

UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER 2007

TITLE OF PAPER : INTRODUCTORY ZOOLOGY

COURSE CODE : B112

TIME ALLOWED : THREE HOURS

INSTRUCTIONS :

1. THIS PAPER HAS TWO SECTIONS, A AND B
2. USE ONE (1) ANSWER BOOKLET FOR EACH SECTION
3. IN SECTION A, ANSWER QUESTION 1 (COMPULSORY) PLUS ANY OTHER QUESTION; IN SECTION B, ANSWER TWO QUESTIONS.
4. EACH QUESTION CARRIES TWENTY FIVE (25) MARKS
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

SECTION A

Question1 (Compulsory)

1. Communities are made up of _____
2. What is the biosphere? _____
3. Name two types of biomes. _____
4. Any community of interacting organisms is known a(n) _____
5. Each step of the food chain is known as a _____
6. Name an interaction where one organism benefits while there is no effect on the other.

7. Autotroph means _____
8. Heterotrophic feeding by absorption is known as _____
feeding.
9. Organisms which hardly ever move and if they do, they do so very slowly are said to be _____
10. _____-selected species usually have many offspring.
11. The placing of organisms into unique recognisable categories based on their characteristics is known as _____
12. Name a structure which is absent in plant cells but present in animals cells. _____
13. Name two locomotory organelles observed in the Protista. _____

14. Name an organism with a hydrostatic skeleton. _____
15. Name one advantage given by the exoskeleton. _____
16. In chordates, the hollow dorsal nerve chord later develops into the _____
17. Which organisms have the swimbladder? _____
18. In mammals, what is the function of the diaphragm? _____
19. Marsupialia use the _____ to provide for their young internally.
20. The observable traits in an individual are known as its _____
21. In heterozygotes, the full expression of both alleles is due to _____

22. Which types of mutations are inherited by offspring? _____
23. Name ^afactor which needs to be met for gene frequencies to remain unchanged. _____
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24. What is the first step towards the formation of a new species? _____
25. Microevolution occurs over _____ periods of time.

[Total = 25 marks]

Question 2

- a. Briefly discuss how organisms can be divided based on their primary source of energy. (15)
- b. Discuss how organisms can be distributed within their habitats and give reasons for each of the patterns described. (10)

[Total = 25 marks]

Question 3

- a. What evidence is used for evolution? (15)
- b. What is the cytoskeleton? Describe its structure and function. (10)

[Total = 25 marks]

SECTION B

QUESTION 4.

Write notes on the following:

- | | |
|----------------------------|------------|
| i) Loop of Henle' | (8 Marks) |
| ii) Functions of the liver | (8 Marks) |
| iii) Purkinje fibres | (5 Marks) |
| iv) Ostia | (4 marsks) |

[Total Marks = 25]

QUESTION 5.

What role is played by hormones in Mammalian reproduction?
(25 Marks)

QUESTION 6.

What are the constituents of mammalian blood? What is the role of each of the constituents?
(25 Marks)