

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

**MAIN EXAMINATION: MAY, 2009
B.Sc. III**

TITLE OF PAPER : DRAINAGE BASIN STUDIES

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**

SECTION A: COMPULSORY QUESTION

Question 1

Describe the variables that influence the fluvial geomorphology of a drainage basin. **(40 marks)**

SECTION B: ANSWER ANY TWO QUESTIONS

Question 2

Explain how the measures of drainage basin morphology can be derived. **(30 marks)**

Question 3

Discuss the factors influencing soil erosion. **(30 marks)**

Question 4

- (a) Define sustainability in drainage basin planning. **(10 marks)**
 - (b) Explain the importance of stakeholder participation in drainage basin planning and management. **(20 marks)**
- (30 marks)**

Question 5

Discuss the need for an institutional arrangement in drainage basin management. **(30 marks)**