



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya

Tel: +254(0) 799 529 958, +254(0) 799 529 959, + 254 (0) 712 524 293,

Website: info@must.ac.ke Email: info@must.ac.ke

University Examinations 2022/2023

FIRST YEAR SECOND SEMESTER EXAMINATION FOR POST GRADUATE DIPLOMA
IN EDUCATION

ECG 4151: METHODS OF TEACHING MATHEMATICS

DATE: APRIL 2023

TIME: 2 HOURS

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

QUESTION ONE (24 MARKS)

- a) Assume that you are planning to teach the concept on using graphical method to solve simultaneous equations

Formulate:

- i. An objective in the cognitive domain
 - ii. An objective in the psychomotor domain
- b) Demonstrate how you would introduce the lesson so as to stimulate the interest of the learners (4 marks)
- c) Explain systematically the steps you would take the learners through while using the confirmatory inquiry based learning (IBL) method to effectively deliver the concept (4 marks)
- d) Evaluate any two categories of instructional resources that you would employ to enhance your mathematics lesson (4 marks)
- e) Examine the purpose of assessment in mathematics (4 marks)
-

- f) The competency based curriculum (CBC) is anchored on a number of core competencies that the learners must achieve. As a mathematics teacher propose how you would help the students acquire the two competencies mentioned during the lesson
- i. Communication and collaboration (2 marks)
 - ii. Critical thinking and problem solving (2 marks)

QUESTION TWO (12 MARKS)

- a) Discuss the importance of micro-teaching to a student teacher (6 marks)
- b) Evaluate three reasons why it is important for a teacher to have a syllabus when planning to teach mathematics (6 marks)

QUESTION THREE (12 MARKS)

- a) One of the objectives of teaching secondary school mathematics as enlisted by KICD is to develop a positive attitude towards mathematics. Articulate three strategies that a teacher should apply in order to help the student realize this objective (6 marks)
- b) Demonstrate the importance of learning theories in teaching and learning process of mathematics (6 marks)

QUESTION FOUR (12 MARKS)

- a) Illustrate characteristics of a good teaching instructional media in form of a chart (6 marks)
- b) KCSE syllabus do not give a teacher complete instructions on what to teach in mathematics. Examine these areas (6 marks)

QUESTION FIVE (12 MARKS)

- a) Evaluate three factors that a mathematics teacher needs to consider when preparing scheme of work (6 marks)
- b) Discuss the challenges faced by teachers in teaching of mathematics in Kenyan secondary schools (6 marks)