2016

(December)

Education

Course No: EDNC- 104

Research Methodology in Education – I

Full Marks: 75

Time: 3 hours

The figures in the margin indicate full marks for the questions.

Answer any **five** questions

1. Describe the steps involved in selecting a research problem. How does a researcher evaluate the selected research problem before accepting it as final?   10+5=15

2. What is meant by Hypothesis? What are its characteristics? Discuss the various types of hypothesis.
   5+5+5=15

3. Explain Rating scales and Observation as the tools of data collection.   7 ½+7 ½ =15

4. What is probability sampling? Explain in detail the technique of Systematic Random Sampling. Give its advantages and disadvantages.   3+8+4=15

5. (a) What are the characteristics of Normal Probability Curve?

   (b) In an abstract reasoning test the distribution is essentially normal with M=100 and SD= 20. Find out .

   (i) What percentage of scores lie between 85 and 125

   (ii) The middle 60% fall between what two points.   5+10=15

6. (a) Explain the concept of Kurtosis and Skewness.

   (b) In a given test, 10% students solved question 1, 20% solved question 2, 30% solved question 3, and 40% solved question 4. Determine relative difficulty of questions.   5+10=15

7. (a) Explain the concept of Multiple Correlation.

   (b) The correlation coefficient between three variables viz Motivation X_1 Anxiety X_2 and Achievement X_3 is given as below.

   $r_{12}= .72$ $r_{13}= .64$ $r_{23}= .54$

   Calculate $R_{3.12}$ and $r_{13.2}$ 5+10= 15

(P.T.O)

8. (a) Explain the concept of Regression and Prediction.

5+10=15

(b) Compute the coefficient of correlation between the following sets of scores by Product Moment Method.

Subject	A	B	C	D	E	F	G	H	I	J	K	L
Test X	30	16	29	42	21	30	32	43	25	18	31	24
Test Y	20	14	15	17	11	15	18	14	16	15	21	18

9. Write short notes on any **two** of the following:

$7\frac{1}{2} + 7\frac{1}{2} = 15$

1) Methods of Acquiring Knowledge.

2) Scope of Educational Research

3) Preparation of Research proposal

4) Uses and limitations of Partial Correlation.