12. 0.31 of a gramme of a substance gave on combustion, .44 of a gramme of earbon dioxide and .27 of water, its vapour density is 2.152, air equal 1; give formula of substance.

(Only 10 questions to be answered).

## SECOND YEAR.

## PHYSIOLOGY.

Ecaminers Wesley Mills, M.D. F. G. Finley, M.D.

- 1. Give the briefest possible answers to the following: (a) use of hemoglobin; the cause of second sound of the heart; terre-action of each of the digestive secretions; (d) principal ingredient of the solids of urine; (e) its amount; (f) chemical re-action of blood; (g) chemical re-action of urine; the cause of the heat of the body; (i) the essentials in reflex action; (j) parts derived from the epiblast; the principal refracting medium of the eye; the functions of the liver; one anatomical relations of the blood supply of the liver; on chemical constitution of food stuffs; on functions of the medula oblongata; (p) average pulse rate in a man of 25 years of age; (q) average rate of respiration in the same.
- 2 The Blood: (a) general constitution; 3) purpose: (c) variations; (d) maintenance of its equilibrium.
  - 3. Discuss the relations of the mechanical and the vital in the circulation.
  - 4. Asphyxia: (a) phenomena: (b) explanation.
  - 3. Compare the stomach and its work in different animals.
- 6. Figure the different tracts of the spinal cord and discuss their functions.
- 7. Connect the gross and microscopic anatomy of the kidney with its functions.

## ANATOMY.

Ecominers Prof. Shepherd, M.D. H. & Birkett, M.D.

- 1. The skull cap having been taken away, name in proper order the structures it is necessary to remove to expose the third ventricle of the Brain.
  - 2. Dissection necessary to expose the triangular ligament.
- 3. Describe shortly any turee of the structures in apposition with the anterior surface of the abdominal aorta.
- 4. Attachments, nerve supply and actions of the muscles which flex the ellmw joint.
  - 3. Describe the male bladder and its method of development.
  - \* For students of Computation Medicine units.