



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2009/2010

OPEN, DISTANCE AND E-LEARNING EXAMINATION FOR THE DEGREE OF MASTER OF EDUCATION (GUIDANCE AND COUNSELLING)

EGC 519: PSYCHOMETRICS

DATE: Thursday 22nd July, 2010

TIME: 2.00 p.m. – 5.00 p.m.

INSTRUCTIONS

Answer ALL the questions.

1.
 - i. Define Validity. [2 marks]
 - ii. Discuss the **three** types of validity bringing out how each is determined. [3 marks]
 - iii. Discuss how a test or instrument can be made sound right from offset. [5 marks]
2. Discuss **five** purposes of tests. [5 marks]
3.
 - a) Name three test properties that influence test reliability. [3 marks]
 - b) Discuss how these properties can be manipulated to increase test reliability. [3 marks]
 - c) Suppose a statistical test has a reliability coefficient of 0.64 with a standard deviation of 10.
 - i. Compute the test's standard error of measurement. [2 marks]
 - ii. If a student scores 85 marks on the test, what would be the
 - I) 90%
 - II) 95%Confidence intervals within which his true score would lie. [4 marks]
4.
 - a)
 - i. Describe the **three** commonly used methods of estimating reliability coefficient. [5 marks]

- ii. Distinguish between reliability and standard error of measurement. [2 marks]
- b) Discuss Generalizability and Reliability Theories bringing out differences and similarities. [6 marks]
5. i. Describe what are typical performance tests and maximal performance tests. [2 marks]
- ii. Discuss how would assess personality. [4 marks]
- iii. Discuss **individual** and **group** tests with appropriate examples in each case. [2 marks]
6. Discuss the differences of Objective and Essay tests. [4 marks]
7. Explain the following as they relate to item analysis
- a) Item difficulty [2 marks]
- b) Item discrimination [2 marks]
- c) Distracters (distractors) [2 marks]
8. i. Discuss why raw scores have to be converted to standard scores and normalized scores. [2 marks]
- ii. Distinguish between standardized scores and normalized scores. [2 marks]
- iii. When are standardized and normalized equal? [2 marks]
- iv. Given that a raw score distribution on a given test is normal with mean 50 and variance 16. Complete the table below using this information on relevant values of z scores, percentile ranks, T scores and stanines:

Raw score	Z score	Percentile rank	T score	stanine
60				
58				
54				
48				
44				
42				

[6 marks]

.....