

MATERIA MEDICA AND THERAPEUTICS.

MONDAY, 1ST APRIL, 1878:—9 to 11 A.M.

Examiner,.....PROFESSOR A. H. KOLLMYER, M.A., M.D.

1. Give the modern view with regard to the deleterious action of the so-called *cumulative medicines*, and name those that are specially so regarded in the British Pharmacopœia.
2. Name the ingredients entering into the composition of (i) Pil. Hydrargyri; (ii) Pulv. Ipecac. Co; (iii) and Liq. Morphine Hydrochlor; and the amount of each ingredient in each of these preparations.
3. Describe the actions, doses, and modes of administration of Amyl Nitrite.
4. How would you ascertain when a patient was fully under the influence of Chloroform, and fit to commence operating upon?
5. What symptoms would indicate danger during the administration of Chloroform, and what would be the appropriate treatment in cases of poisoning by this remedy, 1st, when from excessive inhalation, and 2ndly, when from imbibition?
6. Give the actions, uses, and doses of Salicylic Acid and what disadvantages may attend or follow its administration.

CHEMISTRY.

MONDAY, APRIL 1ST, 1878:—11 A.M. TO 1 P.M.

Examiner,.....PROF. CASEY A. WOOD, C.M., M.D.

1. (a) Describe Groves' voltaic battery, and give the course of the current in it. (b) What are the requisites for every galvanic battery. (c) What is meant by the following terms, and give an example of each: *anode, cathode, ion, electrode, cation, anion, electro-positive and electro-negative*?
2. The oxides of nitrogen. (a) Give the name, molecular weight, (hydrogen) specific gravity, and formula of each. (b) Explain how each one is obtained, and illustrate the process by means of a chemical equation. (c) Give their chemical and physical properties.
3. (a) What are the units of *weight, volume, length and surface measurement* employed in the metrical system? (b) How are they obtained, and what are their English equivalents?
4. Give the formulæ and describe the preparation of zinc sulphate, sodic carbonate, (from sea-salt) hydric nitrate, mercurous chloride and potassic hydrate, explaining, by means of chemical equations or diagrams, the reaction that takes place in each case.
5. (a) What is a saturated hydrocarbon? Give two examples. (b) Give the formulæ of the first three members of the $C_n H_{2n+1}$ series with their names, and show how an ether, an alcohol, an aldehyd, and an acid may be formed (theoretically) from each one of these hydrocarbon radicles.
6. (a) What are the three commonest sources of the albumen found in morbid urine and what means have we of distinguishing one from the others? (b) Give the tests for albuminous urine.