

MACHAKOS UNIVERSITY 2018 EXAMINATIONS
**ECT: 302: TEACHING METHODS-MATHEMATICS –SCHOOL-
BASED.**

INSTRUCTION: Answer Question One and any other Two

- Q1. (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).
- Q2. 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.**
- Q3. Prepare a 40-minute Lesson Plan for a practical lesson on Pythagoras Theorem for a right –angled triangle. (20 marks).
- Q4. Write briefly about the skills tested in following topic areas:
- (i) Equations. (20 MARKS).
 - (ii) 3-D Geometry. (20 MARKS).
 - (iii) Trigonometric Functions. (6 MARKS).
- Q5. Explain the significance of **ONE** of the following approaches to the teaching of Mathematics: (20 marks).
- (i) The Learning Cycle.
 - (ii) The Meta-Cognitive approach.
 - (iii) The Process-Skills approach.
 - (iv) Problem-solving.