



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF EDUCATION**

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION

ECDE

SECOND YEAR 2ND SEMESTER 2018/2019 ACADEMIC YEAR

MAIN CAMPUS

COURSE CODE: EEC 3221

COURSE TITLE: MATHEMATICS ACTIVITIES

EXAM VENUE:

STREAM: BED ECDE

DATE: 19/08/19

EXAM SESSION: 3.00 – 5.00PM

TIME: 2 HOURS

INSTRUCTIONS

- 1. Answer ALL THE Questions in section A and ANY other two questions in section B**
- 2. Candidates are advised not to write in question paper**
- 3. Candidates must hand in their other booklet to the invigilator while in the examination room**

- (a) Define the following terms
- (i) Number recognition
 - (ii) Number value
 - (iii) Attribute
 - (iv) Time (4 marks)
- (b) Highlight three levels of knowing according to Bruner's Theory citing characteristics of each level (6 marks)
- (c) Describe using three suitable activities, how you will teach '*speed*' as a measurement (6 marks)
- (d) State and explain six instances that will make an ECDE teacher use demonstration method in a lesson (6 marks)
- (e) Suggest 4 activities for teaching pre-school children about number writing (4 marks)
- (f) Identify four activities that an ECDE teacher can use to make children understand the concept of number value (4 marks)
- 2 (a) Identify and explain any 5 implications of Piaget and Bruner's Theories in teaching Mathematics in an ECDE classroom (10 marks)
- (b) Examine the nature and scope of mathematics (10 marks)
- 3 (a) Develop activities for introducing children to the following concept areas
- (i) Sorting and grouping
 - (ii) Matching and pairing
 - (iii) Ordering and sequencing
 - (iv)Time (20 marks)
- 4 (a) Explain five advantages of the discovery method of learning Mathematics to ECDE learners (10 mks)
- (b) Suggest and Discuss five techniques a teacher may employ to help learners cope with the problem of mathematics anxiety (10 marks)
- 5 (a) Discuss the role of the teacher when providing mathematical experiences to Children (12 marks)
- (b) Examine four activities that you would use to build a solid foundation for Mathematics in young learners (8 marks)