



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF SCIENCE AND
TECHNOLOGY (MMUST)**

UNIVERSITY EXAMINATIONS

MAIN CAMPUS

2021/2022 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER EXAMINATIONS

MAIN EXAM

FOR

THE CERTIFICATE IN EDUCATION

(EARLY CHILDHOOD EDUCATION)

COURSE CODE: ECD 009

COURSE TITLE: SCIENCE AND MATHEMATICS ACTIVITIES

DATE: 21/04/2022

TIME: 12:00 - 2:00PM

INSTRUCTIONS TO CANDIDATES

Answer Question **One** and any other **Two** questions

TIME: 2 Hour

MMUST observes ZERO tolerance to examination cheating

QUESTION ONE

- a) Define the following terms (5mks)
- (i) Science
 - (ii) Mathematic
 - (iii) Science Education
 - (iv) Early childhood mathematics education
 - (v) Observing
- b) State at least five aims of teaching science and mathematics in elementary schools (5mks)
- b) Mention at least three instructional materials used in teaching science education for PP1 and PP2 (3mks)
- c) Mention at least three instructional materials used in teaching mathematics education for grade one and two (3mks)
- d) As an ECDE teacher trainee, explain at least five ways on how you can introduce science education to preschoolers in an ECDE Centre (5mks)
- e) Briefly explain two categories of teaching methods that mathematics and science teachers in Early Childhood Education needs to know. (4mks)
- f) State five guiding principles that determine teaching methods to be adopted by a teacher in a classroom set up. (5mks)

QUESTION TWO

- a) Explain at least five activities that a teacher would use to promote the skill of recording early school children during indoor and outdoor learning (10mks)
- b) Describe any five methods and approaches for teaching science activities to elementary schools and ECD centers (10mks)

QUESTION THREE

- a) Explain what is meant by questioning (2mks)
- b) Describe at least five questioning skill that you already know applicable in the study of science and mathematics for preschoolers (10mks)
- c) What are advantages of using question strategy when teaching preschool learners (8mks)

QUESTION FOUR

- a) What is evaluation as used in science and mathematics education (2mks)
- b) Describe at least four assessment strategies that teachers in elementary schools can use in assessment of mathematics evaluation (8mks)
- c) Explain at least five challenges that face teaching of science and mathematics education to early learners in Kenyan schools (10mks)