



KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER

MAIN EXAMINATION (PART-TIME)

FOR THE DEGREE OF EDUCATION IN EARLY CHILDHOOD

COURSE CODE: ECD 221

**COURSE TITLE: SCIENCE AND MATHEMATICS FOR EARLY CHILDHOOD
EDUCATION**

DATE: 26/05/2022

TIME: 2-4PM

INSTRUCTIONS TO CANDIDATES

Answer Question One and Any other TWO (2) Questions

TIME: 2 Hours

This Paper Consists of 2 Printed Pages. Please Turn Over.



Question One

- a) Explain the importance of science and mathematics in life (5marks)
- b) Discuss Piaget's theory of cognitive development with respect to Early Childhood development (10 marks)
- c) Explain any five objectives of teaching science and mathematics in Early Childhood Education (5 marks)
- c) Develop five activities for introducing number writing to pre-school children (10marks)
- d) State the implication of piaget's Theory for teaching Science and mathematics in Early Childhood Education (5marks)

Question Two

- a) Briefly explain some five points to consider when developing and buying teaching and learning materials for Science and Mathematics activities. (10marks)
- b) Explain five importance of exploration in young children (10marks)

Question Three

- a) Explain five mathematical activities that a teacher would use to teach the concept of temperature in pre-school children (10marks)
- b) Describe the skills and concepts that children need to acquire through science and mathematics activities in pre-school (10marks)

Question Four

- a) Explain factors that a pre-school teacher should take into consideration when providing mathematical experiences to young children (10marks)
- b) Citing relevant examples discuss characteristics within the children that make science learning a natural activity. (10marks)

Question five

- a) Describe any five activities that promote development of science skills. (10marks)
- b) Discuss five methods and approaches of teaching science activities in Early Childhood (10marks)