



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2011/2012

KERICHO CAMPUS
SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
EDUCATION (EARLY CHILDHOOD EDUCATION)

ECE 304: METHODS OF TEACHING SCIENCE AND MATHEMATICS IN EARLY
CHILDHOOD EDUCATION

DATE: Thursday 5th March 2012

TIME: 2.00p.m – 4.00p.m

INSTRUCTIONS

ANSWER ALL THE QUESTIONS IN SECTION A AND ANY TWO IN SECTION B
(30MARKS)

SECTION A

1. Explain the term 'science' as used in early childhood education. [2marks]
2. Explain any four roles of a science teacher in Early Childhood Education. [4marks]
3. Describe Five key characteristics important for learners of science. [5marks]
4. Explain any Four general objectives of mathematics activities in Early Childhood. [4marks]
5. Explain Three types of scientific inquiry. [4marks]
6. Differentiate between the following terms:-
 - a) Predicting
 - b) Hypothesizing [4marks]
7. List and Explain the guide lines that can be incorporated when making a mathematics lesson plan. [4marks]
8. Explain any Three attitudes that learners are required to model as scientists. [3mark]

SECTION B: Answer any two Questions in this section. (40marks)

9. The 5-E model builds on the learning, cycle model. Explain the Five phases sequentially. [20marks]
10. Explain six types of assessments that guide an inquiry science instruction. [20marks]
11. Explain four steps that can help guide teachers when planning and designing a science lesson. [20marks]
12. a) Explain the Two theoretical explanations of mathematics as advanced by John Dewey. [10marks]
- b) Describe the strategies for mathematics instructions. [10marks]