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KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR
III..... YEAR ... SEMESTER 2
MAIN EXAMINATION

FOR THE DEGREE OF BACHELOR OF EDUCATION
ARTS/SCIENCE (REGULAR)

COURSE CODE: PSY 321

**COURSE TITLE: EDUCATION MEASUREMENT AND
EVALUATION**

DATE: 07/10/2021

TIME: 9.00-11.00AM

INSTRUCTIONS TO CANDIDATES

Answer Question One and Any other TWO (2) Questions

TIME: 2 Hours

Question One (30mks)

- (a) State and explain three errors committed by examiners (6mks)
- (b) Indicate the suitable scales of measurement for each of the following variables
- (i) Weights of newborn babies in a hospital (1mk)
 - (ii) Identification card numbers of employees (1mk)
 - (iii) The positions of learners in an end-semester examination (1mk)
 - (iv) The scores of KIBU 3rd Year students in a Statistics CAT test (1mk)
- (c) The following scores were obtained by 30 Form 1 students in an English test:

46 31 18 39 40 38

37 19 15 26 14 37

24 41 18 19 21 25

31 10 20 21 32 46

20 30 32 27 31 37

- (i) Use the above scores to prepare a grouped frequency distribution using a class interval size 5 and starting with 10-14 as your lowest class interval (6mks)
- (ii) Prepare cumulative frequencies above and below (2mks)
- (iii) For the grouped data, determine the following:
 - i. Modal class (1mks)
 - ii. Median (3mks)
 - iii. Mean (3mks)
- (iii) Determine the range for the grouped data. (1mk)
- (iv) Compute the variance and standard deviation for the grouped data. (4mks)

Question Two (20mks)

- (a) Distinguish between the following terms:
- (i) Reliability and validity (2mks)
 - (ii) Norm-referenced and criterion-referenced testing. (2mks)
 - (iii) Face validity and logical validity. (2mks)
 - (iv) Statistic and statistics (2mks)
 - (v) Scatter plot and frequency polygon using sketches (4mks)
- b) Discuss four roles of evaluation in an education system (8mks)

Question Three (20mks)

In a mock examination, the overall mean score was 50 and the standard deviation 10. Assuming that the scores were normally distributed and the classes which did the mock had 300 pupils altogether:

- (a) How many pupils scored marks between 40 and 70? (4mks)
- (b) How many scored between 55 and 75? (3mks)
- (c) Which score separates the upper 30% of scores from the lower 70% in the mock examination (5mks)
- (d) Discuss four factors affecting reliability of a test (8mks)

Question Four (20mks)

(a) Define the term difficulty index of a test item? (2mks)

(b) Suppose the following were scores of a small class in two tests, test A and test B. test A is taken as variable X and while test B is taken as variable Y

Student	Test A (X)	Test B (Y)
Muchoki	5	4
Wanjala	6	6
Otieno	5	5
Langat	3	2
Juma	2	3
Osoro	3	4

- i. Plot a scatter diagram (4mks)
- ii. Compute the Spearman Rank correlation coefficient p (rho) for test A and B for the class . Interpret the value of p . (6mks)
- (c) Discuss four measures taken by education stakeholders to minimize examination malpractice in learning institutions (8mks)

Question Five (20mks)

- (a) Discuss four factors that would make you prefer essay test format in constructing a test (8mks)
- (b) Explain any three evaluation techniques used in school (6mks)
- (c) Using a sketch, describe 3 things that are considered when constructing an ogive or commulative frequency polygon (6mks)