



MACHAKOS UNIVERSITY

University Examinations 2019/2020 academic year

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, SPECIAL NEEDS EDUCATION

DECEMBER SESSION EXAMINATION FOR

BACHELOR OF EDUCATION

EPS400: EDUCATIONAL TESTING AND MEASUREMENTS

DATE: SCHOOL BASED

TIME:

INSTRUCTIONS

Answer Question One and Any Other Two Questions

QUESTION ONE (30 MARKS)

- a) Differentiate between each of the following pairs of terms
- Positively skewed and Negatively skewed distributions
 - A sample and a population
 - Inferential and Descriptive statistics
 - An Ogive and a Histogram
 - Reliability and Validity of a test (10 marks)
- b) State the scale (level) of measurement and type of variable (continuous or discrete) for each of the following.
- The positions of learners in an end of term examinations
 - The scores of form 1 students in a Kiswahili test
 - Classification of students by hostels of residence
 - Age of workers in a factor
 - Classification of graduates into First Class, Second Class, Pass, Fail. (10 marks)
- c) Discuss two purposes of tests and measurements in a school situation to each of the following:
- Teacher

- ii. Student
 - iii. Administration
 - iv. Guidance and Counsellor
 - v. Parent
- (10 marks)

QUESTION TWO (20 MARKS)

- a) State five characteristics of the Normal Curve. (5 marks)
- b) Outline five factors that influence the reliability of a test (5 marks)
- c) Explain how each of the factors in (b) above may influence the reliability of a test (10 marks)

QUESTION THREE (20 MARKS)

The data below shows a sample of scores obtained on a Form Two English test:

18, 25, 21, 15, 19, 18, 20, 31, 20, 22, 18, 20, 28, 18, 16, 17, 15, 23, 14, 22.

Compute the following measures of ;

- a) Central tendency
 - i. Mode (2 marks)
 - ii. Median (2 marks)
 - iii. Arithmetic mean. (3 marks)
- b) Measures of Variability
 - i. Range (2 marks)
 - ii. Mean deviation (4 marks)
 - iii. Standard deviation. (4 marks)
- c) Using the measures obtained in (a) and (b) above,
 - i. Interpret the distribution of the scores (2 marks)
 - ii. Explain the performance of the students in the subject (2 marks)

QUESTION FOUR (20 MARKS)

- a) Explain five factors that influence the selection of item format that a teacher may use in a class test. (10 marks)
- b) Explain five challenges encountered in the administration of national examinations in Kenya. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Explain the differences between the following sets of terms;
- i. Summative and Formative evaluation
 - ii. Achievement test and performance test
 - iii. Test-retest and parallel form methods of estimating reliability
 - iv. Content validity and construct validity
 - v. Measures of variability and measures of relationship (10 marks)
- b) Discuss five roles that the Kenya Certificate of Secondary Education (K.C.S.E.) Examination plays in the Kenya system of education. (10 marks)