

ZOO 300E



OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2021 /2022 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER REGULAR EXAMINATION

FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE

COURSE CODE: ZOO 300E

COURSE TITLE: ANIMAL PHYSIOLOGY

DATE: 28TH JANURY 2022

TIME: 12.00PM – 05.00PM

INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

REGULAR – MAIN EXAM

ZOO 300E: ANIMAL PHYSIOLOGY

STREAM: BED (SCIENCE)

DURATION: 3 Hours

INSTRUCTIONS TO CANDIDATES

- i. Answer **ALL** questions from section A and any **FOUR** from section B.
- ii. Diagrams should be used whenever they serve to illustrate the answer.
- iii. Do not write on the question paper.

SECTION A (30 MARKS)

Question One

- a) State the difference between a Eukaryotic and a Prokaryotic cell. (2 Marks)
- b) Draw a well labeled diagram of an animal cell. (4 Marks)
- c) Outline the FOUR main functions of lysosomes. (4 Marks)
- d) Give the functions of centrioles in a cell. (3 Marks)
- e) Describe the structure of mitochondria. (2 Marks)

Question Two

- a) Compare and contrast the composition of the Extra Cellular Fluids (ECF) and the Intra Cellular Fluids (ICF). (4 Marks)
- b) Describe how fluids move across the various fluid compartments. (4 Marks)
- c) Distinguish between equilibrium and steady state in relation to homeostasis. (2 Marks)
- d) Describe the reflex control of homeostasis. (5 Marks)

SECTION B (40 MARKS)

Question Three

- a) Describe the structural organization of a mammalian body. (4 Marks)
- b) Describe the changes that occur on a neuron membrane during the action potential. (6 Marks)

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Question Four

- a). Illustrate the dermis region of the integument. (4 Marks)
- b). Highlight any SIX functions of the integument. (6 Marks)

Question Five

- a). Name:
 - i. Two bones of the appendicular skeleton. (2 Marks)
 - ii. Two bones of the axial skeleton. (2 Marks)
- b). Briefly distinguish the THREE types of muscles. (6 Marks)

Question Six

- a). Describe the structure of the ear. (4 Marks)
- b). State THREE common eye defects in human. In each case give the corrections. (6 Marks)

Question Seven

- a) Describe the human male reproductive system. (5 Marks)
- b) Describe the internal structure of the human heart. (5Marks)
