



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF EDUCATION

DEPARTMENT OF EARLY CHILDHOOD EDUCATION

FIRST YEAR FIRST SEMESTER EXAMINATION FOR

DIPLOMA IN EARLY CHILDHOOD EDUCATION

MATHEMTICS ACTIVITIES

DATE: 16/4/2019

TIME: 8:30 – 11:30 AM

INSTRUCTIONS

Answer Question One and Any Other Two Questions

1. a) Define the following terms. (10 marks)
 - i) Mathematics
 - ii) Mathematical concept
 - iii) Volume
 - iv) Addition
 - v) Subtraction
- b) Describe the **four (4)** computational skills (12 marks)
- c) Explain the following measurement skills (8 marks)
 - i) Capacity
 - ii) Time
 - iii) Speed
 - iv) Area
2. a) Discuss **five (5)** roles of teaching and learning materials in ECDE mathematics activities. (10 marks)
- b) Explain **five (5)** type of teaching and learning material used in ECDE centres. (10 marks)
3. a) Describe **five (5)** the principles of teaching mathematics in ECDE (10 marks)
- b) Analyse **five (5)** objectives of mathematics in ECDE (10 marks)

4. a) Design appropriate instrument for assessing children achievements in mathematics (10 marks)
- b) Discuss the implication of Piaget's theory in teaching mathematics activities in ECDE (10 marks)
5. a) Describe **five (5)** classification activities done in ECDE centres. (10 marks)
- b) Discuss how mathematics develops logical thinking. (10 marks)