THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF EDUCATION
DEPARTMENT OF SPECIAL NEEDS EDUCATION
POSTGRADUATE DIPLOMA IN SPECIAL NEEDS EDUCATION
PROGRAMME – 2024/2025
FINAL EXAMINATION – 2025
SNP8333/SNP8443 – MEASUREMENT & EVALUATION IN SPECIAL NEEDS EDUCATION
DURATION – THREE (03) HOURS

Date: 20.07.2025 Time : 1.30 p.m. – 4.30 p.m.

Answer All Questions in Part I and any three (03) questions from Part II.

A non scientific calculators can be used for simple calculations.

PART - I

01. What is meant by 'educational measurement'?

02. State **four (04)** advantages of essay type tests over objective type tests.

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

04. i. What is meant by 'psychomotor development'?
ii. Explain the importance of assessing psychomotor skills for the total development of children in the classroom teaching-learning process giving suitable examples.

05. i. What is meant by the 'skewness' of a distribution of marks?
ii. Explain, using a diagram, the positive skewness of a distribution.

06. Explain what is an 'aptitude test' is citing a suitable example.

07. Differentiate between 'aims' and 'objectives', giving suitable examples.

08. Mention **three (03)** factors to consider when preparing multiple-choice questions.

(5 x 8 = 40 marks)

PART – II

09. i. Briefly explain the importance of graphical representation of a frequency distribution. (03 marks)

ii. Following are the marks obtained by 40 students in a class in a year-end examination.

47	17	60	75	50	53	91	26
28	65	72	54	35	40	29	59
42	85	48	30	55	87	39	35
44	52	75	80	67	58	78	47
25	45	40	53	12	63	38	32

a. Prepare a frequency distribution table for the above set of marks, using (45 – 56) as one of the class intervals. (02 marks)

b. Calculate the mode and median of the distribution. (03 marks)

c. Considering the assumed mean of the above set of marks to be in the class interval (45 – 56), calculate the arithmetic mean. (06 marks)

d. Calculate the standard deviation of the marks. (06 marks)

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

ii. What is meant by perfect positive correlation? (02 marks)

iii. The marks obtained by 10 students in mathematics and science at a year-end examination are as follows.

Student / Subject	A	B	C	D	E	F	G	H	I	J
Mathematics	65	48	57	65	60	55	45	75	55	48
Science	73	57	55	68	60	63	65	70	68	68

a. Calculate the rank difference correlation coefficient between mathematics and science marks. (11 marks)

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

11. Marks obtained by 3000 students in an examination are distributed according to a normal probability curve. The arithmetic mean and the standard deviation of the distribution are 45 and 15 respectively.

i. Find the number of students who scored between 30 and 60 marks. (05 marks)

ii. Find the number of students who scored between 55 and 70 marks. (05 marks)

iii. If the best 10% of students are to be awarded scholarships, what is the minimum mark required to be eligible for a scholarship? (05 marks)

iv. If 60% of students are to be passed the examination, what should be the cut-off mark. (05 marks)

12. i. Define terms "assessment" and "evaluation". (04 marks)

ii. Describe three (03) key differences between 'assessment' and ' evaluation' (06 marks)

iii. Explain why assessment is considered more important than evaluation in the teaching-learning process. (04 marks)

iv. "Criterion-referenced assessment is more effective than norm-referenced assessment". Justify this statement with suitable examples. (06 marks)

13. i. What is 'Table of Specifications'? (02 marks)

ii. Briefly explain **two (02)** advantages of using a table of specification when preparing a test. (04 marks)

iii. What aspects should be considered while preparing the table of specifications? (03 marks)

iv. Explain the steps involved in preparing a table of specifications. (05 marks)

v. Prepare a table of specifications to evaluate students' performance in a selected subject. (06 marks)

14. A i. Explain what is meant by 'affective development'. (02 marks)

ii. Explain why it is difficult to measure affective development. (04 marks)

iii. Citing **two (02)** examples, justify the importance of evaluating affective development in the teaching learning process. (04 marks)

B i. Discuss the difference between 'attitudes' and 'interests'. (02 marks)

ii. Explain **four (04)** characteristics of an 'attitude' (04 marks)

iii. Name **two (02)** techniques used to measure attitudes, and explain one of them with an example. (04 marks)

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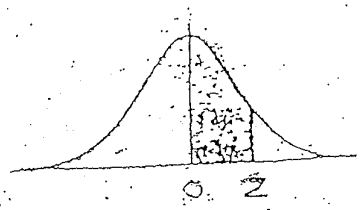
இலங்கை திறந்த பல்கலைக்கழகம்
The open university of Sri Lanka

සම්මත ප්‍රමිත වක්‍රය යට ඝේත්‍රඵල - (0 සිට Z දක්වා)
நியம வளையி இன் பரப்பளவுகள் - 0 முதல் Z வரை
Areas Under the Standard Normal Curve – from 0 to z



Z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
0.1	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
0.2	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
0.3	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
0.4	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
0.5	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
0.6	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
0.7	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
0.8	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
0.9	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
1.0	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
1.2	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
1.3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1.5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1.6	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
1.7	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
1.8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
1.9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2.0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
2.2	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
2.3	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2.4	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
2.5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2.6	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964
2.7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0.4974
2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0.4986
3.0	0.4987	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4990
3.1	0.4990	0.4991	0.4991	0.4991	0.4992	0.4992	0.4992	0.4992	0.4993	0.4993
3.2	0.4993	0.4993	0.4994	0.4994	0.4994	0.4994	0.4994	0.4995	0.4995	0.4995
3.3	0.4995	0.4995	0.4995	0.4996	0.4996	0.4996	0.4996	0.4996	0.4996	0.4997
3.4	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4998
3.5	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998
3.6	0.4998	0.4998	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999
3.7	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999
3.8	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999
3.9	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000

Some important formulas / වැදගත් සූත්‍ර කිහිපයක්
சில முக்கிய சூத்திரங்கள்

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

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

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

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

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

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