

FIRST YEAR.

PHYSIOLOGY.

Examiner.....WESLEY MILLS, M.A., M.D.

1. Give an account of the structure and function of Hydra.
2. Illustrate by diagrams the early development of the chick.
3. Give a brief but comprehensive account of the structure and functions of the stomach of man.
4. State the parts concerned in the circulation of the blood; their structure, and the part each plays.
5. Compare the inspired and expired air.
6. Describe the parts of the eye essential for distinct vision and explain their action.

CHEMISTRY.

Examiner..... }
 }PRINCE G. P. GEDDARD, M.D., M.R.C.S., ENG.
 }ASST. PROF. R. F. RUTAN, B.A., M.D.

1. What volume of oxygen would be required for the complete combustion of 0.9 gram. of oxalic acid? What would be the weight of each product?
2. Show how the undulatory theory accounts for the simpler phenomena of light and sound.
3. What are the units of electrical measurements.
4. Show by equations the reactions that occur when ammonia is treated with (a) chlorine, (b) potassium, (c) acetyl chloride and, (d) acetic aldehyde.
5. Write a full account of the chemistry of Bromine.
6. How would you detect small quantities of (a) corrosive sublimate, (b) chloral, (c) strychnia, (d) prussic acid, (e) tartar emetic.
7. Give two characteristic reactions for (a) chlorates (b) sulphur dioxide, (c) hydriodic acid, (d) primary amines, (e) carbonic acid. Give equations.
8. How would you distinguish: (a) saccharose, dextrose, maltose, and lactose,
 (b) starch, dextrin, and glycogen,
 (c) tartaric, citric, and oxalic acids.
9. How may (a) urea, (b) chloral, (c) succinic acid, be prepared from ethyl alcohol. Give equations.
10. Give a full account of the chemistry of (a) Glycerine, (b) Benzoic acid.