



OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2017 /2018 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER REGULAR EXAMINATION

**FOR THE DEGREE OF BACHELOR OF
SCIENCE IN MICROBIOLOGY**

COURSE CODE: ZOO 111

COURSE TITLE: BASIC ZOOLOGY II



DATE: 20TH APRIL, 2018

TIME: 9AM – 12.00 NOON

INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

ZOO 111: BASIC ZOOLOGY II

STREAM: BSc in Microbiology

DURATION: 3 Hours

INSTRUCTION TO CANDIDATES

- i. Answer **ALL** questions from section A and any **THREE** 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 (24 MARKS)

Question One

- a) Draw and label a bacterial cell. (3 Marks)
- b) Explain the structural composition of the cell membrane. (3 Marks)
- c) Distinguish between rough endoplasmic reticulum and smooth endoplasmic reticulum. (2 Marks)
- d) Give a brief account of how water is regulated in the blood. (2 Marks)
- e) State two roles of an excretory system. (2 Marks)

Question Two

- a) Explain two modes of reproduction in animal kingdom. (4 Marks)
- b) Outline four main features of cell theory. (2 Marks)
- c) Distinguish between ingestion and egestion. (2 Marks)
- d) Describe four types of lysosomes. (4 Marks)

SECTION B (36 MARKS)

Question Three

- a). Define the term Homeostasis. (2 Marks)
- b). Describe the structure and functions of the following components of a reproductive system:-
 - i. Vagina (5 Marks)
 - ii. Fallopian Tubes (5 Marks)

Question Four

- a). State two advantages of plasmids in prokaryotic bacteria. (2 Marks)
- b). Highlight the three components of a negative feedback system of homeostasis. (3 Marks)
- c). Describe the structural composition of esophagus. (7 Marks)

Question Five

Discuss six differences between prokaryotic and eukaryotic cells. (12 Marks)

Question Six

Write short explanatory notes on the following:-

- a) Open Circulatory System (4 Marks)
- b) Closed Circulatory System (4 Marks)
- c) Scrotum (4 Marks)

Question Seven

- a) Describe the main components of the nephron. (10 Marks)
- b). State two homeostatic functions of the kidney. (2 Marks)


