



MAASAI MARA UNIVERSITY

SPECIAL/ SUPPLIMENTARY EXAMINATIONS

2020/2021

THIRD YEAR FIRST SEMESTER

**SCHOOL OF EDUCATION
BACHELOR OF EDUCATION**

COURSE CODE: ECI3116

**COURSE TITLE: SPECIAL METHODS IN
MATHEMATICS**

DATE:

TIME:

INSTRUCTIONS TO CANDIDATES

*This paper consists of **THREE** printed pages. Please turn over.*

Answer Question **ONE** and any other **two** questions

Question one (30mks)

- 1) a) State four reasons why a lesson plan is essential in mathematics **(4mks)**
- b) Outline any four reasons that lead to the abolition of “Traditional mathematics Curriculum” in Kenya. **(8mks)**
- c) Explain the three stages in the teaching of mathematical concepts according to Bruner. **(6mks)**
- d) State six behavior’s used by teachers in varying the stimulus in a mathematical lesson. **(6mks)**
- e) Give six reasons why we teach Maths **(6mks)**

Question TWO (20 mks)

- a) (i) Explain Gagne’s contribution in the teaching and learning of mathematics. **(6mks)**
- (ii) State two advantages of his contribution in the teaching of mathematics. **(4mks)**
- (iii) Describe three main components of instructions objective giving one example in each case. **(10mks)**

Question THREE

3 Compare and contrast the work of two psychologists Jean Piaget and Jerome Bruner as they apply to teaching and learning of mathematics. **(20mks)**

Question FOUR

4 The Kenya mathematics curriculum has been changed several times since independence. Discuss any two curriculums and why they were abolished. **(20mks)**

Question FIVE

5 a) Differentiate between mathematics and mathematics education. **(4mks)**

- b)** Prepare a one-week scheme of work for form 1 mathematics on the topic "linear equations" Sub topics; Simultaneous equations in one unknown simultaneous linear equations and formulation and solution of linear equations in one and two unknown from given real life situations. **(8mks)**
- c)** Prepare a lesson plan for the sub topic "Simultaneous equations" include all aspects of an effective lesson plan. **(8mks)**