

FIRST YEAR EXAMINATION.

ZOOLOGY.

Examiner, W. E. DEEKS, B.A., M.D.

1. Describe fully the structure of the *Hexactinia*, and give examples of some of the principal forms.
2. Write on the structure and life history of the *Cestoda* or *Trematoda*.
3. What is meant by the following Zoological terms? Give examples. Metamorphosis. Alternation of generations, Polymorphism, Parthenogenesis.
4. Describe the structure, and discuss the position in the animal scale, of the *Tunicata*, morphologically and embryologically.
5. Select some type of Canadian insect, and describe its structure and life history.
6. Classify the *Gymnomyza*, and give examples.
7. How would you classify the following :—Hydra, shark, crayfish, leech, cuttlefish, snail, barnacle, earthworm, mussel, seapen.
8. Describe the structure of the oyster, and show how it differs from any morphological type of the class to which it belongs.
9. Briefly characterize and give examples of the following :—*Nematoda*, *Ciliata*, *Arancida*, *Telostei*, *Asteroiden*, *Scyphomedusa*, *Coloptera*, *Polysoa*, *Octactinia*, *Polychaeta*.
10. Refer to their classes and order the specimens exhibited.

HISTOLOGY.

Examiners (Prof. GEO. WILKINS, M.D.
(N. D. GUNN, M.D.

1. *White fibrous tissue* and *yellow elastic tissue*—describe each. Wherein do they differ from one another? Where is each tissue found most abundantly in the human body?
2. Describe the microscopical structure of the tonsils.
3. Describe a section through the kidney.
4. Describe minutely all the structures concerned in the motor portion of a reflex movement of the leg.

BOTANY.

Examiner, D. P. BENHALLOW, B. Sc.

1. Give a concise account of the structure of a plant cell as found in (a), the myxogastres; (b), protozoous, or yeast.
2. Describe the sexual reproduction of (a), *Spizomyza*; (b), *Fucus* (c), a fern.