

UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER 2007

TITLE OF PAPER : INVERTEBRATE ZOOLOGY

COURSE CODE : B204

TIME ALLOWED : THREE HOURS

INSTRUCTIONS :

1. THIS PAPER HAS SIX (6) QUESTIONS
4. ANSWER ANY FOUR (4) QUESTIONS
5. 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

What is the importance of sexual and asexual reproduction? Write a concise essay on the various modes of reproduction observed among invertebrates.

[Total = 25 marks]

QUESTION 2

i. Describe common adaptations to parasitic lifestyles of named invertebrates parasites.

(15)

ii. Describe the effects of some parasites on host behaviour and benefits to the parasite.

(10)

[Total = 25 marks]

QUESTION 3

Discuss in detail how protozoans gain nutrition, move and reproduce.

[Total marks = 25]

QUESTION 4

Using named examples, define and explain the importance of the following in organisms:

- i. Crystalline style
- ii. Peritrophic membrane
- iii. Typhlosole
- iv. Cuticle
- v. Stomodeum

[Total = 25 marks]

QUESTION 5

i. Using convergent evolution as an example, explain why similarities in structure does not necessarily indicate common ancestry.

(10)

ii. *Nautilus* is considered to be a modern day relict. Discuss this statement in relation to the survival of these organisms.

(15)

[Total = 25 marks]

QUESTION 6

Using examples, write short notes on the following:

- i. Paedomorphosis
- ii. Metamorphosis
- iii. Hermaphroditism

[Total = 25 marks]