

**UNIVERSITY OF SWAZILAND**  
**DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND**  
**PLANNING**  
**FINAL EXAMINATION, DECEMBER 2009**  
**B.A., BASS, B. Ed.**

**TITLE OF PAPER: BIOGEOGRAPHY**

**COURSE NUMBER: GEP 312**

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

**INSTRUCTIONS:**

- 1. ANSWER THREE QUESTIONS**
- 2. QUESTION 1 IS COMPULSORY**
- 3. ILLUSTRATE YOUR ANSWERS WITH EXAMPLES AND CLEARLY DRAWN DIAGRAMS WHERE APPROPRIATE**

**ALLOCATION OF MARKS: QUESTION 1 (COMPULSORY) CARRIES 40 MARKS WHILE THE REST CARRY 30 MARKS EACH**

**THIS PAPER SHOULD NOT BE OPENED UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR**

**GEP 312 BIOGEOGRAPHY – DECEMBER 2009**

**SECTION A: COMPULSORY**

**QUESTION 1**

- a. As a bio geographer explain how you would logically conduct a field survey to demonstrate altitudinal zonation of tree species on Mdzimba Mountain. (15 marks)
- b. Explain fully how you would collect soil samples in a grassland. (10 marks)
- c. Explain how you would prepare the samples for testing soil pH and organic matter content. (15 marks)

**(40 marks)**

**SECTION B: ANSWER ANY TWO QUESTIONS**

**QUESTION 2**

Using examples explain the role of human beings in modifying the environment.

**(30 marks)**

**QUESTION 3**

Using examples discuss the effects of human culture on biogeography.

**(30 marks)**

**QUESTION 4**

- a. Discuss the effects of environmental change on ecosystem characteristics on the Earth surface. (15 marks)
- b. Using examples explain physiological adaptations of plants and animals to environmental changes on the Earth surface. (15 marks)

**(30 marks)**

**QUESTION 5**

Using examples demonstrate the transfer of energy in an ecosystem.

**(30 marks)**