

PECI 121

THARAKA



UNIVERSITY

COLLEGE

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE
OF BACHELOR OF EDUCATION (PRIMARY OPTION)

PECI 121: INTRODUCTION TO BASIC MATHEMATICS CONCEPTS

STREAMS: BED (P)

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 15/04/2020

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS: Answer question ONE any other TWO

QUESTION ONE (30 MARKS)

- (a) Explain the term mathematics [2 marks]
- (b) Explain three objectives of teaching mathematics [6 marks]
- (c) Describe how you would introduce the concept of fractions to children in lower primary [4 marks]
- (d) Explain two pre-number activities among primary school pupils lessons [6 marks]
- (e) Elaborate on difference between the term Accommodation and Assimilation as used Piaget in teaching and learning mathematics. [6 marks]
- (f) Differentiate between a number, numerical and digit [6 marks]

QUESTION TWO (20 MARKS)

- (a) Give an account of Bruner's contributions to teaching and learning mathematics [10 marks]
- (b) Differentiate between a natural number and rational number giving examples. [4 marks]
- (c) Explain how the African society used to keep track of their flocks or counts before the number system [2 marks]
- (d) Differentiate between a mathematical symbol and mathematical formula [4 marks]

QUESTION THREE (20 MARKS)

- (a) State three components of schemes of work at primary school level [3 marks]
- (b) Outline the preparation of a lesson plan to use in lower primary classes [5 marks]
- (c) Solve $3 + 2 \times 6 - 8 \div 2$ of 12 [3 marks]
- (d) Given $A = 1 + 2j$ and $B = 2j - 5$ [4 marks]
Find $2A + 3B$

QUESTION FOUR (20 MARKS)

- (a) Discuss the dimensions of mathematics [10 marks]
 - (b) Differentiate between rote and meaningful types of learning [4 marks]
 - (c) Explain three importance of studying mathematics in primary schools. [6 marks]
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