

UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER 2015

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. ANSWER ANY TWO QUESTIONS FROM EACH SECTION.
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

QUESTION 1

Briefly describe and state importance of the following:

- i. Dual lifestyle in amphibians (10)
- ii. Amniotic egg (15)

[Total = 25 marks]

QUESTION 2

a. Distinguish between the lithosphere, atmosphere and hydrosphere and name a function for each. (6)

b. Briefly discuss the similarities and differences between the Monotremata, Marsupialia and the Eutheria. (11)

c. Describe the key properties which characterise communities. (8)

[Total = 25 marks]

QUESTION 3

a. Define and give examples of each of the following:

- i. Partial dominance
- ii. Recessive lethal
- iii. Codominance (10)

b. Using the nitrogen cycle, describe how an ecosystem functions as a unit, with energy and nutrients flow between named biotic and abiotic components. (15)

[Total = 25 marks]

SECTION B

QUESTION 4

Write one or two words that apply to EACH of the following: (2.5 marks each)

- (i) Organ of excretion in mammals
- (ii) Enzyme of starch digestion in the human mouth
- (iii) Female hormone of pregnancy
- (iv) Product of fat digestion
- (v) Muscle controlling exit from the stomach
- (vi) Where ovum enters uterus
- (vii) Hormone involved in male puberty
- (viii) Connects one axon to another
- (ix) Number of chambers in a reptile heart
- (x) Feeds only on primary producers

[Total Marks = 25]

QUESTION 5

Describe and compare the structure and function of arteries, capillaries and veins.

[Total Marks = 25]

QUESTION 6

Write notes on the following:

- i) Proximal convoluted tubule (8)
- ii) Functions of the liver (8)
- iii) Coronary arteries (5)
- iv) Hepatic portal vein (4)

[Total Marks = 25]