



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF EDUCATION

DEPARTMENT OF EARLY CHILDHOOD EDUCATION & EDUCATIONAL
COMMUNICATION & TECHNOLOGY

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR
BACHELOR OF EDUCATION

ECT: 302: TEACHING METHODS-MATHEMATICS

DATE:

TIME:

INSTRUCTIONS

Answer Question One and Any Other Two Questions

1.
 - a) Explain **how you** would introduce Mathematics to a For One Class so as to Stimulate their interest in the subject. (INCLUDE strategies and resources).
(10 marks)
 - b) Explain the steps in the **Demonstration of how to solve simultaneous equations**.
(12 marks)
 - c) Discuss any **four Values** promoted through the teaching of Mathematics. (8 marks)
2. Discuss how each of the following documents assist the teacher in planning for Mathematics Teaching.
(20 marks)
 - i. The Examination Syllabus.
 - ii. The content Syllabus.
 - iii. The Schemes of Work.
 - iv. The Lesson Plan.
3. Prepare a 40-minute Lesson Plan for a practical lesson on Pythagoras Theorem for a right – angled triangle.
(20 marks)
4. Write briefly about the skills tested in following topic areas:
 - a) Equations.
(7 marks)

- b) 3-D Geometry. (7 marks)
 - c) Trigonometric Functions. (6 marks)
5. Explain the significance of **ONE** of the following approaches to the teaching of Mathematics:
- a) The Learning Cycle.
 - b) The Meta-Cognitive approach.
 - c) The Process-Skills approach.
 - d) Problem-solving. (20 marks)