63/1 (SEM–3) CC6/EDNHC3066

2023

EDUCATION

Paper : EDNHC3066

(Educational Measurement and Educational Statistics)

Full Marks : 80

Pass Marks : 32

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Choose the correct option from the following (any *six*) : 1×6=6

    (a) "Measurement means the description of data in terms of numbers and this, in turn, means taking advantage of the many benefits that operations with numbers and mathemetical thinking provide."

    Who among the following said the above statement?

    (i) Numamally

    (ii) Guilford

    (iii) Stevens

    (iv) McCall

(b) In which kind of measurement, the units are infinite?

(i) Mental measurement

(ii) Physical measurement

(iii) Measurement of a desk

(iv) Measurement of land

(c) The kind of evaluation that is concerned with performance of predetermined criterion of an individual in terms of what he can do is

(i) Standardized test

(ii) Educational evaluation

(iii) Criterion referenced evaluation

(iv) Norm referenced evaluation

(d) Select the type of error in measurement from among the options given below.

(i) Errors of interpretation

(ii) Learning error

(iii) Behavioural error

(iv) All of the above

(e) Which one of the following is a characteristic of good measurement tools?

(i) Use of age norms

(ii) Traditional method of testing

(iii) Short length of test

(iv) Reliability of test

(f) In test construction, fixing objectives is one of the procedures. It means

(i) finding new objectives

(ii) planning for new test

(iii) identifying the instructional objectives

(iv) fixing objectives according to individual needs

(g) Which of the following options is not an objective of keeping cumulative record card of students?

(i) To know students' physical record

(ii) To know students' record on co-curricular activities

(iii) To know students' educational data

(iv) To know about students' family members

(h) In which intelligence test of the following, first time the idea of mental age is used?

   (i) Binet-Simon Scale, 1905

   (ii) Binet-Simon Scale, 1908

   (iii) Revision of Binet-Simon Scale, 1911

   (iv) Revision of Stanford-Binet Scale, 1937

(i) Mean, median and mode are the methods of measurement of which one among the following options?

   (i) Range

   (ii) Ungrouped data

   (iii) Central tendency

   (iv) Variability

(j) For convenience of calculation, the total area under a normal probability curve is

   (i) 5000

   (ii) 95·44% area

   (iii) 10000

   (iv) 20000

2. Answer any *five* of the following questions briefly : 2×5=10

   (a) What is physical measurement?

   (b) Write two purposes of measurement.

   (c) What is meant by summative evaluation?

   (d) Write two importance of item-analysis of standardized test.

   (e) Write two uses of intelligence test.

   (f) Write two problems of measurement of personality.

   (g) Mention any two types of data used in educational statistics.

3. Answer any *six* of the following questions : 5×6=30

   (a) Mention the types of measurement.

   (b) Write five procedures of standardization of a test.

   (c) What do you mean by non-verbal test and verbal test of intelligence?

   (d) Write five characteristics of teacher-made achievement test.

(e) Write the advantages and disadvantages of essay-type achievement test.

(f) Describe briefly the projective method of personality measurement.

(g) Describe any two types of attitude scale.

(h) Write five uses of statistics in education.

(i) What is skewness in normal probability?

(j) Draw a histogram from the following table :

Class Interval (CI)	Frequency (f)
55–59	1
50–54	1
45–49	3
40–44	4
35–39	6
30–34	7
25–29	12
20–24	6
15–19	8
10–14	2
	N = 50

(Continued)

4. Answer any *two* of the following questions :
$10 \times 2 = 20$

(a) What is meant by measurement? Write two processes of evaluation. Write five differences between measurement and evaluation. $2+3+5=10$

(b) Define psychological test. Mention any three types of test. Describe any three types of test developed on the basis of the nature of items. $2+3+5=10$

(c) What do you mean by interpretation of test scores? Write three methods of interpretation of test scores. Write five purposes of reporting the test result.
$2+3+5=10$

(d) What do you mean by measurement of central tendency? What are its methods? Write the uses of mean, median and mode. $2+2+6=10$

5. Answer any *one* of the following questions : 14

(a) What do you mean by reliability of a test? Mention three methods of testing reliability of a test. Write the factors influencing test reliability. $3+3+8=14$

(b) Classify the types of achievement test. Write the advantages and disadvantages of objective-type achievement test.
$3+11=14$

(Turn Over)

(c) What do you mean by correlation? What do you mean by positive and negative correlation? Determine the coefficient of correlation for the following data using rank difference method :

Test—*A* : 30 34 35 36 39 40
Test—*B* : 72 70 36 80 73 79

Test—*A* : 40 40 40 42 46
Test—*B* : 76 76 83 85 81   1+4+9=14

★ ★ ★