

END OF TERM 2 EXAMS 2019—BIOLOGY

S.3

TIME: 2Hours and 30 Minutes

Attempt all questions.

1. (a) Define enzyme.
(b) How are enzymes named?
(c) How do enzymes work?
(d) Mention the properties of enzymes.
(e) Describe the factors affecting enzyme activity.
2. (a) Explain the types of weathering.
(b) Outline the importance of the components of soil.
(c) Define the properties of soil.
(d) Describe an experiment to compare drainage and retention of water in clay and sandy soils.
3. (a) Define the following terms
 - i. Saprophytic nutrition.
 - ii. Phagocytosis
 - iii. Parasitism
 - iv. Holozoic nutrition
(b) Define the following terms
 - i. Ingestion
 - ii. Digestion
 - iii. Absorption
 - iv. Assimilation
 - v. Egestion
(C) Describe the process of digestion of food in the
 - i. Mouth
 - ii. Stomach
 - iii. Duodenum
 - iv. Ileum
(d)How is the ileum adopted to absorption of food?

4.
 - a) Outline examples of excretory products, organs that excrete them and animals that excrete them. (Illustrate using a table).
 - b) Describe the structure of a nephron with a drawing.
 - c) Describe the process of urine formation in humans.
 - d) Describe the mechanism of.
 - (i) Regulating sugar in the body.
 - (ii) Regulating water in the body.
5.
 - (a) Classify a house fly
 - (b) Describe the lifecycle of a house fly.
 - (c) Why insects are considered successful on Earth?
6.
 - (a) What is pollution?
 - (b) Define the types of pollution.
 - (c) Give an outline of human activities, in Uganda, which may result in environmental pollution.
 - (d) Describe the effects of water pollution.
7.
 - (a) Explain how the action of muscles causes air to pass from the atmosphere into the lungs.
 - (b) How does oxygen move from the air in the lungs into the cells of the blood?
 - (c) Mention adaptations of respiratory surfaces to their functions.
8.
 - (a) Distinguish between movement and locomotion.**
 - (b) How is locomotion important?**
 - (c) Describe the types of skeletons.**
 - (d) Draw a well labeled structure of fish and describe the instabilities during its swimming.**
 - (e) How are fish adapted to swimming?**

END