Krishna Kanta Handiqui State Open University
MA 3rd Sem. Examination, 2015
Subject : Education
Educational Research and Educational Statistics

Time : 3 Hrs. Full Marks : 80

1. Answer any five from the following questions : 5×2 = 10
(Each within 50 words)
   (a) Write the different categories of research.
   (b) What is one-tailed hypothesis and two-tailed hypothesis?
   (c) What is qualitative technique?
   (d) Write two precautions for constructing a valid question.
   (e) What is sampling error? Mention its causes.
   (f) Define variable and what are its types?
2. Answer any three from the following questions 4×3 = 12
(Each within 100 words)
   (a) Discuss the steps involved in educational research.
   (b) State the reasons for formulating a hypothesis.
   (c) What are the three types of kurtosis? State with the help of diagrams.
   (d) Explain the ways of interpreting coefficient of correlation.
   (e) Write about the criterias for selecting sampling.
3. Answer any three of the following questions : 6×3 = 18
(Each within 250 words)
   (a) Discuss the major strategies that are helpful for validating and verifying the result of qualitative analysis.
   (b) Explain the important elements involved in preparing research interview.
   (c) What is NPC? The score of a student in a class test is 50 and the α is 10. Find the percentile rank of the student in the class.
   (d) Discuss the values of Descriptive Research in Education.
   (e) Calculate the standard error of prediction $\sigma(est_y)$ with the help of the following data.

Aptitude test	Achievement test
σ_x = 8.28	σ_y = 10.35
$\overline{X}$ = 60	$\overline{Y}$ = 32
$\overline{X}$ = 60	$\overline{Y}$ = 28

correlation coefficient between X and Y = .78

4. Answer any four from the following questions: 10×4=40
(Each within 400 words)
   (a) What is interview method? Discuss the advantages and disadvantages of interview method.
   (b) What is non-probability sampling? Discuss any method of non-probability sampling with its merits and demerits.
   (c) Discuss the Importance, Types and Adminstration mode of Questionnaire as a tool of Educational Research.
   (d) The attitude on reservation was measured from an attitude scale from 100 students in five categories. The responses are given in below. Compute Chi-square of equal distribution and interpret the result.

A	B	C	D	E	Total
15	20	30	19	16	100
20	20	20	20	20	100

   (e) Compete the coefficient of correlation of the two group X and Y, as given below -

Students	X	Y
A	15	30
B	10	10
C	25	20
D	30	15
E	20	25

   (f) The following 20 studemts have benn randomly assigned to four groups of five each, to be taught by different methods i.e. A B C and D. Calculate the Analysis of variance.

Methods or Groups

A	B	C	D
(X_1)	(X_2)	(X_3)	(X_4)
14	19	12	17
15	20	16	17
11	19	16	14
10	16	15	12
12	16	12	17