

Vacancies in the Senate are filled by means of a convocation of electors, consisting of the Fellows of the Senate for the time being, Professors, Public Teachers and Examiners in the Schools of the University, Principals of Incorporated Colleges within the University, Superior Officers declared to be such by By-law, Masters and Doctors in any Faculty, and Bachelors of three years' standing.

There are four Faculties in the University, viz., Arts, Law, Medicine and Science.

In the Faculty of Arts two Degrees are given—namely, Bachelor of Arts and Master of Arts. The curriculum of study for the Degree of B.A. extends over a period of three years, during which students are required to attend lectures and pass examinations. The subjects of study are English, Latin, Greek, French and German Languages, Ancient and Modern History, Mental Philosophy and Logic, Mathematics, Chemistry, Physics, Geology and Palæontology, Biology, Physiology, &c.

In the Faculty of Law the Degrees of LL.B. and LL.D. are given. The curriculum of study for the Degree of LL.B. extends over five years. The Degree of Bachelor of Law is recognised by the Board for the admission of Barristers in New South Wales as a qualification for admission to the Bar.

In the Faculty of Medicine three Degrees are granted, viz., Bachelor of Medicine, Doctor of Medicine, and Master of Surgery. The course of study for the Degrees of M.B. and Ch.M. extends over a period of five years.

The colony of New South Wales has been declared to be one of the British possessions to which the Imperial Medical Act of 1886 applies, and the Degrees in Medicine and Surgery granted by the University of Sydney are registered upon the Colonial List of the British Medical Register, under section 13 of that Act.

The University of Sydney is recognised as one of the Institutions from which the University of London is authorised to receive certificates for Degrees in Medicine. The University of Edinburgh accepts certificates of attendance on Medical Classes in this University to the extent of three years of professional study, and the Royal College of Surgeons extends a similar

# FACULTY OF MEDICINE.

## FIRST YEAR EXAMINATION.

### CHEMISTRY—(INTRODUCTORY).

The same paper as that set in the First Year in Arts.

### CHEMISTRY—(METALS).

*Where possible illustrate your answer with diagrams and equations.*

1. Give a brief account of the methods for preparing, and the properties of the (*a*) metallic hydrides, (*b*) oxides, (*c*) hydroxides, (*d*) sulphides and (*e*) carbides.
2. What do you understand by the terms (*a*) dissociation, (*b*) mass action and (*c*) reversible reactions? Give illustrations of each.
3. How are the atomic weights of the elements determined? Describe briefly the freezing point and boiling point methods for obtaining molecular weights.
4. Why are arsenic and antimony classed together? What chemical changes take place when their sulphides are acted upon by NaOH or Na<sub>2</sub>S?
5. How does mercury occur in nature? How is it extracted? Give a brief account of its principal compounds with chlorine, oxygen and sulphur.
6. Compare the properties of nickel and cobalt, and state how they are extracted from their ores.
7. Why is (*a*) hydrogen sulphide passed through an acid solution to precipitate the metals of Group 2; (*b*) nitric acid added to the filtrate? Why is it necessary to get rid of silica and organic matter?



## SECOND YEAR EXAMINATION.

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ANATOMY.

1. Describe the constitution of the nasal fossæ of the skull.
2. State what are the anatomical characters of a diarthrodial joint and of a synchondrosis, and give examples of each.
3. State the precise insertions of the following muscles, and give the innervation of each :—
  - M. extensor carpi radialis longior
  - M. obturator externus
  - M. pronator radii teres
  - M. plantaris.
4. Draw a diagram of the internal capsule of the cerebrum as seen in a horizontal section, and indicate the nature of the fibres found in the various regions of it.
5. State briefly how and where the following organs appear in development :—
  - (a) the lungs
  - (b) the urinary bladder
  - (c) the uterus
  - (d) the pituitary gland or body
  - (e) the tongue.

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PHYSIOLOGY.

1. Describe the histological structure of an adult tooth, giving diagrams in illustration.
2. (a) Tell what you know as to the nerve muscle mechanisms of inspiration, and
  - (b) Compare the causation of a cough with that of a sneeze.
3. (a) Describe the structure of the valves of the heart and of those of the great arteries.
  - (b) Describe a complete cardiac cycle.
  - (c) How may the heart be inhibited?

## THIRD YEAR EXAMINATION.

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ANATOMY.

1. Describe fully the orbital cavity of the skull.
2. Describe the formation, position, relations and branches of the deep palmar arch.
3. Draw a diagram of a transverse section of the forearm about its middle. Show the structures cut, in their proper relative positions, indicating their names by letters.
4. Give an account of the origin, course, chief relations, and distribution of the anterior crural nerve.
5. Describe the position and relations of the ileo-coecal junction, and the anatomical arrangements of the ileo-coecal valve.

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PHYSIOLOGY.

*FIVE questions only to be attempted.*

1. Explain the conditions which determine the entrance of oxygen into, and the exit of carbonic dioxide from, the blood in the respiratory process.
2. What circumstances, other than nervous impulses, may influence the character of the heart's beat?
3. Write what you know concerning the Liver in respect to the production of Urea. State the nature of the experimental evidence on which your conclusions are based.
4. Describe, with diagrams, the microscopic structure of a lymphatic gland. Compare with this the structure of the thymus gland and the spleen so as briefly to bring out the differences of structure that exist.
5. Write what you know concerning the physiological basis of the muscular sense. State a few instances serving to show the important part played by this sense in our daily lives.



## FOURTH YEAR EXAMINATION.

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PATHOLOGY.

1. Give an account of the process of Infarction.
2. Give the characters of the bacillus of Typhoid Fever, and discuss its distribution in the body in this disease. Discuss the points that distinguish this bacillus from the bacillus colicommunis and such like organisms.
3. Discuss the pathology of Pernicious Anæmia and contrast this disease with Chlorosis.
4. Give an account of the nature, morbid anatomy and issues of bronchopneumonia.
5. Describe the melanotic sarcomata.

*Or (instead of 5)*

Discuss the nature of Malaria. (Prize question).

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## OPERATIVE SURGERY AND SURGICAL ANATOMY.

1. Describe the different operations that have been performed on the Biliary System, and give the indications for each.
  2. Describe the anatomy of the Common and Internal Carotid arteries. Describe the operations for ligature of these vessels, and the difficulties and dangers attending these operations.
  3. Give the course and distribution of the musculo-spiral nerve and its branches.
  4. Describe the bony surfaces entering into the formation of the knee joint, and describe the synovial membrane of this joint.
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## MIDWIFERY.

TWO HOURS.

1. Describe extra-uterine pregnancy in regard to its causes, forms, symptoms, diagnosis, differential diagnosis and treatment.
2. Describe the mechanism of labour when the head is in the following positions—
  - (a) Left occipito-posterior (L.O.P.).
  - (b) Right mento-posterior (R.M.P.).

What treatment would you adopt in each case?

3. Mention the common forms of illness that are incidental to the puerperal state, and describe the treatment of each.

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GYNÆCOLOGY.

TWO HOURS.

THREE questions only to be answered.

1. Give the pathology, symptoms and physical signs of the various forms of malignant disease that arise primarily in the body of the uterus. How would you clinically differentiate between malignant and benign lesions in such a position?
2. Give the ætiology, pathology, symptoms, physical signs and treatment of chronic Cervical Catarrh (Endocervicitis).
3. Give the anatomy of the Fallopian tubes, the pathological conditions met with, giving fully their causes, symptoms and treatment.
4. Give the names and positions of the external Genitals and their common diseases, causes and appropriate treatment.

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MEDICAL JURISPRUDENCE AND PUBLIC HEALTH.

TWO HOURS.

1. Describe the signs and symptoms in fatal cases of poisoning by boracic acid.
2. In what order are the various regions and parts of the body affected by *rigor mortis*?



2. Describe the ophthalmoscopic appearances of optic atrophy.  
What are its chief causes and in what way is vision affected?
  3. Give the symptoms, causes, prognosis and treatment of Catarrhal Conjunctivitis. How do you distinguish between Conjunctivitis and Iritis?
  4. What ocular symptoms and diseases are found associated with each of the following general diseases—Bright's Disease, Diabetes, Diphtheria, Disseminated Sclerosis, Locomotor Ataxia, and Syphilis?
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#### CLINICAL MEDICINE AND CLINICAL SURGERY.

An examination in the wards of a recognised Hospital.

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