

UNIVERSITY OF SWAZILAND

MAIN EXAMINATION PAPER 2018

TITLE OF PAPER : INVERTEBRATE ZOOLOGY

COURSE CODE : B204/BIO251

TIME ALLOWED : THREE HOURS

INSTRUCTIONS :

- 1. ANSWER ANY FOUR (4) QUESTIONS**
- 2. WHEREVER POSSIBLE ILLUSTRATE YOUR ANSWERS WITH LARGE CLEARLY LABELLED DIAGRAMS**

SPECIAL REQUIREMENTS: NONE

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATORS

QUESTION 1

- a. Describe the intertidal zone and enumerate the advantages and disadvantages of living in this area. [15]
- b. What has contributed to the biological success of the Phylum Arthropoda? [10]

QUESTION 2

- Distinguish between the following [5 marks each]
- Protonephridia and Metanephridia
 - Monophyletic and Paraphyletic
 - Schizocoelous and Enterocoelous
 - Ontogeny and Phylogeny
 - Osmoregulation and Osmoconforming

QUESTION 3

- What is coral bleaching? Discuss in detail the factors which contribute to this phenomenon [25]

QUESTION 4

- a. Gastrulation is considered an important stage in the ontogeny of an organism. Validate this statement and elaborate on the various methods observed among the Metazoa. [15]
- b. Define adaptive radiation and discuss the term with regard to bivalves. [10]

QUESTION 5

- a. Porifera have different three body forms. Identify these and explain why these developed. [15]
- b. Discuss in detail strategies and methods used in the prevention and control of Human African Trypanosomiasis. [10]

QUESTION 6

- Using named examples, assess the value of the following to organisms where observed:
- epitoky [10]
 - torsion [8]
 - metamorphosis [7]