MACHAKOS UNIVERSITY

University Examinations 2022/2023

SCHOOL OF EDUCATION

DEPARTMENT OF EARLY CHILDHOOD EDUCATION COMMUNICATION AND TECHNOLOGY

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF EDUCATION (EARLY CHILDOOD EDUCATION)

ECE216: STATISTICS, TESTS AND MEASUREMENT

DATE: **TIME:**

INSTRUCTIONS

INSTRUCTIONS: Answer Question 1 and any other TWO.

1. As educators, we watch, talk to, listen to, challenge and interact with children all the time. It is through this process that we truly find out about the children we work with, what they know, understand and can do.

   i. **Explain <u>five ways</u> in which this approach is useful when assessing children.** (10 marks)

   ii. Complete the table below. (2 marks)

COMPETENCE LEVEL	FREQUENCY F	CUMULATIVE FREQUENCY
Below Expectation	28	
Approaching Expectation	34	
Meeting Expectation	46	
Exceeding Expectation	12	

   iii. Draw a graph with competence levels on x-axis and frequency on the

y-axis. (6 marks)

iv. In which class of competence does the median fall? (2 marks)

v. On the same graph, draw the frequency polygon. (5 marks)

vi. Draw the cumulative frequency curve on a separate page. (5 marks)

2. Explain and Illustrate the circumstances under which you would use each of the following methods of assessment for young children at Preprimary Level 2:

(i) Observation. (4 marks)

(ii) A Checklist. (4 marks)

(iii) An Oral Interview (4 marks)

(iv) Task completion test (4 marks)

(v) Written Test (4 marks)

3. (a) Construct a test involving matching items and worth 5 marks. Provide a marking scheme. (10 marks)

(b) Explain how you would develop the criteria for classifying a learner as:

Below Expectation; Approaching Expectation; Meeting Expectation; and Exceeding Expectation, with reference to a named activity in one of the learning areas (Mathematical Activity, Language Activity or Environmental Activity). (10 marks)

4. Explain <u>five</u> aspects a teacher would consider in assessing each of the following:

(i) Language Development. (10 marks)

(ii) Character Participation. (10 marks)

5. Test scores have the following distribution:

3,3,3,6,4,4,9,3,2,3,6,5,9,4,2,12,14,14,16,19,22,25,27,30,32,36,35,37,41,45,45,56,47,48,48,50,54,57,58,60.

(a) Complete the frequency table below: (8 marks)

CLASS INTERVAL	MID-POINT X	TALLY	FREQUENCY f	FREQUENCY X MID-POINT f x X
0-10	5			
10-20	15			
20-30	25			
30-40	35			
40-50	45			
50-60	55			
TOTALS				

(b) Using a suitable scale, draw the graph of frequency versus class interval.

(3 marks)

(c) Calculate the mean for the data in this table. (3 marks)

(d) Calculate the position and value of the median. (2 marks)

(e) Draw the cumulative frequency curve. (4 marks)