



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY  
SCHOOL OF EDUCATION  
UNIVERSITY DRAFT EXAMINATION FOR BACHELOR OF EDUCATION  
2017/2018 ACADEMIC YEAR 4 SEMESTER 1**

**MAIN CAMPUS**

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**COURSE CODE: PSY 410**

**COURSE TITLE: EDUCATIONAL TESTS & MEASUREMENTS**

**EXAM VENUE:**

**DATE:**

**MODE:**

**TIME: 2 HOURS**

**EXAMINATION SESSION:**

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**Instructions:**

1. Answer question 1 (Compulsory) and ANY other 2 questions.
2. Candidates are advised not to write on the question paper.
3. Candidates **MUST** hand in their answer booklets to the invigilator while in the examination room.

1(a). Define the following terms:

(i). Test

(ii) Measurement

(iii) Kurtosis

(iv) Stanines

(v) Construct validity (5 mks).

(b). State FIVE characteristics of a normal curve (5 mks)

(c). The following scores were obtained by students in a psychology quiz. 19, 23,5,4,1,27,3,9,17. Calculate the standard deviation (3 mks).

(c). Psychology students at a university were involved in a research which investigated the relationship between religiosity and happiness. The table below shows scores for religiosity and happiness as were obtained after the research.

Religiosity Scores	56	75	45	71	61	64	58	81	77	61	44	56	57	81
Happiness Scores	66	72	41	60	64	55	60	76	68	61	32	44	45	61

(i) By using Pearson product moment correlation, determine the correlation co-efficient between the two sets of scores (12 mks)

(ii) Interpret the value of r obtained above (1 mk)

(d) An educational psychologist obtained the reliability of a given half test with 15 items as 0.67. What would be the reliability of a full test? (2 mks).

(e) Between validity and reliability, which one is the most important and why? (2 mks).

2. (i) Explain the Classical theory of reliability and its assumptions (10mks)

(ii) Explain FIVE aspects that you can enhance to increase the reliability of a test (10 mks).

3. Discuss the scaling theory as used in measurement (20 mks).

4. (i) Critique the mean and mode as measures of central tendency (8 mks).

(ii) Explain the FOUR methods of estimating reliability (12 mks).

5. a (i) Distinguish between item difficulty and item discrimination (2 mks).

(ii) Under what circumstances does a test discriminate positively and when does a test item discriminate negatively? (4 mks).

b In a given test, students who were superior and some inferior ones chose an alternative from a multiple choice as indicated in the table below:

	A	B	C	D*
Upper Group (RU)	16	5	3	6
Lower Group (RL)	2	10	6	12

(i) If the correct answer is D, calculate the item discrimination index of the test item (3mks)

(ii) Interpret the value obtained (1 mk)

(iii) A psychology test was given to 156 students. Item one of the test was on nature/nurture debate and was attempted by 145 students but 92 of them got the item correct. Calculate the item difficulty index of the item (3 mks)

(iv) Distinguish between a uni-modal and bi-modal distribution (2mks)

(v) Distinguish between a positively skewed distribution and a negatively skewed distribution (2mks)

(vi) State THREE ways in which attest can be used to make instructional decisions at university (3 mks)

**END**