THE OPEN UNIVERSITY OF SRI LANKA

BACHELOR OF EDUCATION (NATURAL SCIENCES)

FINAL EXAMINATION 2007 – LEVEL 06

ESU 4205– MEASUREMENT AND EVALUATION IN EDUCATION

ESU 4304 – MEASUREMENT AND EVALUATION

DURATION: THREE (03) HOURS

DATE: 30th August 2007 **TIME: 1.30 p.m. – 4.30 p.m.**

Answer all the questions in Part I and any <u>three</u> questions from Part II.

PART – I

01. Citing examples, explain three main features of educational measurement.

02. What do you mean by measures of central tendency? State three measures of central tendency and define one of them.

03. Explain what is meant by 'content validity' of a test.

04. Define 'Z-score'. Calculate the Z-score corresponding to a mark 65 of a distribution whose mean is 55 and the standard deviation is 15.

05. Explain what is meant by skewness of a distribution of measurements. Explain the two types of skewness using diagrams.

06. Define 'mental age'. What is the relationship between mental age and intelligence quotient?

07. What is meant by the 'discriminating ability of a test item. Explain using an example.

08. What is an 'aptitude'? State two types of aptitudes and describe them briefly.

PART – II

09. 'Open essay type test questions could be converted into structured essay type test questions to minimize the disadvantages of open essay type questions'

i. Explain the differences between open essay type questions and structural essay type questions.

ii. a) Construct an open essay type question from a subject you teach, and

b) Convert the above question in to a structured essay type question.

ii. Show three disadvantages of an open essay type test question and explain how you could minimize those disadvantages by converting it into a structured essay type questions.

10. Write short notes on any four of the following.

i. Diagnostic tests.
ii. Validity of a test item.
iii. Socio metric tests and socio grammer
iv. Factors to be considered when constructing a multiple choice type test question.
v. Standardized tests.
vi. Table of specifications or Blue print used in test construction.

11. i. State three main characteristics of a normal probability curve.

ii. The distribution of marks obtained by 1200 students in a language test corresponds to a normal probability curve. The mean and the standard deviation of these marks are 48 and 12 respectively.

a) If 5% of the students obtained 'A' grades what is the minimum mark required for an 'A' grade.

b) If the minimum mark required for a pass is 36, how many students would have passed this test.

12. Following are the marks obtained by 30 students in a class at an year-end English test.

50	38	25	62	15	86	10	75	20	28
80	65	53	40	55	42	30	68	82	45
45	58	70	50	40	35	60	46	47	32

i. Prepare a frequency distribution for the above set of marks taking (37-48) as one of the class intervals.
ii. Calculate the mode and median of this distribution of marks.
iii. Taking assumed mean to be in the class interval (37-48), calculate the arithmetic mean.
iv. Calculate the standard deviation of this distribution.

13. The following table indicates the Maths, Science and English marks obtained by three students. A, B and C. At the bottom of each subject column their means and standard deviations are also indicated.

	Maths	Science	English
A	40	50	60
B	60	40	50
C	50	60	40
	$\bar{x}$=50	$\bar{x}$=45	$\bar{x}$=55
	SD =10	SD=15	SD=20

a) Who is the best student among A, B and C?

b) Which subject has shown the best performance?

c) What will be the science marks of A according to Macall's scale?

d) Convert English marks of c into Hull's scale.