

PHYSIOLOGY.

Answer ten questions, of which at least two should be selected from questions 9, 11, 12 and 13. Students who have spent but half a year on Physiology should answer six questions out of eight selected by the teacher.

1. Define the following: Life, physiology, hygiene, organic, inorganic, cell, tissue, assimilation, excretion, secretion.

2. Describe the general structure of the human skeleton. Discuss, briefly, its uses.

3. Discuss the difference between bones in childhood, in adult life, in old age. How does this affect their susceptibility to fracture? What sort of fracture is most common in children?

4. (a) Describe a joint, giving its essential points.

(b) What is a sprain? A dislocation? A fracture?

5. (a) Name the kinds of muscle tissue, giving an example of each.

(b) Name and define the properties of muscle tissue.

(c) Give the uses of muscle in the human body.

6. (a) Discuss lymph.

(b) What effect has fat upon the muscle tissue? How may we be rid of it?

7. Discuss the effect of muscular exercise on the various systems of the body.

8. Discuss the location and functions of the white and gray matter in the brain; in the spinal cord. What is reflex action? Define sensory nerve.

9. (a) Name and locate the main divisions of the cerebro-spinal nervous system.

(b) Draw a cross section of the spinal cord, showing relation of white and gray matter and nerves connected with the latter.

(c) Describe the sympathetic system and give function of same.

10. Name and locate the special senses. Give the stimulus necessary to affect each and trace the path of two nerve impulses thus stimulated.

11. Draw a diagram of the human trunk, locating the organs.

12. (a) Define venous blood; arterial blood.

(b) Draw a diagram of the circulatory system, naming the parts and describing the kind of blood found in each.

(c) Give a brief description of each of the essential parts of the circulatory system.

(d) What is the duty of the red blood corpuscles? What mineral is essential to this work?

13. (a) Draw a diagram of the digestive system and give a definition of the different parts.

(b) Name and locate the digestive juices and give the class or classes of food digested by each.

(c) What is food balance? Discuss its importance. What should be the principal difference between our food in summer and in winter?

14. (a) What are our principal excretory organs?

(b) Discuss the relation between the kidneys and the skin.

(c) What is the value to the body of drinking water? What quantity should we drink in twenty-four hours?

15. (a) Define quarantine; discuss, briefly, its value.

(b) Define disinfectant; discuss, briefly, its value.

(c) Define sanitation; discuss, briefly, its value.

(d) What has the mosquito to do with disease, and how can mosquitoes be destroyed?