THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF EDUCATION
DEPARTMENT OF SPECIAL NEEDS EDUCATION
POSTGRADUATE DIPLOMA IN SPECIAL NEEDS EDUCATION
PROGRAMME – 2022/2023
FINAL EXAMINATION – 2023
SNP8333/SNP8443– MEASUREMENT & EVALUATION IN SPECIAL NEEDS EDUCATION

DURATION – THREE (03) HOURS

Date: 10.12.2023 Time: 1.30 p.m. – 04.30 p.m.

Answer <u>All</u> Questions in Part I and any <u>three (03)</u> questions from Part II. A Non scientific Calculator can be used for simple calculations.

PART - I

01. Differentiate the concepts 'assessment' and 'evaluation'.

02. Explain using examples, what are central tendency measures.

03. List out **five (05)** characteristics of the normal probability curve.

04. i. What is meant by a norm table?
ii. Explain in **brief two (02)** norm tables used in educational evaluations.

05. Explain in brief what is meant by socio-metry citing an example.

06. i. What is a table of specification?
ii. Mention **two (02)** advantages of using a table of specifications when preparing a test.

07. Explain in brief why it is difficult to measure affective development.

08. i. What is 'standard score' or 'Z-score'?
ii. Calculate the standard score corresponding to a raw mark 78 of a distribution in which arithmetic mean and the standard deviation are 48 and 12 respectively.

(5 x 8 = 40 marks)

PART - II

09. i. What is meant by an objective type test. (02 marks)

ii. Write **three (03)** advantages and **three (03)** disadvantages of an objective type test. (06 marks)

iii. Name **four (04)** types of items in objective type tests and give an example for each type. (04 marks)

iv. Explain **two (02)** important factors to be considered in constructing one of the above mentioned items. (04 marks)

v. "Marking answer scripts of essay type tests is subjective". Explain this statement using at least **two (02)** important factors. (04 marks)

10. i. What is meant by the 'psychomotor development" of a child. (02 marks)

ii. Explain Simpson's classification of Psychomotor Domain. (07 marks)

iii. Briefly explain citing examples the aspects that are assessed in Psychomotor activities. (04 marks)

iv. Name the instruments used for measuring each of the above aspects and explain one of those using a suitable example. (04 marks)

v. Evaluate the importance of assessing Psychomotor skills for the total development of children in the classroom teaching-learning process citing suitable examples. (03 marks)

11. i. Explain in brief, what is meant by "school based assessment" (03 marks)

ii. State **three (03)** main characteristics of this assessment procedure. (03 marks)

iii. Explain how do you conduct school based assessment in relation to a subject you wish to teach. (05 marks)

iv. Discuss **three (03)** main problems faced by teachers in implementing this assessment procedure. (09 marks)

12. Marks obtained by 40 students in an examination are given below, in the following table.

81	09	96	47	50	19	77	42
49	62	76	65	47	30	59	33
35	69	50	25	55	42	80	60
58	96	73	70	55	13	74	43
29	45	57	79	58	64	38	89

i. Prepare a frequency distribution for the above set of marks taking (40 – 51) as one of the class intervals. (03 marks)

ii. Calculate the mode and median for this distribution. (05 marks)

iii. Considering the assumed mean of the above set of marks to be in the class interval (40-51), calculate the arithmetic mean. (06 marks)

iv. Calculate the standard deviation of the distribution of marks. (06 marks)

13. i. Explain the terms 'correlation' and 'correlation coefficient' (04 marks)

ii. Explain with an example, what is meant by 'negative correlation' (02 marks)

iii. Marks obtained by 10 students for Mathematics and Dancing subjects at a year end examination are given below.

Student / Subject	A	B	C	D	E	F	G	H	I	J
Maths	78	73	85	75	88	59	58	78	59	80
Dancing	61	68	50	65	70	63	70	57	55	61

a. Calculate the rank difference correlation coefficient between Mathematics and Dancing marks. (11 marks)

b. Comment on the value you obtained for the correlation coefficient. (03 marks)

14. Marks obtained by 2500 students in an examination are distributed according to the normal probability curve. The arithmetic mean and the standard deviation of this distribution are 50 and 10 respectively.

i. Find the number of students who scored between 35-60 marks. (05 marks)

ii. Find the number of students who scored less than 40 marks. (05 marks)

iii. If the best 5% of students are expected to be awarded certificates, find the minimum mark required to receive a certificate. (05 marks)

v. What is the pass mark if 70% of the students are to be passed. (05 marks)

Some important formulas / වැදගත් සූත්‍ර කිහිපයක්
சில முக்கிய சூத்திரங்கள்

$$\rho = \left[1 - \frac{6\sum D^2}{N(N^2-1)}\right]$$

$$A.M_{(\bar{x})} = \left(A + \frac{i\sum fd}{N}\right)$$

$$SD_{(\sigma)} = i\sqrt{\frac{\sum fd^2}{N} - \left(\frac{\sum fd}{N}\right)^2}$$

$$\gamma_{xy} = \frac{\sum XY}{\sqrt{(\sum X^2)(\sum Y^2)}}$$

$$\gamma_{xy} = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sqrt{\sum(x - \bar{x})^2 \times \sum(y - \bar{y})^2}}$$

$$\gamma_{xy} = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$