KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION (EARLY CHILDHOOD EDUCATION)

ECE 209: STATISTICAL, TESTS MEASUREMENT AND EVALUATION

DATE: Tuesday, 30th November, 2010 TIME: 8.00 a.m. – 10.00 a.m.

INSTRUCTIONS:

Answer **ALL** questions in Section A and any **TWO** in Section B.

Section A:

Answer **ALL** questions in this Section. (30 marks)

1. a) State four factors that one should consider when writing instructional objectives. (4 marks)

   b) Give an example of an a appropriate instructional objective for preschool children in any activity area. (2 marks)

2. Given that the mean and standard deviations for a set of scores are 15 and 3 respectively, convert the following scores:-

   19, 15, 10

   Convert these scores into:

   a) Z- Scores (3 marks)

   b) Stanines (3 marks)

3. A class collected data on their shoe sizes and presented it in the table below:

Shoe size	Frequency
3	2
4	7
5	6
6	5
7	3
8	2

Calculate:-

a) the mean

b) the median

c) the mode and

d) the range

(6 marks)

4. Using examples, state and describe three factors that are likely to influence the validity of a test. (6 marks)

5. Calculate the median for the following score distribution:

2, 3, 4, 5, 6, 6, 6, 7, 8, 9, 10, 11

(6 marks)

SECTION B:

Answer any **TWO** questions – (40 marks)

6. Describe fully, citing relevant examples, the four types of evaluation and provide a situation where each of these evaluations could be suitable in early childhood.

(20 marks)

7. The following data show the scores of a group of children on a standard intelligence quotient (IQ) test and the scores obtained in a computer game.

Child	IQ	Score
1	100	96
2	110	75

3	95	93
4	105	90
5	120	85
6	125	80
7	118	84
8	130	78
9	115	86
10	123	89

a) Calculate the Spearman's rho correlation coefficient for the relationship between IQ and performance in the game (15 marks)

b) Does the performance in the game depend on the IQ of the player? Explain. (5 marks)

8. Convert the following scores into stanines and explain how you would go about grading the scores:

20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10 (20 marks)

9. a) Using class intervals 98 – 100, 95 – 97 and son on, convert the following scores into a group frequency distribution.

99	98	97	95	97	90	96	94
93	92	90	89	87	91	84	88
87	89	90	92	93	86	84	83
86	85	83	84	86	98	94	93
85	95	97	93	83	85	83	83

(5 marks)

b) Calculate the mean score using an assumed mean of 90 (6 marks)

c) Calculate the standard deviation (7 marks)

d) Calculate the variance (2 marks)