

**UNIVERSITY OF SWAZILAND**  
**DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND PLANNING**  
**SUPPLEMENTARY EXAMINATION, JULY 2013**  
**B.A., BASS, B. Ed. (FT/PT)**

**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 – JULY 2013**

**SECTION A: COMPULSORY**

**QUESTION 1**

- a) Define the following terms:
- i. Differential co-existence (2 marks)
  - ii. Symbiosis (2 marks)
  - iii. Succession (2 marks)
  - iv. Niche (2 marks)
  - v. Nitrification (2 marks)
- b) With reference to any community of your choice, identify and discuss human activities that are responsible for soil erosion. (20 marks)
- c) Suggest ways of alleviating the problem of soil erosion in the community chosen in (b) above. (10 marks)
- (40 Marks)**

**SECTION B: ANSWER ANY TWO QUESTIONS**

**QUESTION 2**

- a) Using examples describe **three** types of fire. (18 marks)
- b) Outline the merits and demerits of fire as an ecosystem management tool. (12 marks)
- (30 Marks)**

**QUESTION 3**

Using any dam as a case study, explain the negative impacts of dam construction on upstream and downstream ecosystems. (30 Marks)

**QUESTION 4**

Identify and discuss the factors influencing the composition of a climax community. (30 Marks)

**QUESTION 5**

- a) Using examples, explain how competition affects the distribution of species in a community. (15 marks)
- b) Discuss the intra-specific interactions of organisms in an ecosystem. (15 marks)
- (30 Marks)**