

EXAMINATION PAPERS.

PHYSIOLOGY.

PAPER FOR JUNIOR AND SENIOR STUDENTS.

Examiner, - - - - - A. BRUERE, M.D.

1. (a) Describe the minute structure of a striated muscle fibre.
(b) Mention the physical and chemical properties of the carbohydrates found in striped muscle during rigor mortis.
2. (a) Describe the movements performed by the jaws during mastication.
(b) Name the muscles concerned in the causation of those movements.
3. (a) Describe the minute structure of enamel.
(b) Give an account of the development of the enamel organ of a permanent tooth.
4. What is the influence of a high arterial blood pressure on the frequency of the heart's action—
(a) When the vagi nerves are intact?
(b) After section of both vagi?
5. (a) Compare the chemical composition of the aqueous humour with that of ordinary lymph.
(b) What is the probable source of the aqueous humour?

SESSIONAL EXAMINATION—CHEMISTRY.

Examiner, - - - - - J. T. DONALD, M. A.

1. Radiant heat, latent heat, specific heat. Explain these. Describe the centigrade thermometer and convert 60° Cen. into Fahrenheit degrees.
2. Explain how you would determine the specific gravity.
(a) Of a fragment of limestone;
(b) Of a sample of petroleum.
3. Give the formulae for the oxides of nitrogen. Show how nitric acid is derived from the pentoxide. Describe the manufacture and properties of commercial nitric acid.