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UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER 2002

TITLE OF PAPER : INTRODUCTORY ZOOLOGY

COURSE CODE : B112

TIME ALLOWED : THREE HOURS

INSTRUCTIONS :
1. ANSWER ANY TWO (2) QUESTIONS FROM EACH SECTION
2. USE ONE (1) ANSWER BOOKLET FOR EACH SECTION
3. EACH QUESTION CARRIES TWENTY FIVE (25) MARKS
4. 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

QUESTION 1 (Compulsory)

1. Specialised cells with a common function aggregate to form _____

2. Random changes in a population's gene pool are due to genetic _____

3. Using the binomial system of nomenclature, name human beings.

_____

4. Amoebas use _____ for locomotion.

5. Which protozoan phylum reproduces by conjugation? _____

6. Parasites of the _____ species cause malaria.

7.Two body forms observed in the cnidarians are the _____ and polyp.

8. What type of skeleton do roundworms have? _____

9. Members of the Class Vertebrata illustrate _____ symmetry.

10. What does "cephalopoda" mean? _____

11. How do earthworms contribute to ecosystem functioning? _____

_____

12. The starfish illustrates _____ symmetry.

13. In vertebrates, the _____ is later replaced by the backbone.

14. _____ is the first step towards the formation of a new species.

15. The _____ egg was first developed in the reptiles.

16. Name one way by which animals can avoid dessication._____

_____

17. Harmful ultra-violet rays are screened out by the _____

18. The introduction of elements into the biotic environment requires _____

_____

19. What is altruism? _____

_____

20. Alternate forms of genes are known as _____

21. The intermediate expression of traits in heterozygous individuals may be due to

_____

22. What is evolution? _____

_____

23. _____ is an interaction where both participants benefit from a non-compulsory relationship.

24. State one way by which we can get evidence of evolution _____

_____

[Total marks = 25]

QUESTION 2

a. Describe the basic molluscan body plan. (10)

b) Functions of the following:

i. Phospholipid bilayer
ii. Cytoskeleton
iii. Water vascular system (15)

[Total marks = 25]

QUESTION 3

Using named examples, briefly discuss the following:

i. Conditional gene expression
ii. Ecological niche
iii. Metamorphosis
iv. Advantages of body cavities
v. Mutations

(5 marks each)

[Total marks = 25]

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)