



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, SPECIAL NEEDS EDUCATION
AND EARLY CHILDHOOD EDUCATION
FOURTH YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF
EDUCATION

EPS 400: EDUCATIONAL TESTING AND MEASUREMENT

DATE: 26/7/2017

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

Answer Question One and Any Other Two Questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Distinguish between the following terms
- Parameter and statistics
 - Descriptive and inferential statistics
 - Histogram and frequency polygon
 - Measurement and evaluation (8 marks)
- b) For each of the following instances, state the level or scale of measurement involved and indicate if continuous or discrete variable
- The number of Jerseys of basketball players
 - The weight of students in fourth year Kiswahili class at Machakos University
 - Students scores in a mathematics test
 - Classification of Machakos University Students by their respective counties.
 - Ranking of school management by education County commissioner designated as excellent, best, satisfactory and worse. (10 marks)
- c) The following data (scores) is a distribution of test marks obtained from a form 2 English test
- 22, 25, 18, 21, 20, 28, 18, 15, 19, 23, 27, 29, 20, 22, 20, 19, 26, 28

Compute the following:

- i. Mode (1 mark)
 - ii. Median (2 marks)
 - iii. Arithmetic mean (2 marks)
 - iv. Mean deviation (2 marks)
 - v. Standard deviation (3 marks)
- d) Using the measures of central tendency in (i) to (ii) above, describe
- i. The shape of the distribution (1 mark)
 - ii. The performance of the students (1 mark)

QUESTION TWO (20 MARKS)

- a) i) Explain the meaning of the term “cheating” in examinations. (2 marks)
- ii) Highlight six reasons why some examinees engage in examinations cheating during public national examinations in Kenya. (6 marks)
- b) Differentiate between the following terms
- i. Predictive validity and concurrent validity
 - ii. Test and examination
 - iii. Formative evaluation and summative evaluation
 - iv. Skewness and kurtosis
 - v. Test- retest and split –half methods of estimating reliability of a test
 - vi. Criterion – referenced and norm-reference tests (12 marks)

QUESTION THREE (20 MARKS)

- a) The following table shows a summary of student’s responses on a multiple choice item (or question)

Group	Options				Omits	Total
	A	B	C*	D		
Upper group	5	0	49	6	0	60
Lower group	24	0	28	5	5	60

(C*) is the key.

- i Calculate the item difficulty index(P)and the item discrimination index(D) (5 marks)
- ii Comment on the quality of the item using the item analysis data obtained in (i) above. (2 marks)
- iii Evaluate the effectiveness of each distractor (3 marks)

- b) Explain five factors to consider when choosing the item format to use in a class test. (10 marks)

QUESTION FOUR (20 MARKS)

Discuss the importance of tests and measurements as used in a school situation (20 marks)

QUESTION FIVE (20 MARKS)

- a) Describe three ways in which the reliability of essay items can be increased. (6 marks)
- b) Discuss three challenges encountered in administration of public examinations in your County (6 marks)
- c) Explain the various formats of objective test items (8 marks)