## UNIVERSITY OF SWAZILAND DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND PLANNING

# MAIN EXAMINATION: MAY, 2012 B.Sc. III, Bed. III

TITLE OF PAPER	:	DRAINAGE BASIN STUDIES
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COURSE NUMBER : GEP 321

TIME ALLOWED

THREE (3) HOURS

**INSTRUCTIONS** 

SECTION A IS COMPULSORY ANSWER ANY TWO QUESTIONS FROM SECTION B ILLUSTRATE YOUR ANSWERS WITH APPROPRIATE DIAGRAMS

**MARKS ALLOCATED** 

QUESTION 1 CARRIES 40 MARKS THE OTHER QUESTIONS CARRY 30 MARKS EACH

### THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR

### Question 1:

(a) Discuss the role of hydrology in relation to the landforms in a drainage basin

(20 marks)

(b) Explain how the drainage basin characteristics are determined. (20 marks)

(40 marks)

#### SECTION B: ANSWER ANY TWO QUESTIONS

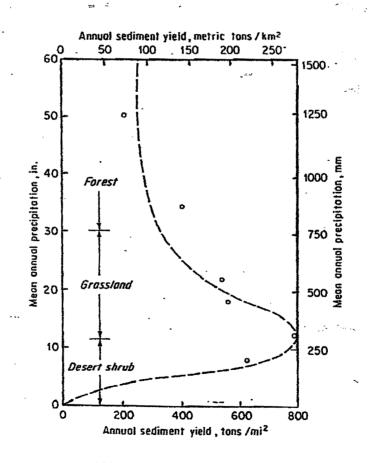
#### **Question 2:**

'The environment is considered as a legitimate user of water'. Discuss the validity of this statement. (30 marks)

#### **Question 3:**

Discuss the factors influencing the variation of the sediment yield in Figure 1.

(30 marks)





# Question 4:

'Needs assessment in drainage basin studies is very important'. Discuss the validity of this statement. (30 marks)

### **Question 5:**

Give an account of the methods used to evaluate the water resources in a catchment.

(30 marks)