JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF EDUCATION AND SOCIAL SCIENCES

UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF EARLY CHILDHOOD DEVELOPMENT EDUCATION

2ND YEAR 2ND SEMESTER 2013/2014 ACADEMIC YEAR

CENTRE: KISUMU SCHOOL BASED

COURSE CODE: EEC 3221

COURSE TITLE: MATHEMATICS ACTIVITIES

EXAM VENUE: STREAM: BED (Early Childhood)

DATE: 16 /12/13 EXAM SESSION: 9.00 – 11.00 AM

TIME: 2 HOURS

Instructions:

1. **Answer question 1 (compulsory) and ANY other 2 questions.**
2. **Candidates are advised not to write on the question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

1(a) Define the following terms as used in mathematics activities

(i) Symbolic knowledge (2 marks)
(ii) Enactive knowledge (2 marks)
(iii) Iconic knowledge (2 marks)

(b) Define the term classification as used in mathematics activities (2 marks)

(c) Explain the three groups that can be carried out during classification (8 marks)

(d) Explain how parents can assist their children develop positive attitudes towards mathematics. (14 marks)

2. With illustrations, describe how you can use the following activities to enhance acquisition of mathematics skills and concepts.

(a) Emptying and filling (4 marks)

(b) Sorting and grouping (4 marks)

(c) Matching and pairing (4 marks)

(d) Differentiate between formal and informal assessment (8 marks)

3. Explain with examples, the implications of Piaget's theory of cognitive development to the learning and teaching of mathematics activities. (20 marks)

4. (a) Write down three methods of assessing pre-school children (3 marks)

(b) Explain with examples why observation is the most widely used method of evaluation in Pre-school learning environment (12 marks)

(c) Explain the nature of mathematics for young children (5 marks)

5. Citing relevant Examples, describe ten objectives of teaching mathematics activities to young children (20 marks)