Uganda CDartyrs University FACULTY OF EDUCATION END OF SEMESTER ONE EXAMINATIONS 2021/2022 BACHELOR OF SCIENCE WITH EDUCATION DEPARTMENT OF SCIENCE YEAR THREE



BSIO 3101 ANIMAL PSYSIOLOGY

17th January 2022

Time: 9:30AM- 12:30PM 3hours

INSTRUCTIONS:

- 1. Carefully read through ALL the questions before attempting
- 2. Answer all questions in section A and B, plus 2 questions from C
- 3. No names should be written anywhere on the examination booklet.
- Ensure that your registration number is indicated on all pages of the examination answer booklet.
- 5. Ensure your work is clear and readable. Untidy work shall be penalized
- 6. Any type of examination Malpractice will lead to automatic disqualification

SECTION A (Attempt ALL Questions)

- 1) Which of the following is not a form of heterotrophic nutrition
 - a. Saprophytism
 - b. Chemosynthesis
 - c. Holozoic nutrition
 - d. Omnivore based
- 2) Which of the following is not a surface for gaseous exchange in amphibians
 - a. Buccal cavity
 - b. Skin
 - c. Lungs
 - d. Anus
- 3) Which of the following blood components is used in clotting process;
 - a. Platelets
 - b. Erythrocytes
 - c. Lymphocytes
 - d. T- killer cells
- 4) Which of the following is not part of the central nervous system in man;
 - a. Brain

| b. Spinal cordc. Nervesd. Medulla oblongata | |
|---|----------|
| 5) | em where |
| SECTION B (Attempt ALL Questions) | |
| 6) Define the following; | |
| a. Carnivore | 2 marks |
| b. Omnivore | 2 marks |
| c. Herbivore | 2 marks |
| 7) a. Write short notes about the significance of excretion in animals. | 4 marks |
| B. What's the significance of a short nephron in animals living in arid conditions? | 3 marks |
| 8) A. Outline the uses of locomotion in animals b. Outline the general functions of the skeleton in vertebrates | 4 marks |
| b. Outline the general functions of the skeleton in vertebrates | 5 mark |
| 9) a. Outline the two mechanisms used by insects to achieve locomotion. | 2 marks |
| b. Briefly discuss the concept of antagonistic muscles in animals. | 3 marks |
| 10) a. Outline the role of antibodies to animal immunity. | 3 marks |
| b. Briefly discuss the mechanism of natural immunity in man. | 4 mark |

SECTION C (Attempt at least TWO Questions)

11) Discuss the mechanism of feeding, reproduction and movement in;

a. Worms

b. Insects 10 marks

12) Using the necessary illustrations, discuss the process of urine formation in man. 20 marks

13) a. Outline the 3 major surfaces used by amphibians in carrying out gaseous exchange.

3 marks

10 marks

b. Discuss the ventilation mechanism in amphibians.

17 marks

14) a. Discuss the structural adaptations of erythrocytes that help them to maximally carry out their functions.

8 marks

b. Discuss the process of blood clotting in man.

12 marks

END