

ZOO 210

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OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2018 /2019 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER REGULAR EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN MICROBIOLOGY

COURSE CODE: ZOO 210

COURSE TITLE: INVERTEBRATE ZOOLOGY

DATE: 17TH DECEMBER, 2018

TIME: 2.00 PM – 5.00 PM

INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

ZOO 210

ZOO 210: INVERTEBRATE ZOOLOGY

STREAM: BSc in Microbiology

DURATION: 3 Hours

INSTRUCTIONS 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) Distinguish between open and closed circulatory systems. (2 Marks)
- b) Categorize invertebrates based on the absence or presence of germ layers. (4 Marks)
- c) Enumerate six locomotory structures present among the invertebrates. (3 Marks)
- d) Outline three features of the Phylum Porifera. (3 Marks)

Question Two

- a) Complete the table below:

Invertebrate (s)	Excretory mechanism	Mark(s)
Sponges		(1 Mark)
Flatworms		(1 Mark)
Molluscs		(1 Mark)
Insects		(1 Mark)
Echinoderms		(1 Mark)

- b) Tabulate three differences between protostomes and deuterostomes. (4 Marks)
- c) State three functions of coelom in the life animals. (3 Marks)



SECTION B (36 MARKS)

Question Three

- a) Explain the diverse grades of organization exhibited in invertebrates. (10 Marks)
- b) Outline the asexual modes of reproduction in the Phylum Protozoa. (2 Marks)

Question Four

- a) Briefly explain any three types of specialized cells present in the phylum Porifera.(6 Marks)
- b) Explain three theories that point out the origin of coelom. (6 Marks)

Question Five

- a) Using relevant examples, define radial and bilateral symmetry of the animal kingdom. (4 Marks)
- b) Describe how the coelom is formed schizocoely. (8 Marks)

Question Six

- a) Outline the general lifecycle of *Plasmodium*. (8 Marks)
- b) Give an explanation of how fertilization occurs in sponges. (4 Marks)

Question Seven

- a) Sponges depend on water currents through water canal systems for survival. Give account of three principal types of water canal systems present in sponges. (9 Marks)
- b) Compare and contrast the locomotory structures, mode of nutrition and reproduction in Class Mastigophora and Class Sporozoa. (3 Marks)
