potassium chlorate?

K = 39·1 C = 35·5 O = 16.

VIII. What is an alcohol? In what relation does an aldehyde and an acid stand to it? Take ethyl alcohol as an illustration.

IX. Describe the "continuous etherification process."

X. What is the chemical nature of glycerine? How is it obtained?

XI. How is potassium ferrocyanide prepared on a large scale?

XII. What is the action of strong sulphuric acid and strong nitric acid on cellulose respectively?

DEDUCTIVE LOGIC.

MR. PATON.

I. State and criticise the various definitions of Logic known to you.

II. Explain and illustrate the various kinds of terms. What is meant by the denotation and connotation of a term.

III. State the causes that produce ambiguity in terms; give illustrations. Explain the ambiguity in any of the following terms—School, subject, object, letter, interest.

IV. State Mill's objections to the categories of Aristotle. What would he substitute for them?

V. Define a proposition. How are propositions classified?

VI. Discuss and illustrate by diagram the relations of the four cardinal propositions to each other.

VII. What is the meaning of the conversion of propositions?

VIII. What are the primary laws of thought, and the axioms on which they are based?

IX. What are the rules of a valid syllogism? What rules are broken by AJA, IOI, AEI?

X. "The members of a board were all of them either bondholders or shareholders, but not both, and the bondholders, as it happened, were all on the board." From the premises what conclusion can be drawn?

XI. What is meant by quantifying the predicate? what are the advantages that are to be gained therefrom? Write out in Hamilton's notation the moods—Barbara, Darii, Darapti, Camestres, Disamis.

XII. What use does Jevons make of the quantification of the predicate in his symbolic notation. Explain briefly his system.

THIRD YEAR.

PHYSICS I.

PROFESSOR LAMB AND MR. FLETCHER.

I. Define the terms *Magnetic Potential* and *Line of Force.*

Explain the method of delineating the forms of the lines of force in the neighbourhood of a magnet by means of iron filings.

When the card or other support on which the filings are strewn is tapped, how do the individual particles of iron move?

II. Define the term *Intensity of Magnetization*, and show by diagrams the distribution of the magnetization in an ordinary bar magnet. Also explain this distribution.

III. Give an outline of the experiments by which Gauss verified the fundamental law of magnetic action.

State precisely how you would compare the magnetic moments of two given magnets.

IV. State what you know as to the laws of distribution of electricity in conductors; and explain the peculiar action of points.

A needle sharpened at both ends is attached to an ebonite handle, and on one end being presented to a charged insulated sphere the charge is withdrawn; explain this action.

It has been proposed on the strength of this experiment to place a horizontal *insulated* copper rod, with both ends pointed and turned upwards, above the roofs of buildings to protect them from lightning. Point out the fallacy in this proposal.

V. Describe the essential parts of Thomson's Portable Electrometer, and explain the method of using it.

VI. Define the *Capacity* of a Conductor, and the *Specific Inductive Capacity* of a Dielectric.

The capacity of an insulated sphere when near the wall of a room is greater than if it were in the centre of the room; why?

VII. Describe the method of experimenting with the *Electric Cage*, and state what fundamental facts in electricity can be demonstrated in this way.

VIII. An insulated metal lamp is connected to an electrometer; what will be the nature of the indication of the latter when an ordinary Plate Electrical Machine is worked in another part of the room? Give a full explanation.

IX. Describe, and explain the action of, the Electrophorus.

Also describe and explain some contrivance for repeating automatically, in regular cyclical order, operations equivalent to those performed in the ordinary use of the electrophorus.

PHYSICS II.

PROFESSOR LAMB AND MR. FLETCHER.

I. State Ohm's Law, and define the term *Resistance*.

What is the standard of resistance in common use?

Describe the arrangement of the coils in an ordinary Resistance Box.

II. Calculate the resistance of a system of conductors arranged "in multiple arc."

Find in what ratio the indications of a galvanometer whose resistance is 100 ohms are reduced by the use of a shunt whose resistance is 50 ohms.

III. State precisely the laws of the mutual mechanical actions of magnets and electric currents.

Describe Ampère's experiment proving that "parallel currents attract one another," and show how it comes under the above-mentioned laws.

IV. Describe the Tangent-Galvanometer, and prove the property which gives rise to the name.

What is the most essential quality to be aimed at in the construction of this instrument, and how is it best secured?

V. State concisely the laws respecting the induction of electric currents.

What is meant by the self-induction of a coil, and how may the self-induction current be made manifest on breaking the battery connections?

VI. Describe carefully the construction and action either (1) of the Induction Coil, or (2) of a Dynamo-Electric Machine.

VII. State what is meant by *Electrolytic Polarization*, and describe experiments in demonstration of this phenomenon.

Describe some "constant" form of voltaic cell, and explain fully why it is constant.

Describe and explain the action of the "secondary batteries" of Planté and Faure.

VIII. One end of a submarine cable is put to earth, and the other connected with the positive pole of a battery, the negative pole of which is to earth. Describe fully the electrical condition of the several parts of the cable.

LATIN } Same as in Second Year.
GREEK }

COMPOSITION, &c., Same as in First Year.

GEOLOGY I.

PROFESSOR TATE.

I. Account for the existence of our Salt Lakes.

II. Show by a table the range in time of the families and chief genera of Palliobranchs.

III. Draw up a table of the Sedimentary Rocks of Australia, and annex the chief areas occupied by each, and a list of their characteristic fossils.

IV. Give an account of Faults in Strata, with illustrations.

V. Explain the relations between the geological structure and the Physical Geography of the County of Adelaide.

VI. Describe the usual Rock-structure in argillaceous, calcareous, and arenaceous strata, defining original and superinduced conditions.

VII. Discuss the question of the probability of the occurrence of coal in South Australia.

VIII. State the range in time of each of the following genera :—*Ichthyosaurus, Phacops, Calamites, Voluta, Graptolithus, Nautilus, Salenia, Pleurotomaria, Trigonia, Pholadomya, Conus*, and *Bellerophon*.

GEOLOGY II.

PROFESSOR TATE.

I. Name the rocks specimens placed before you.

II. Determine the genera of the accompanying fossils, and name the formations which they respectively characterise.

III. A copper lode courses N 10° E on a level country, its dip is 30° in an easterly direction, where should a shaft be sunk to strike the lode at a depth of 1,000 feet? Illustrate by diagram also.

IV. From the annexed geological plan, construct a horizontal section, from A to B, on a horizontal scale of three inches to two miles and a vertical of one inch to 400 feet.

MINERALOGY.

PROFESSOR TATE.

I. What are the characters of the systems of crystallography?

II. Draw a regular octahedron two inches high.

III. Describe Silica and its varieties.

IV. What are the resemblances and differences between Calcite, Aragonite, Dolomite, Siderite, and Magnesite?

V. Give the mineralogical characters of Garnet, Mica, Selenite, and Iron pyrites.

VI. How would you identify the following minerals by the blow-pipe:—Galena, Celestine, Antimonite, Iron pyrites, and Malachite?

VII. Name the mineral species on the table.

VIII. Under what different conditions does calcic carbonate occur in nature?

IX. Give an account of the chief kinds of pseudomorphosis of minerals.

ZOOLOGY AND COMPARATIVE ANATOMY.

DR. STIRLING.

[*N.B.—Candidates are not expected to answer all the questions.*]

I. What are the chief differences between the lowest forms of plants and animals? How far is the presence of Chlorophyll to be taken as a point of distinction between the two kingdoms?

II. Describe the structure and modes of reproduction of the *Spongida*.

III. Compare and contrast (1) the cranium and brain, (2) the hand and foot of Man with the corresponding parts of the Anthropoid apes.

IV. What are the general characters which distinguish the order *Marsupialia*? Point out its geographical distribution.

V. Describe the poison apparatus of a venomous snake and the rattle of a rattlesnake. How is the order *Ophidia* classified? Point out in a general way the poisonous groups.

VI. Enumerate and describe the component parts of the external covering of a Lobster, including the appendages.

VII. Give an account of the Respiratory organs in each of the classes of Vertebrata, pointing out the differences which exist in each class.

Frogs can live for a considerable time after extirpation of the lungs: how do you account for this?

VIII. Describe the stomach of a Ruminant, and point out in what respects it differs from that of a carnivorous animal. How do you account for any differences that may exist? Describe the mechanism by which the camel is able to store up a quantity of water.

IX. Write a short account of some peculiarities in the fauna of Australia, Tasmania, and New Zealand.

X. Describe the processes included in the theories of Parthenogenesis, and of the so-called Alternation of generations. Give examples of each process, and state any objections that have been urged against the latter theory.

BOTANY.

PROFESSOR TATE.

I. How are grasses (*Gramineae*) distinguished from other Orders, and what are the most useful plants of the Order?

II. Describe the common buttercup (*Ranunculus lappaceus*), and distinguish between the genera *Ranunculus*, *Clematis*, and *Myosurus*.

III. What are the characters of the *Order Primulaceae* in reference to (a) calyx, (b) corolla, (c) stamens, (d) ovary, and (f) placenta? Explain the theory of the peculiar position of the stamens; making reference to any indigenous plant in elucidation thereof.

IV. Give the characters of the larger subdivisions of Phanerogamia; and name under each some of the principal orders of South Australian plants.

V. Describe the general appearances presented by a transverse section of a leaf.

VI. What is a bract? State the several modifications which bracts may assume.

PRACTICAL BIOLOGY.

PROFESSOR TATE AND DR. STIRLING.

I. Examine under the microscope the preparations (1—4); describe them, and give an opinion as to the nature of each one.

II. Remove the lingual ribbon of the Slug provided and place it beneath the microscope.

III. Fill up the accompanying schedules with reference to the two plants placed before you.

IV. Refer the Zoological specimens (1—12) to their respective classes and orders.

V. Determine the genera and species of the accompanying six native plants.

INDUCTIVE LOGIC.

MR. PATON.

I. Define and distinguish Deduction, Induction, and Traduction.

II. What is the fundamental axiom on which the Inductive method rests?

III. Show how the improper inductions specified by Mill violate the conditions of valid induction.

IV. Enumerate and explain the different methods of Induction.

V. Supposing that we were entirely unacquainted with the causes which produce the following phenomena, by what methods should we investigate each:

a. The connection between the spots on the sun's face and the occurrence of famines in India?

b. Vaccination as a preservative against smallpox?

c. The beneficial or injurious effects of protection on the prosperity of a country?

VI. Distinguish between the cause, the occasion, and the antecedent of an event.

VII. What can you infer from the following instances:

Antecedents.		Consequents.
ABDE.	——	s.t.q.r.
BFG.	——	v.q.u.
BCD	——	q.s.m.
ADE.	——	t,s.r.
B.H.K.	——	z.q.w.
A.B.F.G.	——	r.q.u.v.
A.B.E.	——	rqt.

VIII. State the objects, classes, and conditions of valid hypotheses.

IX. Enumerate the fallacies to which the Inductive Reasoner is exposed. Give examples of each.

X. Explain briefly Jevon's system of logical symbols, and show how the fallacies arise from four terms—negative premises, undistributed middle, and an illicit process of the major term, are easily detected.

DECEMBER, 1881.

MATRICULATION EXAMINATION.

ARITHMETIC AND ALGEBRA.

PROFESSOR LAMB.

I. Reduce 31 million seconds to days, hours, &c.

II. On a certain line of railway the telegraph posts are placed 58 yards apart, and a passenger counts as he passes 37 in two minutes; at what rate is he travelling?

III. Multiply ·02019 by 52·03, and divide ·04312 by ·0044.

Give the reasons for the rules by which you fix the position of the decimal point in your results.

IV. Find the cost of a copper wire, of sectional area ·25 of a square inch, which is to reach from Niagara to New York, a distance of 300 miles; having given that a cubic foot of copper weighs 552 lbs., and that the price is £70 per ton.

V. Two men, A and B, working alone, can finish a piece of work in 9 hours and 8 hours respectively: if they work at it for an hour alternately, A beginning, in how many hours will the work be finished?

VI. A man buys 6 per cent. foreign stock at 50, and sells out at the end of the year when the stock has fallen to 48; what does he gain per cent. on the transaction?

VII. Prove that

$$ab = ba,$$

and that

$$a - (b - c) = a - b + c.$$

If $\frac{2a}{3} = \frac{3b}{4} = \frac{4c}{5} = 1$, find the numerical value of $(7a - 9b)^2 + (14b - 16c)^2 + (9a - 12c)^2$.

VIII. Find the co-efficient of x^5 in the product of

$$(1-x)^2 \text{ by } 1+2x+3x^2+4x^3+5x^4.$$

IX. Give the reason of the rule for addition of fractions.

Simplify

$$\frac{(x+1)^3-(x-1)^3}{(x+1)^2-(x-1)^2},$$

and prove that the sum of

$$\frac{1}{(x-2)(x-1)x(x+1)} \text{ and } \frac{1}{(x-1)x(x+1)(x+2)} \text{ is } \frac{2}{x^4-5x^2+4}$$

X. Solve the equations

(i) $$\frac{3x+1}{13}-\frac{2x+1}{3}=\frac{4x-1}{15}-\frac{5x+1}{7}$$

(ii) $$ax+b(b-a-x)+c(a-b)=0$$

XI. A man has £1,583 17s. 11d. in 3 per cent. stock, and £982 12s. 6d. in $3\frac{1}{2}$ per cent. stock; he transfers a certain sum from the former to the latter when the stocks are at 91 and 98 respectively, and thus makes the income derived from each the same. How much has he finally in 3 per cent. stock?

GEOMETRY.

PROFESSOR LAMB.

I. ABC is a triangle, and the angle at A is equal to the angle at B; prove that the triangle is isosceles.

II. AB is a straight line, and P,Q are two points on the same side of AB; prove that we cannot have $PA=QA$ and $PB=QB$ simultaneously.

Prove also that if the above conditions hold when P, Q are on *opposite* sides of AB, then PQ is perpendicular to AB.

III. The triangles PQR, XYZ have $PQ=XY$, and $PR=XZ$, but the angle at P is greater than the angle at X; prove that QR is greater than YZ.

IV. The three angles of any triangle are together equal to two right angles.

Find the number of degrees in the angle of a regular polygon of twenty sides.

V. Prove that the diagonals of a parallelogram bisect one another. Also state and prove the converse of this theorem.

VI. The square on the hypothenuse of a right-angled triangle is equal to the sum of the squares on the other two sides.

Make a square which shall be the treble of a given square.

VII. P is any point in a straight line AB; prove that the rectangle AP, AB is equal to the square on AP together with the rectangle AP, PB.

Hence prove that the square on AB is equal to the squares on AP, PB, together with twice the rectangle AP, PB.

VIII. "In any triangle the square on the side opposite an acute angle is equal to &c." Complete the enunciation, and prove the theorem.

What form does the proposition assume when the acute angle in question is infinitely small?

NATURAL PHILOSOPHY.

PROFESSOR LAMB.

I. Define the terms *Velocity, Force, Acceleration.*

A certain force can just support a mass of 25 lbs. Find the velocity generated in eight seconds from rest, when the same force acts on a mass of 10 lbs.

II. Distinguish carefully between the two senses in which the word "weight" is popularly used.

III. State the proportion known as the Triangle of Forces, and apply it to find the relation between the "power" and the "weight" in the case of a smooth inclined plane, the power acting horizontally.

The height of an inclined plane is 5 feet and its base is 12 feet; find the power necessary to support a mass of 50 lbs. when the power acts (i.) horizontally, and (ii.) parallel to the inclined plane.

IV. Explain what is meant by Stable, Unstable, and Neutral Equilibrium respectively. Give illustrations.

A uniform plank, whose length is 12 feet and weight 48 lbs., rest on two supports, one at an end, the other 8 feet from that other end. Find the greatest weight which can be placed on the unsupported end without upsetting the plank.

V. What is the fundamental property of a fluid?

Prove that the difference of the pressures at two points of a liquid in the same vertical line is proportional to the distance between them.

Find in lbs. per square inch the pressure at a depth of a mile in the sea. [Specific gravity of sea-water = 1·025; weight of a cubic foot of water = 62 lbs.]

VI. State Boyle's law of gaseous pressure, and explain an experimental method of verification.

VII. Describe simple experiments demonstrating the expansion of solids, liquids, and gases (respectively) under the influence of heat.

State any cases you know of substances *contracting* as the temperature rises.

VIII. Explain what is meant by *Conduction*, *Convection*, and *Radiation* of heat respectively.

Describe an experiment illustrating the differences in conducting power between different metals.

LATIN.

PROFESSOR KELLY.

I. Translate—

Faciam ut potero, Laeli. Saepe enim interfui querelis aequalium meorum—pares autem, vetere proverbio, cum paribus facillime congregantur—quae C. Salinator, quae Sp. Albinus, homines Consulares nostri fere aequales deplorare solebant, tum quod voluptatibus carerent sine quibus vitam nullam putarent, tum quod spernerentur ab iis a quibus essent coli soliti. Qui mihi non id videbantur accusare quod esset accusandum. Nam si id culpa senectutis accideret, eadem mihi usu venirent reliquisque omnibus majoribus natu, quorum ego multorum cognovi senectutem sine querela, qui se et libidinum vinculis laxatos esse non moleste ferrent nec a suis despice-

rentur. Sed omnium istuismodi querelarum in moribus est culpa, non in aetate. Moderati enim et nec difficiles nec inhumani senes tolerabilem senectutem agunt; importunitas autem et inhumanitas omni aetati molesta est. 8. LAEL. Est, ut dicis, Cato; sed fortasse dixerit quispiam tibi propter opes et copias et dignitatem tuam tolerabiliorem senectutem videri, id autem non posse multis contingere. CATO. Est istuc quidem, Laeli, aliquid, sed nequaquam in isto sunt omnia. Ut Themistocles furtur Seriphio cuidam in jurgio respondisse, quum ille dixisset non eum sua sed patriae gloria splendorem assecutum: Nec hercule, inquit, si ego Seriphius essem, nobilis, nec tu, si Atheniensis esses, clarus unquam fuisses.

State the rule for the use of the reflexive pronoun in Latin, and turn into "oratio recta" the sentence "non eum sua sed patriae gloria splendorem assecutum," and into "oratio obliqua" the sentence beginning, "nam si id culpa senectutis" to "despicerentur."

II. Translate—

Saepe audivi a majoribus natu, qui se porro pueros a senibus audisse dicebant, mirari solitum C. Fabricium quod, quum apud regem Pyrrhum legatus esset, audisset a Thessalo Cinea, esse quendam Athenis qui se sapientem profiteretur, eumque dicere omnia quae faceremus ad voluptatem esse referenda; quod ex eo audientes M'. Curium et T. Coruncanium optare solitos ud id Samnitibus ipsique Pyrrho persuaderetur, quo facilius vinci possent quum se voluptatibus dedissent. Vixerat M'. Curius cum P. Decio qui quinquennio ante eum consulem se pro re publica quarto consulatu devoverat. Norat eundem Fabricius, norat Coruncanius, qui quum ex sua vita, tum ex ejus quem dico P. Decii facto judicabant esse profecto aliquid natura pulchrum atque praeclarum quod sua sponte peteretur, quodque spreta et contempta voluptate optimus quisque sequeretur. 44. Quorsum igitur tam multa de voluptate? Quia non modo vituperatio nulla; sed etiam summa laus senectutis est quod ea voluptates nullas magno opere desiderat. At caret epulis exstructisque mensis et frequentibus poculis. Caret ergo etiam vinolentia et cruditate et insomniis. Sed si aliquid dandum est voluptati, quoniam ejus blanditiis non facile obsistimus, divine enim Plato escam malorum appellat voluptatem, quod ea videlict homines capiantur ut hamo pisces, quamquam immoderatis epulis caret senectus, modicis tamen conviviis potest delectari. C. Duilium, M.F., qui Poenos classe primus devicerat, redeuntem a coena senem saepe videbam

puer; delectabatur crebro funali et tibicine quae sibi nullo exemplo privatus sumpserat: tantum licentiae dabat gloria.

Give some account of the historical personages mentioned in this passage.

III. Translate into Latin—

If a man will first acquire the power of writing and speaking a language, he can easily learn to read it.

He summoned a council of the officers to consider the plan of operations.

On the thirtieth of June the armies were face to face, and a battle was inevitable.

IV. Conjugate the verbs — jubeo, bibo, findo, cogo, fleo, pario, ardeo, struo.

V. Explain the following words and phrases:—heres ex deunce; in aere alieno esse magno; sub coronâ venire; septemtrio, hypallage, zeugma.

VI. Explain the origin and meaning of the phrase—"meâ interest."

VII. Give the dates and circumstances of the following battles:—Caudine Forks, Actium, Pharsalia, Zama, Thapsus.

VIII. Translate into Latin prose—

According to Homer, Aeneas was son of Anchises and Aphrodite (identified with the Roman Venus, goddess of Love) and the nephew of Priam, King of Troy. At first he takes no part in the Trojan war; but, being attacked by Achilles, afterwards performs many heroic deeds for the Trojans. He escapes by help of the gods when Troy is captured, and Homer clearly conceives him as reigning at Troy after the departure of the Greeks.

GREEK.

PROFESSOR KELLY.

I. Translate—

"Μάντι κακῶν, οὐ πώποτέ μοι τὸ κρήγυον εἶπας.
αἰεί τοι τὰ κάκ' ἐστὶ φίλα φρεσὶ μαντεύεσθαι
ἐσθλὸν δ' οὐδέ τί πω εἶπας ἔπος, οὐδ' ἐτέλεσσας.

καὶ νῦν ἐν Δαναοῖσι θεοπροπέων ἀγορεύεις,
ὡς δὴ τοῦδ' ἕνεκά σφιν Ἑκηβόλος ἄλγεα τεύχει,
οὕνεκ' ἐγὼ κούρης Χρυσηΐδος ἀγλαὰ ἄποινα
οὐκ ἔθελον δέξασθαι· ἐπεὶ πόλυ βουλόμαι αὐτὴν
οἴκοι ἔχειν. καὶ γὰρ ῥα Κλυταιμνήστρης προβέβουλα,
κουριδίης ἀλόχου· ἐπεὶ οὔ ἑθέν ἐστι χερείων
οὐ δέμας, οὐδὲ φυὴν, οὔτ' ἂρ φρένας, οὔτε τι ἔργα.
ἀλλὰ καὶ ὣς ἐθέλω δόμεναι πάλιν, εἴ τογ' ἄμεινον.
βούλομ' ἐγὼ λαὸν σόον ἔμμεναι ἢ ἀπολέσθαι.
αὐτὰρ ἐμοὶ γέρας αὐτίχ' ἑτοιμάσατ', ὄφρα μὴ οἷος
Ἀργείων ἀγέραστος ἕω. ἐπεὶ οὐδὲ ἔοικε.
λείσσετε γὰρ τόγε πάντες, ὅ μοι γέρας ἔρχεται ἄλλῃ."

II. Parse ἕθεν, χερείων, δόμεναι, σφίν.

III. Translate—

" Κάρτιστοι δὴ κεῖνοι ἐπιχθονίων τράφεν ἀνδρῶν.
κάρτιστοι μὲν ἔσαν, καὶ καρτίστοις ἐμάχοντο,
Φηρσὶν ὀρεσκῴοισι, καὶ ἐκπάγλως ἀπόλεσσαν.
καὶ μὲν τοῖσιν ἐγὼ μεθομίλεον ἐκ Πύλου ἐλθὼν
τηλόθεν ἐξ ἀπίης γαίης· καλέσαντο γὰρ αὐτοί·
καὶ μαχόμην κατ' ἔμ' αὐτὸν ἐγώ. κείνοισι δ' ἂν οὔτις
τῶν, οἳ νῦν βροτοί εἰσιν ἐπιχθόνιοι, μαχέοιτο.
καὶ μέν μευ βουλέων ξύνιεν, πείθοντό τε μυθῳ.
ἀλλὰ πίθεσθε καὶ ὔμμες, ἐπεὶ πείθεσθαι ἄμεινον.
μήτε σὺ τόνδ', ἀγαθός περ ἐών, ἀποαίρεο κούρην,
ἀλλ' ἔα ὥς οἱ πρῶτα δόσαν γέρας υἷες Ἀχαιῶν.
μήτε σὺ, Πηλείδη, θελ' ἐριζέμεναι βασιλῆϊ
ἀντιβίην· ἐπεὶ οὔποθ' ὁμοίης ἔμμορε τιμῆς
σκηπτοῦχος βασιλεὺς, ᾧτε Ζεὺς κῦδος ἔδωκεν.
εἰ δὲ σὺ καρτερὸς ἐσσὶ, θεὰ δέ σε γείνατο μήτηρ,
ἀλλ' ὅγε φέρτερός ἐστιν, ἐπεὶ πλεόνεσσιν ἀνάσσει.
Ἀτρείδη, σὺ δὲ παῦε τεὸν μένος· αὐτὰρ ἔγωγε
λίσσομ' Ἀχιλλῆϊ μεθέμεν χόλον, ὃς μέγα πᾶσιν
ἕρκος Ἀχαιοῖσιν πέλεται πολέμοιο κακοῖο."

IV. Write out this passage, substituting the classical Greek forms for the Homeric.

V. Translate—

"Ἦ δὴ λοίγια ἔργα τάδ' ἔσσεται οὐδ' ἔτ' ἀνεκτὰ,
εἰ δὴ σφὼ ἕνεκα θνητῶν ἐριδαίνετον ὧδε,
ἐν δὲ θεοῖσι κολῳὸν ἐλαύνετον· οὐδέ τι δαιτὸς
ἐσθλῆς ἔσσεται ἦδος, ἐπεὶ τὰ χερείονα νικᾷ.
μητρὶ δ' ἐγὼ παράφημι, καὶ αὐτῇ περ νοεούσῃ,
πατρὶ φίλῳ ἐπίηρα φέρειν Διὶ, ὄφρα μὴ αὖτε

νεικείῃσι πατὴρ, σὺν δ' ἡμῖν δαῖτα ταράξῃ.
εἴπερ γὰρ κ' ἐθέλῃσιν Ὀλύμπιος ἀστεροπητὴς
ἐξ ἑδέων στυφελίξαι· ὁ γὰρ πολὺ φέρτατός ἐστιν.
ἀλλὰ σὺ τόνγ' ἐπέεσσι καθάπτεσθαι μαλακοῖσιν·
αὐτίκ' ἔπειθ' ἵλαος Ὀλύμπιος ἔσσεται ἡμῖν."

VI. Parse the words—

νεικείῃσι, ἑδέων, στυφελίξαι, φέρτατος.

VII. Translate and explain—

(α). "Τὴν δ' ἐγὼ οὐ λύσω· πρίν μιν καὶ γῆρας ἔπεισιν
ἡμετέρῳ ἐνὶ οἴκῳ, ἐν Ἄργεϊ, τηλόθι πάτρης,
ἱστὸν ἐποιχομένην, καὶ ἐμὸν λέχος ἀντιόωσαν.
ἀλλ' ἴθι, μή μ' ἐρέθιζε, σαώτερος ὥς κε νέηαι."

And parse—

ἔπεισιν, ἀντιόωσαν, νέηαι.

(β). Ἀλλὰ, τὰ μὲν πολίων ἐξεπράθομεν, τὰ δέδασται,
λαούς δ' οὐκ ἐπέοικε παλίλλογα ταῦτ' ἐπαγείρειν.

(γ). μητρὶ φίλῃ ἐπίηρα φέρων.

(δ). οὐδέ τι θυμὸς ἐδεύετο δαπὸς ἐΐσης.

(ε). ἐπαρξάμενοι δεπάεσσιν.

VIII. Translate into Greek Prose—

(1). He said he would kill all who did not do what he ordered.

(2). They left their country and sailed away.

(3). He knew that the country on the other side of the river was extensive.

(4). They said that when they were released from their chains they would not forget his kind services.

FRENCH.

MR. D'ARENBERG.

I. Distinguish between the use of the Imperfect, Preterite Definite, and the Preterite Indefinite in French.

Write out Preterite of Coudre, Moudre, Savoir, and S'asseoir.

II. Write out the imperative affirmatively and negatively of s'en aller.

III. Give rules for use of pour and à before the infinitive. Is je crains à tomber correct?

Translate—(1) The Donkey said to the Dog either eat yourself or allow me to eat. (2) He was expelled for telling lies.

IV. When is the article omitted before substantives?

Translate—(1) He was living at number twenty in the Rue Jean Jacques Rousseau. (2) He has more money than brains.

V. Distinguish between devant, avant, en, dans, près de, prêt à, au-dessus, au-dessous.

Translate—"During that unfortunate war, and indeed in peace also, the Emperor was always ready to set out."

VI. What is the gender of Personne (1) as a noun, (2) as a pronoun.

Translate—"I have never seen any one so beautiful as the Empress Eugénie. She is also an extremely well-informed person."

VII. When does the past participle agree with the subject of the verb Give examples.

Translate into French—

A friend of Dean Swift one day sent him a turbot, as a present, by a servant lad who had frequently been on similar errands, but who had never received the most trifling mark of the Dean's generosity. Having gained admission he opened the door of the study, and, abruptly putting down the fish, cried, very rudely, "Master has sent you a turbot." "Young man," said the Dean, rising from his easy chair, "is that the way you deliver your message? Let me teach you better manners: sit down in my chair; we will change situations, and I will show you how to behave in future." The boy sat down, and the Dean, going to the door, came up to the table with a respectful pace, and, making a low bow, said, "Sir, my master presents his kind compliments, hopes you are well, and requests your acceptance of a small present." "Does he?" replied the boy, "return him my best thanks, and there's half a crown for yourself." The Dean thus drawn into an act of generosity laughed heartily, and gave the boy a crown for his wit.

Translate—

En vain quelques livres m'ont instruit de la perversité des hommes et des malheurs inséparables de l'humanité; mon cœur

se refuse à les croire. Je me représente toujours des sociétés d'amis sincères et vertueux, des époux assortés que la santé, la jeunesse et la fortune réunies comblent de bonheur. Je crois les voir errant ensemble dans des bocages plus verts et plus frais que ceux qui me prêtent leur ombre, éclairés par un soleil plus brillant que celui qui m'éclaire, et leur sort me semblent plus digne d'envie, à mesure que le mien est plus misérable. Au commencement du printemps, lorsque le vent du Piédmont souffle dans notre vallée, je me sens pénétré par sa chaleur vivifiante, et je tressaille malgré moi. J'éprouve un désir inexpliquable, et le sentiment confus d'une félicité immense dont je pourrais jouir et qui m'est refusée. Alors je fuis de ma cellule, j'erre dans la campagne pour respirer plus librement.

Le Lépreux de la Cité d'Aoste.

Translate—

Arrivée au haut de l'escalier, le portier donna deux coups de sonnette dont elle ne comprit pas bien la raison; mais comme elle avait vu quelquefois des sonnettes à la porte des boutiques elle pensa que c'était une précaution contre les voleurs. En entrant dans le salon, elle fut intimidée par l'air de cérémonie et par le silence qui y régnaient: jamais elle n'avait vu d'appartement si orné, et surtout si bien éclairé. La société était nombreuse et disposée en groupes: les jeunes gens jouaient autour d'une table dans un coin de la chambre; et tous les regards étaient fixés sur elle. La vielle princesse était à une partie de boston avec trois autres personnes: dès qu'elle aperçu la jeune fille, elle lui ordonna de s'approcher. Bonjour, mon enfant, lui dit-elle. Avez-vous une lettre pour moi? Malheureusement Prascovie avait oublié de la préparer; elle fut obligée de tirer un petit sac de son sein et d'en sortir péniblement la lettre. Les jeunes personnes présentes chuchotaient et riaient tout bas.

La Jeune Sibérienne.

GERMAN.

PROFESSOR LAMB.

I. Translate into English:

A. Indem er dieſe Worte ſprach, ſah er zu ſeinem großen Schrecken eine ganz kleine, ſonderbare Geſtalt hinter der dicken Tanne her-

vorſchauen; es war ihm, als habe er das Glasmännlein geſehen, wie man es beſchrieben, das ſchwarze Wämmschen, die rothen Strümpfchen, das Hütchen, Alles war ſo; ſelbſt das blaſſe, aber feine und kluge Geſichtchen, wovon man erzählte, glaubte er geſehen zu haben. Aber ach, ſo ſchnell es hervorgeſchaut hatte, das Glasmännlein, ſo ſchnell war es auch wieder verſchwunden! „Herr Glasmann," rief nach einigem Zögern Peter Munk, „ſeid ſo gütig und haltet mich nicht für einen Narren. — Herr Glasmann, wenn Ihr meint, ich habe Euch nicht geſehen, ſo täuſchet Ihr Euch ſehr, ich ſah Euch wohl hinter dem Baum hervorgucken."—Immer keine Antwort, nur zuweilen glaubte er ein leiſes, heiſeres Kichern hinter dem Baum zu vernehmen. Endlich überwand ſeine Ungeduld die Furcht, die ihn bis jetzt noch abgehalten hatte. „Warte, Du kleiner Burſche," rief er, „Dich will ich bald haben," ſprang mit einem Satz hinter die Tanne, aber da war kein Schatzhauſer im grünen Tannenwald, und nur ein kleines zierliches Eichhörnchen jagte an dem Baum hinauf.

B. „Höret zu, und Ihr werdet mir Recht geben," antwortete Felix. „Mein Vater war ein geſchickter Goldarbeiter in Nürnberg, und meine Mutter hatte früher bei einer vornehmen Frau gedient als Kammerfrau, und als ſie meinen Vater heirathete, wurde ſie von der Gräfin, welcher ſie gedient hatte, trefflich ausgeſtattet. Dieſe blieb meinen Eltern immer gewogen, und als ich auf die Welt kam, wurde ſie meine Pathe und beſchenkte mich reichlich. Aber als meine Eltern bald nach einander an einer Seuche ſtarben, und ich ganz allein und verlaſſen in der Welt ſtand und in das Waiſenhaus gebracht werden ſollte, da vernahm die Frau Pathe unſer Unglück, nahm ſich meiner an und gab mich in ein Erziehungshaus; und als ich alt genug war, ſchrieb ſie mir, ob ich nicht des Vaters Gewerbe lernen wollte. Ich war froh darüber und ſagte zu, und ſo gab ſie mich einem Meiſter in Würzburg in die Lehre."

II. Give the infinitive, past tense, and past participle of each of the following verbs: — ſprach, verſchwunden, rief, vernehmen, ſterben, verlaſſen, gebracht.

III. Give the plurals of Geſtalt, Geſicht, Baum, Haus, Jäger.

IV. Explain the precise force of each of the following auxiliary verbs: wollen, mögen, dürfen, ſollen, werden.

V. Give the precise meanings of herein, heraus, hinein, hinaus; and construct sentences in illustration.

VI. Parse the following sentence:

Als ſie meinen Vater heirathete, wurde ſie von der Gräfin, welcher ſie gedient hatte, trefflich ausgeſtattet.

VII. What English words are akin to ſonderbar, dick, erzählen, ſehr, Baum, Wald, Lehre?

VIII. Translate into English :

Hatto, Abt zu Fulda und ſpäter Erzbiſchof von Mainz, lebte im zehnten Jahrhundert, und war ein Mann von außerordentlicher Klugheit und den glänzendſten Geiſtesgaben; aber er war auch zugleich ein ſehr harter und geiziger Mann, der lieber die Hand zum Nehmen, als zum Geben ausſtreckte. Da geſchah es, daß während ſeiner Regierung eine große Hungersnoth ausbrach und Hunderte von Menſchen elendiglich umkamen. Viele Nothleidende ſammelten ſich dann um die Burg zu Mainz, wo Hatto ſein Hoflager hielt, und baten flehentlich um Brod, um ihr Leben zu friſten. Der hartherzige Biſchof aber weigerte es ihnen, obgleich ſeine Speicher ganz gefüllt waren, und ſagte, daß ſie müſſige, ſchlechte Leute wären, die lieber betteln als arbeiten wollten. Die Armen flehten dringender und forderten mit ungeſtümer, furchtbarer Stimme Brod. Da ließ Hatto eine Anzahl Hungriger — Männer, Weiber, Greiſe und Kinder — unter dem Scheine, als ſollte Korn unter ſie ausgetheilt werden, in eine Scheune führen und ließ dieſe dann zuſchließen und in Brand ſtecken; und während der Unglücklichen Klagegeſchrei aus dem Feuer zum Himmel emporſtieg, rief er den Mithelfern des Verbrechens höhniſch zu: Hört ihr, wie hübſch die Mäuslein dort pfeifen?

IX. Translate into German :

Tea-drinking was general in England earlier than in Scotland. The reason of this is said to be as follows :—In the year 1685 the widow of the Duke of Monmouth sent a pound of tea as a present to one of her relations in Scotland. This Chinese product was then unknown. It was examined closely, and a cook was sent for, who after a long scrutiny decided that it was a dried herb. The precious plant was confided to him to make what use of it he liked. Accordingly the artist had the leaves boiled, threw away the water, and served them up cooked like spinach. The guests did not find the vegetable to their taste, and the credit of tea suffered for a long time in consequence in Scotland.

present, Geſchenk	decide, Ausſpruch thun
relation, Verwandte	herb, Kraut
product, Erzeugniß	confide, überlaſſen
examine, unterſuchen	boil, ſieden
scrutiny, Prüfung	throw away, wegſchütten
serve up, auftiſchen	vegetable, Gemüſe
suffer, leiden	taste, Geſchmack

ENGLISH LANGUAGE.

Mr. Fletcher.

I. Define a sentence, and enumerate the essential parts of every sentence.

II. What is meant by dividing sentences into simple, complex, and compound? Give three examples of each.

III. Analyse the following sentences:—

A. "It is excellent
To have a giant's strength, but it is tyrannous
To use it like a giant." *(Shakespeare.)*

B. "Say what the use, were finer optics given,
To inspect a mite, not comprehend the heaven." *(Pope.)*

IV. What rule of composition is violated in the following sentences? How would you improve them so as to make the meaning clear?

A. "He wrote to that distinguished philosopher in terms the most polite and flattering, begging of him to undertake his education, and to bestow upon him those useful lessons which his numerous avocations would not allow him to bestow." *(Goldsmith's Greece.)*

B. "They flew to arms, and attacked Northumberland's horse, whom they put to death." *(Hume.)*

C. "It is a kind of basin, enclosed by a wall which comes from a distance of several miles, and is of a brackish, disagreeable taste." *(Rae Wilson.)*

V. What is the difference in usage between "shall" and "will?" Write out the future of the English verbs "to love" and "to wish."

VI. Justify or correct the following sentences:—

A. I saw the prime minister and the warden, and he told me of the appointment.

B. These sort of fellows are very numerous.

C. Go, bear this tidings to the bloody king.

D. Of all the figures of speech none comes so near to painting as metaphor.

E. An exposition of the Old and New Testament.

F. But he the chieftain of them all
His shield hangs rusting on the wall.

VII. What is meant by saying that "English is a composite language, but chiefly Anglo-Saxon." Arrange all the words of the following passages in lists according as you can assign them a Saxon, a Latin, a Norman French, or any other other origin.

A. "It was not by vile loitering at ease
That Greece obtained the brighter palm of art;
That soft yet ardent Athens learnt to please,
To keen the wit and to sublime the heart,
In all supreme! complete in every part!
It was not thence majestic Rome arose,
And o'er the nations shook her conquering dart;
For sluggard's brow the laurel never grows;
Renown is not the child of indolent repose!"

B. "The quality of mercy is not strained,—
It droppeth as the gentle rain from heaven
Upon the place beneath: it is twice blessed,—
It blesseth him that gives and him that takes:
'Tis mightiest in the mightiest: it becomes
The throned monarch better than his crown.
His sceptre shows the force of temporal power,
The attribute of awe and majesty,
Wherein doth sit the dread and fear of kings:
But mercy is above this sceptred sway—
It is enthroned in the hearts of kings,
It is an attribute to God Himself;
And earthly power doth then show likest God's
When mercy seasons justice."

VIII. Distinguish the following words by the aid of etymology:—

A. Benignity, benevolence.

B. Fame, renown, reputation, character.

C. Will, testament.

D. Subject, liable, exposed, obnoxious.

E. Flour, meal.

F. Omnibus, carriage, train.

IX. Parse fully, and give all the particulars of each word in the following:—

"It is an ancient mariner,
And he stoppeth one of three,
By thy long grey beard and glittering eye,
Now wherefore stopp'st thou me?"

ENGLISH HISTORY.

MR. FLETCHER.

I. Give a short sketch of the reign of Alfred the Great, and draw a sketch map of Britain in the 9th century.

II. What was the nature of the claim by which William of Normandy asserted his right to the English Crown?

III. What was the occasion of the demand for the Great Charter, and what were its principal contents?

IV. In whose reign and under what circumstances did "the English Universities begin to exercise a definite influence on the intellectual life of Englishmen?"

V. When, and by whom, was printing introduced into England? What were the first books that were printed there?

VI. Mention the chief events of the reign of Edward I.

VII. Between whom were the Wars of the Roses waged, and how was it that when Henry VII. came to the throne he "united the White Rose and the Red?"

VIII. Give the dates of the accession of the Tudor and the Stuart Kings.

IX. What is meant by the "revival of learning" in Europe, and how did it affect England?

X. Under what circumstances did the Spanish Armada take place?

XI. What was the occasion of the Massacre of Glencoe?

XII. In whose reigns, and in what years, did the following events occur:—

I. The first Crusade.
II. The Battle of the Standard.
III. The Battle of Wakefield.
IV. The Capture of Calais.
V. The publication of the Faerie Queen.
VI. The Battle of Edghill.
VII. The discovery of America
VIII. The Battle of Bunker's Hill.
IX. The repeal of the Corn Laws.

GEOGRAPHY.

MR. SUTHERLAND.

I. Draw a rough outline map of Australia.

II. Name in a separate list and indicate on the above map by initial letters as many as you can of the capes which would be passed in going from Adelaide to Brisbane.

III. Name the chief seaport towns of the United States, giving after each a list of its principal exports.

IV. Describe briefly the position, productions, and inhabitants of each of the following countries :—Belgium, Brazil, Burmah.

V. Name the principal desert tracts on the face of the globe, and state some of the causes on which their sterility depends.

VI. Explain fully what are meant by the following terms :—The Ecliptic, the Tropics, Trade Winds, Steppes, the Gulf Stream.

VII. Name the ten most populous countries of Europe, and give approximately their populations.

VIII. Name as many towns in France as you can, classifying those in the interior according to the rivers in whose basins they are situated.

PHYSICAL GEOLOGY.

PROFESSOR TATE.

I. By what chemical forces are rocks disintegrated ?

II. Describe the chief agencies by which the rock-materials of strata are distributed and arranged.

III. Classify mineral springs according to their characteristic mineral contents.

IV. Give an account, with diagrammatic illustrations, of the origin of Springs.

V. Enumerate some of the best known Salt Lakes. How do you account for their existence ?

VI. What is the specific gravity of the earth ? and that of its known constituents rocks ?

VII. What are the differences between shale, clay, and slate ?

VIII. Name the rock specimens placed before you.

CHEMISTRY.

PROFESSOR TATE.

I. If Air contains 23 per cent. of its weight of oxygen, how many lbs. of Carbon must be burnt in order to remove all the oxygen from 200 lbs. weight of air?

II. I give you a powder composed of 32 grains of sulphur and 56 grains of iron; how would you ascertain whether it be a mechanical mixture or a chemical combination of the two elements?

III. Prove by experiment that air consists mainly of Oxygen and Nitrogen.

IV. Refer to one or two experiments which illustrate the affinity of sodium for oxygen.

V. What do you understand by the statement that "sulphuric acid is stronger than nitric acid, and that carbonic acid is the weakest of the three?" How would you experimentally prove this?

VI. State the changes which take place when carbonic acid is continuously passed into lime water.

VII. What *reagents* would you employ to *precipitate* a *chloride* and a *sulphate* respectively? Explain in writing the terms printed in italic.

VIII. What chemical changes can be produced with iron-filings, flowers of sulphur, and dilute sulphuric acid?

IX. What is an *oxide*, a *monoxide*, and a *dioxide*? Give an example of each.

ANNUAL REPORT FOR THE YEAR 1881.

To His Excellency Sir William Francis Drummond Jervois, Major-General in Her Majesty's Army, Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George, Companion of the Most Honourable Order of the Bath, Governor and Commander-in-Chief in and over the Province of South Australia and the Dependencies thereof, &c., &c., &c.

The Council of the University of Adelaide have the honour to present to your Excellency the following Report of the Proceedings of the University during the year 1881 :—

Changes in the Council and Officers.

In April, by effluxion of time, the Lord Bishop of Adelaide and His Honor the Chief Justice of South Australia ceased to hold office as Chancellor and Vice-Chancellor of the University, and in May they resigned their offices as members of the Council.

In accordance with his own wish, the Lord Bishop was not re-elected to the Council, the two vacancies in which were filled by the re-election of the Chief Justice and the election of Edward Charles Stirling, Esq., M.A., M.D.

Shortly afterwards the Bishop and the Chief Justice were respectively re-elected Chancellor and Vice-Chancellor; and then, for the first time, the Council numbered twenty-one members.

In August the Hon. Henry Scott, M.L.C., resigned his office as a member of the University Council, and the vacancy thus created was filled by the election of Frederic Ayers, Esq., M.A.

In November the Rev. William Roby Fletcher, M.A., David Murray, Esq., J.P., Edward Willis Way, Esq., M.B., William Robinson Boothby, Esq., B.A., and John Anderson Hartley, Esq., B.A., B.Sc., in conformity with the provisions of the Adelaide University Act, ceased to hold office as members of this Council; and on the 7th of December they were re-elected by the Senate.

Hughes Professor of English Literature.

It is with deep regret that the Council record the death of the late Hughes Professor of English Literature, the Rev. John Davidson. He was amongst the first to advocate the establishment of an University in Adelaide, and he zealously supported its foundation. After the University was established he co-operated heartily in organizing it, and both as a teacher and a friend his unexpected loss is lamented alike by the Council, his colleagues, and the students.

It was deemed inexpedient to fill up at once the vacant office, and the Rev. William Roby Fletcher, M.A., who had on a former occasion acted as Professor Davidson's substitute, was requested and consented to undertake the duties of Lecturer during the remainder of the academic year.

This temporary arrangement having been made, the Council anxiously considered whether the munificent endowment granted by Sir Walter Watson Hughes might not be rendered more beneficial to the public if the generous donor would assimilate his deed of gift to that executed by Sir Thomas Elder. To omit from the curriculum Classics, English Literature, or Mental and Moral Philosophy formed no part of the Council's purpose, but they felt convinced that power to redistribute the duties of the Hughes Professors and vary the appropriation of the income of the fund would enable them to extend the usefulness of the University, while the important branches of learning referred to would continue to be taught not less efficiently than before. Trusting to the known public spirit of Sir W. W. Hughes, the Council have asked his concurrence in alterations of the nature just indicated, and should their proposal be acceded to by him, Parliamentary sanction for it will afterwards be sought. Pending the reply to their request the Council have appointed the Rev. William Roby Fletcher, M.A., Hughes Professor of English Literature for the year 1882.

Senate.

In April the Venerable Archdeacon Farr, M.A., was re-elected Warden on the expiration of his term of office; and the Council, on the recommendation of the Senate, re-appointed William Barlow, Esq., B.A., Clerk of the Senate.

Governors of the South Australian Institute.

In October, by effluxion of time, the Vice-Chancellor and the Rev. John Crawford Woods, B.A., ceased to represent the University on the Board of Governors of the South Australian Institute. The Vice-Chancellor was re-elected, the Rev. J. C. Woods did not offer himself as a candidate for the second vacancy, and Edward Charles Stirling, Esq., M.A., M.D., was elected thereto.

School of Medicine.

The great importance of establishing in the University a school in which medical students might acquire at least a portion of their professional training and knowledge has often engaged the attention of the Council, and they have determined to commence it by creating a lectureship on human physiology. E. C. Stirling, Esq., M.A., M.D., has been appointed the first Lecturer for a term of two years.

Endowment.

Sir Walter Watson Hughes has paid the sum of £20,000 which he had covenanted to contribute in endowing two professorships in the University, and has altered the trust-deed so as to permit the investment of the money in the purchase or on first mortgages of freehold lands and buildings in South Australia.

Admission to Degrees.

Arthur Donaldson having completed his Undergraduate course, was admitted to the Degree of Bachelor of Arts.

Messrs. Frederick Augustus D'Arenberg, M.A., Trinity College, Dublin; John Wellesley Flood, B.A. and M.B., Trinity College, Dublin; and James Thomas Mitchell, M.B. of the University of Aberdeen, were admitted *ad eundem gradum*.

University Building.

Early in the year so much of the work had been completed that the March examinations were held in the building; the Professors were able to conduct all their classes in it; and it was hoped that possession of the whole building would be obtained by the appointed day, the 1st of July. Great delay occurred, however, in carrying out the contract, and the Council regret to state that the building, though nearly finished, remains incomplete. Much inconvenience has arisen from the non-completion of the work within the specified time; but it is confidently expected that full possession of the building will be received before the beginning of the academical year in March next.

Royal Letters Patent.

The expectation expressed in the last Report that Letters Patent would be issued without further delay has been fulfilled. The Royal Charter has been received, and not only contains a recognition of Degrees to be granted in Science, but also authorizes the University to confer Degrees on Women.

Curriculum.

Since receipt of the Letters Patent a course for the Degree of Bachelor of Science has been prescribed, and appropriate Regulations have been made. The courses for the Degrees of Bachelor of Arts and Master of Arts have been revised and altered, and the Regulations relating to them have been repealed, and new Regulations enacted.

Matriculation and Primary Examinations.

The Regulations respecting these examinations having failed in some respects to give full satisfaction, a Committee, appointed to consider and revise them, took great pains to ascertain the views and meet as far as possible the wishes of the leading members of the scholastic profession, and after mature consideration prepared an amended scheme, which has been embodied in the new Regulations. The name of the University Primary Examination has been altered to "Junior Examination."

Students and Class Lists.

In 1881 five students (one a lady) commenced their undergraduate course; three completed the first year, four the second year, and six the third year of their studies for the degree of B.A.

Besides undergraduates, of whom there were fifteen, fifty-nine students attended various courses of lectures, or entered themselves for some subject of the Ordinary Examinations. Of these students twenty-one were ladies.

The results of the Ordinary and Matriculation Examinations appear in the class-lists in Appendix A. to this report.

Matriculation Examinations.

Sixteen candidates entered themselves for the Matriculation Examination in March, and forty-three for that in December. Of the candidates in March none passed in the first class, but nine passed in the second. In December six candidates passed in the first and twenty-three in the second.

University Primary Examination.

For the fourth Primary Examination, which was held in December, fifty-five candidates, of whom fourteen were girls, entered themselves, and thirty-five, of whom nine were girls, passed. Eight candidates passed in the first class, fourteen candidates in the second, and thirteen in the third.

In Appendix B. will be found the class-lists, showing the number of candidates who passed in the various optional subjects.

Cadetships at the Royal Military College.

On the issue of its charter this University became entitled to nominate annually one of its students to a cadetship in the Royal Military College at Sandhurst. The literary test for admission having been left to the University, subjects of examination have been prescribed, and the standard has been fixed with a view to ensuring as far as possible that no cadet nominated by this University shall fail to pass the further examination at Sandhurst.

Scholarships.

The examination for the University Scholarships was conducted for the first time by the University, instead of by the Education Department. There were three candidates, and the Council recommended that Scholarships should be awarded to John George Robert Murray and Walter Kingsmill.

Two candidates competed for the South Australian Scholarship in December. The award has not yet been made.

The sum (£500) subscribed for the purpose of founding the John Howard Clark Scholarships has been received and invested in accordance with the Statutes.

Tatiara Lands.

A tenant who held 8,926 acres at a yearly rent of £1,183 9s., or an average of a little under 2s. 8d. per acre, having recently surrendered his leases, 1,570 acres, (near the proposed railway station at University Block) of the surrendered lands have been relet for twelve months at 1s. 6d. per acre, and the remainder has been let on lease for twenty-one years at an average rent of about 3s. 4d. per acre. The annual rent of the 10,000 acres at Tatiara now amounts to £1,496 13s. 10d., which exceeds by £166 18s. the rent previously payable.

Wirreanda Lands.

The rent of the Wirreanda lands was paid for the first eighteen months of the terms of the leases. The last two seasons, however, have proved so unfavourable in that district that the rent, amounting to £2,841 2s. 6d. for the last three half-years remains unpaid. The Council, desirous of ascertaining the real condition of the tenants of this property, appointed an Inspector to examine into and report specially on each holding; and, having received a very full report, referred the same to a Committee for consideration, and have adopted its recommendations which are to remit a portion of the arrears of rent and reduce the future rentals to one-half the present rates.

Income.

The annexed account shows that the income has fallen below that of previous years. This reduction is not solely due to the non-payment of the rents of the Wirreanda lands. When Sir W. W. Hughes and Sir Thomas Elder paid the amounts of their respective endowments the sum of £40,000 became suddenly unproductive. To invest so large an amount was difficult. Not only was money abundant, but the securities upon which the sum of £20,000, contributed by Sir W. W. Hughes must, under his deed of gift, be invested were not procurable here, and it had become necessary to obtain his consent to alterations empowering the University to invest it on first mortgages or in the purchase of freeholds in South Australia. The Council have been advised that these alterations require Parliamentary sanction; and, pending the passing of the necessary Act, the money has been deposited in the Bank at £4 per centum per annum. For the £20,000 paid off in 1880 by Sir T. Elder eligible investments were not readily procurable; but £15,650 of that sum have been invested on first mortgages at rates of interest varying from £5 10s. per cent. to £7 per cent., and it is expected that the balance will soon be lent.

Accounts.

An abstract, duly audited, of the income and expenditure during the year 1881, as required by law, is annexed to this Report. There is also annexed a further statement showing the actual position of the University with respect to its property, funds, and liabilities to the close of the year 1881.

Signed on behalf of the University of Adelaide,

A. ADELAIDE,
Chancellor.

Adelaide, January, 1882.

APPENDIX A.

CLASS LISTS.

I. MATRICULATION EXAMINATION, MARCH.

First Class.

None.

Second Class.

(In alphabetical order.)

	LAST PLACE OF EDUCATION.
Beare, Charles Alston—2	Collegiate School of St. Peter
Burgess, Alfred Pickford—5	Prince Alfred College
Duncan, John	Glenelg Grammar School
Edmunds, Arthur James	Private Tuition
Harris, Frank Dixon—2	Glenelg Grammar School
Michell, George Francis—5	Prince Alfred College
Tennant, John—5	Prince Alfred College
Wilkinson, Alfred	Private Tuition
Wright, Charles Joseph Harvey—2	Prince Alfred College

The figures attached to the name of any candidate show in which, if any, of the *optional* subjects the candidate passed, as follow :

1 Passed in Greek
2 " German
3 " French
4 Passed in Natural Philosophy
5 " Chemistry
6 " Natural History

Sixteen Candidates, of whom seven failed in the Compulsory Subjects, entered themselves for this Examination. The following Table shows the Number of Candidates who presented themselves for, and of those who (having passed in the Compulsory Subjects), passed also in various Optional Subjects:

Optional Subjects.	No. of Boys entered.	No. of Boys Passed.
Greek	1	None
French	1	None
German	5	3
Chemistry	5	3
Natural Philosophy	None	
Natural History	5	None

N.B.—One girl entered herself for examination.

II. MATRICULATION EXAMINATION, DECEMBER.

First Class.

(In order of merit.)

	LAST PLACE OF EDUCATION.
Walker, William John—1, 2, 5	Collegiate School of St. Peter
Tucker, William Alfred Edgcumbe—2, 5	Prince Alfred College
Wilkinson, Frederick William—1, 2	Collegiate School of St. Peter
Northmore, John Alfred, Junior—1, 2	Collegiate School of St. Peter
Sandover, Alfred—5	North Adelaide Grammar School
Cock, Nicholas John—5	Prince Alfred College

Second Class.

(In alphabetical order.)

Bach, John Edmund—1, 2	Collegiate School of St. Peter
Bayly, William Reynolds—5	Prince Alfred College
Berry, George Augustus—3	Private Tuition
Boothby, Brinsley Charles—5	North Adelaide Grammar School
Burton, Alfred—2	Collegiate School of St. Peter
Caterer, Herbert Auburn—5	Norwood Grammar School
Evan, Lawrence William	Prince Alfred College
Farrow, Edmund	Port Adelaide Public School
Field, Henry Newland—1, 2	Collegiate School of St. Peter
Hall, Anthony James Alexander—1	Collegiate School of St. Peter
Henning, Andrew Harriot—5	Prince Alfred College
Longson, Henry Abraham	North Adelaide Grammar School
Magarey, Cromwell—2	Prince Alfred College
McNeil, Andrew	North Adelaide Grammar School
Mead, Cecil Silas—2	Prince Alfred College
Mellor, James Taylor—5	Prince Alfred College
O'Halloran, Thomas Shildham—5	Collegiate School of St. Peter
Paech, Johann Friedrich Wilhelm—2	Hahndorf College
Sibley, Nicholls Joseph—5	Prince Alfred College
Stapleton, Frank Lawrence—5	Prince Alfred College
Stow, Ernest Alfred—1, 2	Collegiate School of St. Peter
Treleaven, Walter	Prince Alfred College
Treuer, Percy Conradin—6	Glenelg Grammar School

The figures attached to the name of any candidate show in which, if any, of the *optional* subjects the candidate passed, as follows:

1. Passed in Greek
2. " German
3. " French
4. Passed in Natural Philosophy
5. " Chemistry
6. " Natural History

Forty-three Candidates, of whom fourteen failed in the Compulsory Subjects, entered themselves for this Examination. The following Table shows the Number of Candidates who entered themselves for, and of those who (having passed in the Compulsory Subjects), passed also in various Optional Subjects:

Optional Subjects.	No. of Girls entered.	Girls passed.	No. of Boys entered.	Boys Passed.
Greek	None.	No candidate.	10	7
French	None.		2	1
German	None.		26	11
Chemistry	None.		27	12
Natural Philosophy	None.		1	None.
Natural History (Geology) ...	None.		3	1

N.B.--No Girl entered for examination.

LIST OF STUDENTS WHO COMMENCED THE UNDERGRADUATE COURSE.

Hopkins, William Fleming
Kingsmill, Walter
Murray, George John Robert
Oldham, Reginald Vautin
Williams, Frances Elizabeth

IV. ORDINARY EXAMINATION FOR THE DEGREE OF B.A. MARCH.

The undermentioned Undergraduates passed the examination.

FIRST YEAR.

Wilson, Charles Stanley.

SECOND YEAR.

Donaldson, George.
Moore, Edwin Canton.

NOVEMBER.

The undermentioned Undergraduates passed the examination, and were placed in various classes as follows :—The names in each Class are in alphabetical order.

YEAR.	NAME.	CLASS.
First	Murray, George John Robert	First
First	Williams, Frances Elizabeth	Third
Second	Kerr, Donald Alexander	First
Second	Cooke, William Ernest	Second
Third	Gill, Alfred	First
Third	Holder, Sydney Ernest	First
Third	Clare, William	Second
Third	Rogers, Richard Sanders	Second
Third	Donaldson, George	Third
Third	Moore, Edwin Canton	Third

V. LIST OF STUDENTS NOT STUDYING FOR A DEGREE, WHO AT THE ORDINARY EXAMINATION IN NOVEMBER, PASSED IN THE UNDERMENTIONED SUBJECTS :

ELEMENTARY NATURAL PHILOSOPHY.

Bronner, Carl
Cole, Thomas (with credit)
Crottie, James Joseph
Dobbie, Charles Archibald (with credit)
George, Madeleine Rees
Tuck, Henry Joseph (with credit)

CHEMISTRY.

Bray, Christopher
Carroll, Emma
Charlton, Charles
Edwards, Thomas Morgan (with credit)
Fairweather, John
Ferrero, Emma Borina
Gallagher, William Edward
Hinde, Alice Berthon (with credit)
Hocking, Ernest (with credit)
Jones, Oliver David
Liebing, Frederick Wilhelm
McDonough, Michael James
Moore, Thomas
Newman, George Gough (with credit)
Stow, Laura Louise
Thomas Annie Isabel
Walker, Isabel Agnes
Williams, Alfred (with credit)

VI. Table showing the subjects of the Courses of Lectures and Examinations 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 the Ordinary Examination.	Number passed.
English Literature ...	10	None	
Latin	1	None	
Greek	1	None	
Elementary Pure Mathematics	1	None	
Elementary Applied Mathematics	2	None	
Elementary Natural Philosophy	18	9	6
Inorganic Chemistry ...	44	25	18
Logic	2	None	

APPENDIX B.

UNIVERSITY PRIMARY EXAMINATION.

DECEMBER.

PART I.—CLASS LISTS.

First Class.

(In order of merit.)

	SCHOOL.
Adams, Sophia Sarah—C.1*, D.*, E. 5*	Mrs. Shuttleworth's.
Smyth, Robert—A., D.*, E.1*, E.5	North Adelaide Grammar School.
Chinner, John Henry—A.*, D., E.1, E.3*	Prince Alfred College.
Downer, Marion Jane—A.*, C.1, E.5, E.6*	Advanced School for Girls.
Gazard, Esther Emma—A.*, C.1*, E.5*, E.6*	Advanced School for Girls.
Manthorpe, Ruth Agnes—A.*, C.1*, E.5*	Advanced School for Girls.
Hutchison, William John—A.*, E.1*, E.5*	North Adelaide Grammar School.
Mead, Gertrude Ella—A.*, C.1*, E.5	Advanced School for Girls.

Second Class.

(In alphabetical order)

	SCHOOL.
Bishop, John Henry—D.*	Prince Alfred College.
Counter, Francis William—A., D., E.3*	Prince Alfred College.
Geyer, Ernest William—A., D., E.1, E.3	Prince Alfred College.
Gibson, Edward John—A., B.1, E.1*	North Adelaide Grammar School.
Hill, Henry Richard—A., D., E.1*, E.3*	Prince Alfred College.
Joyce, Alfred Fleming—A., D., E.3	Prince Alfred College.
Monteith, Annie Freebairn—A.*, C.1, E.5	Palmer Place School.
Oldham, Harry Ross—A., D.*, E.1, E.3	Prince Alfred College.
Robertson, James Robert—A., D., E.1., E.3	Prince Alfred College.
Shepley, Harry—D.*, E.3	Prince Alfred College.
Sibley, Henry Evan—A., D., E.3	Prince Alfred College.
Thomas, Annie Isabel—A., C.1*, E.1*, E.6*	Madame Marval's.
Thomas, Henry—A., D.*, E.1, E.3	Prince Alfred College.
Warren, Frederick William—B.1, D., E.1, E.5	North Adelaide Grammar School.

Third Class.

(In alphabetical order)

	SCHOOL.
Adams, Anna Maria—C.1, E.5	Mrs. Shuttleworth's.
Brown, Blanche Ida—E.5	Mrs. Shuttleworth's.
Carlin, Ernest Herbert—A., E.1, E.3	Prince Alfred College.
Daniels, Henry—A.	North Adelaide Grammar School.
Goldsmith, Frederick—E.1., E.5	South Australian Commercial College.
Hodgkinson, Edward Gladstone —A., E.3	Prince Alfred College.
Kay, Herbert—A., D., E.3	Prince Alfred College.
Linke, Friedrich Wilhelm—C.2*, D., E. 5	Hahndorf College.
Rowett, Joseph Charles—A., D., E. 3	Prince Alfred College.
Sabine, Ernest Maurice—B.1	Lancing School, Glenelg.
Tilemann, Theodor Alexander—C.2, E.3	Prince Alfred College.
Weddell, Charles Alfred—E.5	South Australian Commercial College.
Wreford, Ernest Henry—D., E.1, E.5	North Adelaide Grammar School.

In the foregoing Lists an asterisk denotes that the Candidates passed *with credit* in the subject represented by the letter to which the asterisk is attached, and the letters and figures set opposite a Candidate's name denote that the Candidate passed in the *optional* subjects thereby represented, as follows:

A. —English
B.1—Latin
C. —French and German
C.1—French
C.2—German
D. --Mathematics
E.1—Chemistry
E.2—Elementary Physics
E.3—Botany
E.4—Zoology
E.5—Physical Geography
E.6—Anima Physiology

PART II. *Fifty-five Candidates entered for this Examination and presented themselves at it. Twenty failed in the Compulsory Subjects. Of the remaining thirty-five none failed to satisfy the Examiners in one of the Optional Subjects. The following Table shows the Number of Candidates who entered themselves for, and of those who (having passed in the Compulsory Subjects), passed also in various Optional Subjects:*

Optional Subjects.	No. of Boys entered.	No of Girls entered.	Total.	Boys passed.	Girls passed.	Total.
English	39	8	47	17	6	23
Latin	10	1	11	3	None	3
Greek	None	None				
French	3	11	14	None	8	8
German	2	None	2	2	None	2
Mathematics	34	2	36	17	1	18
Chemistry	38	1	39	13	1	14
Elementary Physics ...	None	None				
Botany	19	2	21	15	None	15
Zoology	None	None				
Physical Geography ...	19	10	29	7	8	15
Animal Physiology ...	None	3	3	None	3	3

THE UNIVERSITY OF ADELAIDE.

Account of Income and Expenditure for the year 1881, *furnished in compliance with the* 18*th Section of Act* 37 *and* 38 *Victoria, No.* 20 *of* 1874.

INCOME.	£	s.	d.	£	s.	d.
Balance from 1880				16,470	9	0
Hughes, Sir W. W.—Amount paid in fulfilment of his covenant to contribute £20,000 to the University				20,000	0	0
J. H. Clark Scholarships' Fund—Amount paid in fulfilment of agreement to contribute £500 to found J. H. Clark Scholarships ...				500	0	0
Building—Government Contributions to: amount on account of Parliamentary votes ...				6,000	0	0
Income (less annual charges)—H.M. Government. Balance of Grant for 1880-81	1,000	0	0			
Ditto on account of Grant for 1881-82 ...	1,000	0	0			
Fees ...	287	19	6			
Interest	1,162	3	0			
Rent ...	2,588	4	9			
Incidental Receipts ...	12	4	3			
				6,050	11	6
Balance ...				1,884	7	3
				£50,905	7	9

EXPENDITURE.	£	s.	d.	£	s.	d.
Hughes, Sir W. W.—Amount of Endowment on deposit at 4 °/₀ ...				20,000	0	0
J. H. Clark Scholarships' Fund—Suspense Income Account ...				18	16	5
Building ...				9,500	0	0
S. A. Gas Company—Advance for purchase of Gas Fittings for the University Building				260	0	0
Annual Expenses—						
Salaries ...	4,303	10	0			
Expenses of Senate ...	63	10	0			
Examinations ...	216	14	0			
Charges (including Printing, Advertising, and Costs of Sale of Leases)	475	6	4			
				5,059	0	4
Library—Binding and Purchase of Books ...				136	4	4
Laboratories—Purchase of Apparatus, Repairs, &c. ...				113	19	2
Furniture ...				117	7	6
Museum—Purchase of Entomological Specimens				50	0	0
Sundry Loans on Mortgage	15,150	0	0			
J. H. Clark Scholarships Fund—Amount invested on Mortgage ...	500	0	0			
				15,650	0	0
				£50,905	7	9

HENRY AYERS, Treasurer.

Audited and found correct,
Adelaide, January, 1882.

W. S. DOUGLAS,
HENRY STODART, } Auditors.

THE UNIVERSITY OF ADELAIDE.

Statement showing its actual Financial Position on 31st December, 1881.

Dr.	£	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 Building by H.M. Government	14,000	0	0
Contributed towards Building by Private Donations	1,640	5	0
Income (less annual charges)	15,295	18	6
Rent in Arrear	2,841	2	6
J. H. Clark Scholarship Endowment	500	0	0
Balance due to Bank	1,884	7	3
	£131,911	16	3

Cr.	£	s.	d.	£	s.	d.
By Value of Lands 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	30,171	6	0			
Advance to procure Gas Fittings for Ditto	260	0	0	30,431	6	0
Library—Expended to Date				1,500	8	1
Laboratories do.				2,079	0	0
Furniture do.				812	17	4
Medical School do.				19	18	2
Museum do.				77	5	0
E. S. & A. Ch. Bank. Deposited at £4 % per annum				20,000	0	0
Sundry Mortgages from £5½ % to £7 %				15,650	0	0
Agent-General for South Australia—Balance in his hands				101	7	8
J. H. Clark Scholarships' Endowment—Invested on Mortgage				500	0	0
Sundry Debtors, including Rent in Arrear				2,859	18	11
				£131,911	16	3

HENRY AYERS, Treasurer.

Audited and found correct,
Adelaide, January, 1882.

W. S. DOUGLAS,
HENRY STODART, } AUDITORS.