



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2010/2011
OPEN, DISTANCE AND E-LEARNING
EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN WATER
AND ENVIRONMENTAL ENGINEERING
SET 527: HYDRAULICS III

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DATE: FRIDAY 8TH JULY 2011

TIME: 8.00 A.M. – 10.00 A.M.

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INSTRUCTIONS

Answer Question One and any other two questions.

Question 1

- a) By use of a sketch show a cross-section through a small earth dam.
- b) The height of a dam depends on the storage required in the reservoir. List the factors you should consider when calculating this height.

Question 2

Define the following terms

- i) Hydraulic structures
- ii) A Rockfill dam

Question 3

- a) List the three components of a rockfill dam and explain the importance of each component.
- b) Explain the advantages of a rockfill dam construction.

Question 4

Outline and explain factors and points that you should consider when constructing a small earth dam.

Question 5

State and explain safety and managerial factors that are seriously taken into consideration with fully constructed and operational dams.