

PHYSIOLOGY.

Second Year.

EXAMINER—DR. MCCALLUM.

- (1) Describe the absorption of fat in the intestinal canal. The absorption of Peptones.
- (2) Describe the histology of a Malpighian tuft. Give experiments showing its function.
- (3) (a) Describe four nerve terminations. (b) Show by diagram the motor and sensory paths in the spinal cord, and indicate their nutritive centres.
- (4) What happens when (a) one vagus is severed in the neck? (b) When both vagi?
- (5) Describe briefly the experiments you have seen with a nerve-muscle preparation.

THEORETICAL CHEMISTRY.

Second Year.

EXAMINER—JAS. H. BOWMAN.

- (1) (a) How may Arsenic be prepared from its ores? (b) Give the properties and composition of White Arsenic of commerce.
- (2) Describe the instrument by which to determine (a) Intensity and quantity of Heat. (b) Intensity and quantity of Electricity.
- (3) Give the methods of preparation and characters of (a) two Mercurous Salts; (b) two Mercuric Salts.
- (4) Give full description, with methods of preparation, of (a) Aluminum, (b) Sodium, (c) Copper, (d) Mercury.
- (5) Show by equation the action of Sulphuric Acid on (a) Sodium Hydrate, (b) Calcium Carbonate, (c) Iron, (d) Copper, (e) Platinum, (f) Ferric Hydrate.
- (6) (a) What is meant by Triatomic Alcohol? (b) Give description and method of preparation of one of them.
- (7) Write formulæ for (a) Ethyl Alcohol, (b) Aether, (c) Trimethylamine, (d) Urea, (e) Formic Acid.

Answer any six.

ANATOMY.

Second Year.

EXAMINER—DR. JACKSON.

- (1) Name the structures attached to the Coracoid process of the Scapula, and describe one of the muscles named.
- (2) Give the course and relations of the Axillary Artery, and name its branches.
- (3) Give the origin, course and distribution of the Musculo-Spiral Nerve.
- (4) Describe the Lateral Sinus, and the third Ventricle of the Brain.
- (5) Describe the Duodenum, giving the relations, arterial and nerve supply.