



KISII UNIVERSITY

UNIVERSITY EXAMINATIONS

THIRD YEAR EXAMINATION FOR THE AWARD OF THE
DEGREE OF BACHELOR OF EDUCATION(ARTS/SCIENCE)

SECOND SEMESTER, 2021/2022

(FEBRUARY - JUNE, 2022)

ECDI 332: MATHEMATICS SUBJECT METHODS

STREAM: Y3 S2

TIME: 2 HOURS

DAY:

DATE: 00/05/2022

INSTRUCTIONS

- 1. Do not write anything on this question paper.*
- 2. Answer Question ONE [Compulsory] and any TWO questions.*

QUESTION ONE

- What is mathematics education? (2 marks)
- Explain at least two perspectives of the nature of mathematics (4 marks)
- By use of examples differentiate between inductive and deductive approaches to teaching mathematics (3 marks)
- State and explain Jean Piaget theory of learning and its relevance to teaching mathematics (6 marks)
- State the items a mathematics teacher must have before and while teaching and, explain each item's role. (10marks)
- By use of examples, discuss the differences between, expository, exploratory and guided discovery methods of teaching mathematics (5 marks)

QUESTION TWO

- State at least **four** national goals of education in Kenya and explain how the Ministry of Education strives to achieve them? (8marks)
- State at least **four** general objectives of teaching mathematics in Kenya (4 marks)
- Prepare a one week scheme of work from the current KICD mathematics syllabus, and extract one detailed lesson plan from it. (8 marks)

QUESTION THREE

- a. What is microteaching? (3 marks)
- b. Explain at least four reason why it is necessary to micro teach 8marks
- c. Discuss at least three microteaching skills (9 marks)

QUESTION FOUR

- a. State and explain at least **five** individual differences a teacher of mathematics can expect among learners in mathematics classroom (10 marks)
- b. Discuss how a good mathematics teacher can handle each of the five differences above while teaching (10 marks)