



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2016/2017 ACADEMIC YEAR

SPECIAL/SUPPLEMENTARY EXAMINATION

FOR THE DEGREE OF BACHELOR OF EDUCATION

COURSE CODE: ESM 311

COURSE TITLE: MATHEMATICS EDUCATION


DATE: 27/9/2017

TIME: 11.30-1.30 p.m.

INSTRUCTIONS TO CANDIDATES

Answer Question One and Any other TWO (2) Questions

TIME: 2 Hours

This Paper Consists of 2 Printed Pages. Please Turn Over. 

QUESTION ONE (30 MARKS)

- a) Explain the difference between deductive and inductive approaches of teaching mathematics giving examples of each. Which one is better, give reasons?
(6 marks)
- b) What is the main contribution of Richards Skemp in the teaching of Mathematics, explain with examples?
(5marks)
- c) Draw a lesson plan of duration of 40 minutes and your own topic and subtopics.
(6 marks)
- d) Explain four dangers of textbook teaching.
(4 marks)
- e) Construct a 60 degrees angle and hence prepare a marking scheme for it.
(4 marks)

QUESTION TWO (20 MARKS)

- a. Discuss the importance of using laboratory in the teaching of mathematics
(10 marks)
- b. What are the important equipments in the mathematic laboratory (5 marks)

QUESTION THREE (20 MARKS)

- a) Discuss Robert Gagne's theory of learning mathematics (12 marks)
- b) Explain any three implications of Piaget's theory of learning mathematics
(3 marks)

QUESTION FOUR (20 MARKS)

- a) Justify with any five reasons why a teacher should plan for a lesson before going to class to teach mathematics
(5 marks)
- b) Draw a scheme of work clearly explaining each column of events involved
(10 marks)

QUESTION FIVE (20 MARKS)

- a) What is Lecturer Method of teaching
(2 marks)
- b) Explain four different ways of discovery method of teaching
(8 marks)
- c) Discussion is predominantly used in the learning of mathematics and additionally can be used to develop logical thinking. Explain how to start, sustain, make it worthwhile and end the discussion.
(5 marks)