



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2018/2019

THIRD YEAR, SECOND SEMESTER SPECIAL / SUPPLEMENTARY EXAMINATION  
FOR THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION

### ECT 3350: MATHEMATICS SUBJECT METHODS

DATE: SEPTEMBER 2019

TIME: 2 HOURS

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**INSTRUCTIONS:** Answer question *one* and any other *two* questions.

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#### QUESTION ONE (30 MARKS)

- a) In the recent past Teachers Service Commission (TSC) came up with a policy that makes it mandatory for all teachers in public schools to prepare lesson plans before embarking on the actual lesson teaching.  
Assuming that you have been enlisted to join TSC to advice on quality and standards issues:
- (i) State and explain five components of a lesson plan. (10 Marks)
  - (ii) Explain five reasons why a Mathematics teacher should prepare lesson plan. (10 Marks)
- b) Lecture method is one of the most commonly used method of teaching. Discuss ways in which lecturer method can be enhanced for successful Mathematics teaching. (10 Marks)

#### QUESTION TWO (20 MARKS)

- a) Identify and discuss any six qualities of a good Mathematics text book. (12 Marks)
- b) The influence of Mathematics education has been so fundamental and widespread that being numerate is becoming more important than being literate. Discuss any four educational values of teaching Mathematics in secondary school. (8 Marks)

**QUESTION THREE (20 MARKS)**

- a) Discuss any five reasons why it is important to a Mathematics teacher to prepare lesson plans. (10 Marks)
- b) Discuss any five principles of constructivist theory in the learning of Mathematics. (10 Marks)

**QUESTION FOUR (20 MARKS)**

- a) Discuss any three reasons for assessing learners in Mathematics. (6 Marks)
- b) Using suitable example. Discuss any seven challenges in learning and teaching various KCSE Mathematics concepts. (14 Marks)

**QUESTION FIVE (20 MARKS)**

- a) Discuss any five roles of teaching and learning resources in Mathematics instruction in secondary schools. (10 Marks)
- b) Group discussion is one of the most effective methods of teaching. Discuss ways that a Mathematics teacher can adopt to ensure successful learning among learners. (10 Marks)