

**UNIVERSITY OF SWAZILAND**  
**MAIN EXAMINATION PAPER 2007**

**TITLE OF PAPER:** VERTEBRATE ZOOLOGY

**COURSE CODE:** B302

**TIME ALLOWED:** THREE (3) HOURS

- INSTRUCTIONS:**
1. ANSWER ANY FOUR QUESTIONS.
  2. EACH QUESTION CARRIES TWENTY FIVE (25) MARKS.
  3. ILLUSTRATE YOUR ANSWERS WITH LARGE AND CLEARLY LABELED DIAGRAMS WHERE APPROPRIATE.

**SPECIAL REQUIREMENTS:**

**NONE**

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

**ANSWER FOUR (4) OUT OF SIX (6) QUESTIONS**

**QUESTION 1**

Describe and contrast the circulatory systems of chondrichthyan fishes and mammals. [25 marks]

**QUESTION 2**

Discuss the anatomical and physiological changes that were necessary for the invasion of terrestrial habitats by vertebrates living in aquatic habitats. [25 marks]

**QUESTION 3**

Write an essay on the breeding biology of birds, with particular reference to those living in Swaziland. [25 marks]

**QUESTION 4**

Discuss and compare the appendicular skeletons of Osteichthyes, Reptilia, Aves and Mammalia. [25 marks]

**QUESTION 5**

Describe reptilian diversity of Swaziland. Include any interesting information on the natural history of these reptiles, e.g. diet, breeding, habitat. The use of English names is acceptable. [25 marks]

**QUESTION 6**

Write explanatory notes on the following:

- a) Reptilian salt glands.
- a) Cutaneous respiration.
- b) Diapsid skull.
- d) Lateral line system.
- e) Ammocoete larva.

[5 marks each; 25 marks]