KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2020/2021 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER

SPECIAL/SUPPLEMENTARY EXAMINATION

FOR DIPLOMA IN EDUCATION

COURSE CODE: EDD 110

COURSE TITLE: MATHEMATICS EDUCATION

DATE: 4TH OCTOBER, 2021   **TIME**: 2:00PM-4:00PM

INSTRUCTIONS TO CANDIDATES

Answer Question One and any other two Questions

TIME: 2 Hours

This Paper Consists of **3 Printed Pages**. Please Turn Over.

ANSWER QUESTION **ONE** AND ANY OTHER **TWO** QUESTIONS.

QUESTION 1 (30 MARKS)

a) To develop positive attitude towards learning mathematics is the first general objective of teaching mathematics at secondary school level. Discuss five ways through which you can help your students realize this objective   (10 Marks)

b) Outline any **four** purposes of assessment in the teaching of mathematics.   (4 Marks)

c) A trapezium has height 4cm and two parallel sides 3cm and 5cm respectively. Prepare a marking scheme for its area.   (4 Marks)

d) Mention any **three** learning and instructional theorists and their main contribution to the learning and teaching of mathematics   (6 Marks)

e) State any six ways of addressing the challenge of underrepresentation of female gender in mathematics.   (6 Marks)

QUESTION 2 (20 MARKS)

a) What is Expository Method of teaching?   (2 Marks)

b) Explain any **four** merits of using investigatory methods in teaching mathematics.   (8 Marks)

c) Explain any **five** implications of games for teaching mathematics.   (10 Marks)

QUESTION 3 (20 MARKS)

a) Draw a format of a lesson plan and clearly explain all the stages involved. (10 Marks)

b) Justify with any **five** reasons why a teacher should plan for a lesson before going to class to teach mathematics.   (10 Marks)

QUESTION 4 (20 MARKS)

a) Explain any **four** implications of Jean Piaget's theory of cognitive development to the teaching and learning of mathematics.   (10 Marks)

b) Discuss Zoltan Dienes 6-stage theory of learning mathematics.   (10 Marks)

QUESTION FIVE (20 MARKS)

a) Describe any **five** circumstances when a teacher should use set induction during a mathematics lesson. (10 Marks)

b) With the aid of examples, describe how a teacher can go about set induction as used in the classroom teaching of mathematics. (10 Marks)