

DEPARTMENT OF BIOLOGY

HARMATTAN SEMESTER EXAMINATIONS 2016/2017

BIO 303 GENERAL INVERTEBRATE ZOOLOGY (3 UNITS)

TIME ALLOWED 3 HOURS DATE: 01 - 07 - 2017

INSTRUCTION: ANSWER 5 QUESTIONS, AT LEAST TWO FROM EACH SECTION.

Section A

1. a. List ten general characteristics of Platyhelminthes. (5 marks)  
b. Describe the life cycle of the human liver fluke (*Clonorchis sinensis*). (7 marks)
2. a. Draw and label a typical round worm. (5 marks)  
b. Briefly explain the genus *Trichinella*. (7 marks)
3. a. How do you know that a given organism is a protozoon? (6 marks)  
b. Discuss excretion and osmoregulation in Protozoa. (6 marks)
4. a. Mention 4 economic importance of the sponges. (4 marks)  
b. With the aid of annotated diagram, describe the life cycle of *Obelia*. (8 marks)

Section B

5. a. What are the 2 functions of the water vascular system in Echinoderms? (2 marks)  
b. Why is radial symmetry an advantage for Echinoderms? (4 marks)  
c. Write 6 characteristics that all Echinoderms share. (6 marks)
6. In a tabular form, write 5 differences between an insect and an Echinoderm. (5 marks)  
b. List 5 groups of Arthropoda studied. (3 marks)  
c. Name 2 classes of arthropods with fused head and thorax. (2 marks)  
d. Mention any two classes of the phylum Annelida. (2 marks)
7. a. Explain the following terms: i. Coelom ii. Metamerism. (4 marks)  
b. State 2 characteristics of the phylum Annelida and two of the Phylum Mollusca. (4 marks)  
c. Explain briefly the class cephalopoda. (4 marks)

DEPARTMENT OF BIOLOGY

HARMATTAN SEMESTER EXAMINATIONS 2017/2018

BIO 303: GENERAL INVERTEBRATE ZOOLOGY (3 UNITS)

TIME ALLOWED 2 ½ HOURS DATE: 21 – 04 - 2018

INSTRUCTION: ANSWER ANY FIVE (5) QUESTIONS

1. State the examples of flukes that infect humans; i. giving their common names and scientific names ii. Means of infection iii. Distribution and prevalence in humans. (12 marks)
2. a. Why is bilateral symmetry of adaptive value for actively motile animals? (2 marks)  
b. Give five major distinguishing characteristics of the Platyhelminthes. (5 marks)  
c. How do flat worms digest their food? (5 marks)
3. a. Outline the general characteristics of the phylum cnidarian. (6 mark)  
b. Using Hyman L. H. classification and with examples were necessary, classify the Hydrozoans to the order level. (6 marks)
4. With the aid of well labeled diagrams, discuss in detail sexual reproduction in Hydra. (12 marks)
5. a. Briefly discuss the segmented worms. (7 marks)  
b. Highlight five differences between the class oligochaeta and class polychaeta. (5 marks)
6. a. Members of the phylum arthropoda have been traditionally divided into three subphyla based largely on morphological characters. Name and discuss. (9 marks)  
b. Define the following: i. Chrysalis ii. Nymph iii. Instars. (3 marks)
7. a. Name four groups of animals without true coelom. (2 marks)  
b. Describe the life cycle of tape worm, *Taenia*. (10 marks)