

ZOO 102E



OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2020 /2021 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER MAIN EXAMINATION

FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE

COURSE CODE: ZOO 102E

COURSE TITLE: INVERTEBRATE ZOOLOGY

DATE: 26TH JULY, 2021

TIME: 08.00 AM – 11.00 AM

INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

REGULAR – MAIN EXAM

ZOO 102E: INVERTEBRATE ZOOLOGY

STREAM: BED (SCIENCE)

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.
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SECTION A (24 MARKS)

Question One

- a) What is the name given to the first cavity formed during development? (1 Mark)
- b) What does the archenteron of the developing embryo eventually develop into? (1 Mark)
- c) In which organism is cephalization common? (1 Mark)
- d) What type of circulatory system is likely to be exhibited by organisms in which a circulating body fluid is distinct from the fluid directly surrounding the body? (1 Mark)
- e) Identify one characteristic shared by cnidarians and flatworms. (1 Mark)
- f) In examining unknown animal species during its embryonic development, how can you be sure what you are looking at is a protostome and not a deuterostome? (1 Mark)
- g) Explain six general features of invertebrates. (6 Marks)

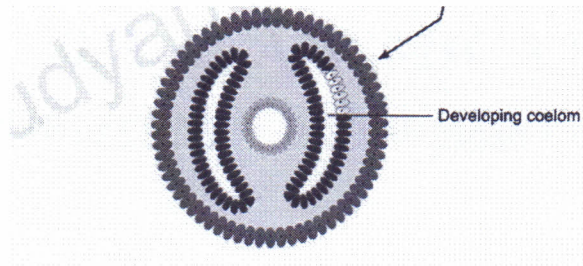
Question Two

- a) Differentiate between diploblastic and triploblastic organisms. (2 Marks)
- b) Explain five advantages of the presence of coelom in invertebrates. (10 Marks)

SECTION B (36 MARKS)

Question Three

- a) Explain two roles of parenchyma found in acoelomates. (4 Marks)
- b) Describe three examples of eucoelomates. (6 Marks)
- c) The diagram below shows a cross-section of an organism. Identify it based on the type of coelom. (2 Marks)



Question Four

Describe an amoeba in terms of the following:

- i. Habitat (3 Marks)
- ii. Locomotion (3 Marks)
- iii. Irritability (3 Marks)
- iv. Food and feeding (3 Marks)

Question Five

- a) Explain the external organisation of a sponge (*Leucosolenia*). (10 Marks)
- b) Explain the distinguishing features between a polyp and medusa (2 Marks)

Question Six

- a) Discuss the general characteristics of the Phylum Platyhelminthes. (6 Marks)
- b) Explain the parasitic adaptations of the *Fasciola hepatica*. (6 Marks)

Question Seven

- a) Describe *Ascaris lumbricoides* in terms of its habitat and habit. (8 Marks)
- b) Discuss two limitations of phylogenetic trees. (4 Marks)
