

UNIVERSITY OF SWAZILAND
DEPARTMENT OF GEORAPHY, ENVIRONMENTAL SCIENCE AND PLANNING

SUPPLEMENTARY EXAMINATION: JULY, 2012

B.Sc. III

TITLE OF PAPER : **DRAINAGE BASIN STUDIES**

COURSE NUMBER : **GEP 321**

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

INSTRUCTIONS : **SECTION A IS COMPULSORY**
ANSWER 2 QUESTIONS FROM SECTION B
ILLUSTRATE YOUR ANSWERS WITH
APPROPRIATE DIAGRAMS

MARKS ALLOCATED : **QUESTION ONE CARRIES 40 MARKS.**
THE REST OF THE QUESTIONS CARRY 30
MARKS EACH

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BY THE INVIGILATOR

SECTION A: COMPULSORY QUESTION

Question 1

- (a) Discuss the scatter of the points in Figure 1 below. (20 marks)
- (b) Explain how human activities influence the sediment yield of a drainage basin. (20 marks)
- (40 Marks)

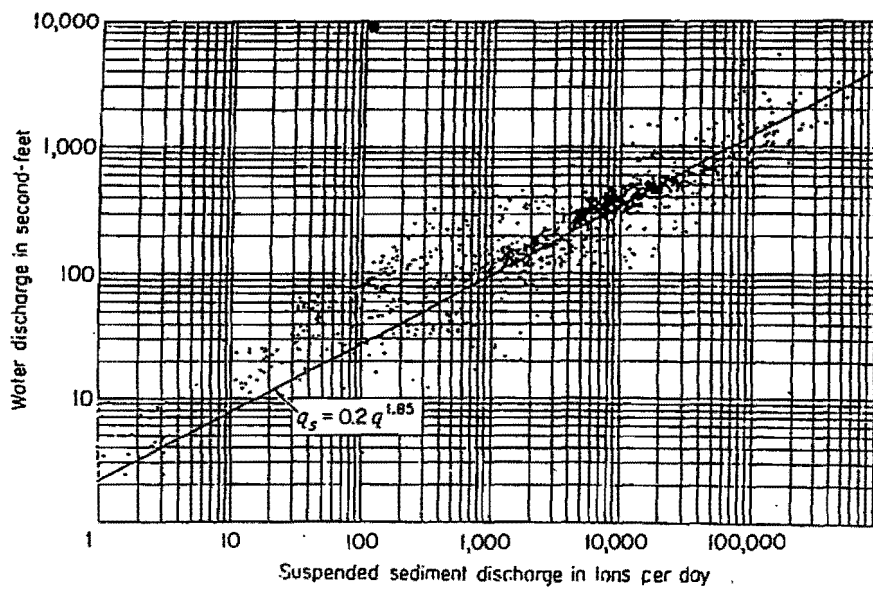


Figure 1 shows the Sediment rating curve for a hypothetical river

SECTION B: ANSWER ANY TWO QUESTIONS

Question 2

Explain the stages of the evolutionary development of a drainage basin. (30 Marks)

Question 3

Discuss the three knowledge areas that are focal in drainage basin planning.

(30 Marks)

Question 4

Examine the issues that the drainage basin planning effort depends on. **(30 Marks)**

Question 5

'Stakeholder participation in water resources development is very important'. Discuss with reference to Swaziland. **(30 Marks)**