

M.A. Examination, 2019
Semester-II
Education
Course : EDN-321
(Techniques of Analysis in Educational Research)

Time : 3 Hours

Full Marks : 70

Questions are of value as indicated in the margin.

Group -A

1. Attempt **any four** questions:

4×10=40

- a) What is NPC? 1000 students are classified into seven equal segments A, B, C, D, E, F and G, according to their ability. If the trait counted under ability is normally distributed, determine how many students should be placed in each category A, B, C, D, E, F and G. Mention the uses of NPC. 2+6+2
- b) Differentiate between Quantitative and Qualitative data. What is the importance of data analysis in Educational Research? 4+6
- c) Compute the biserial correlation from the data given below:

Scores on Adjustment Scale	Success of Job	Failure of Job
20-29	1	0
30-39	6	1
40-49	8	6
50-59	10	8
60-69	12	9
70-79	4	13
80-89	1	5
90-99	0	3
100-109	1	2

The number of candidates passing and failing in two items of a test are given in the following tabular representation?

Item II	Item-I	
	Pass	Fail
	80	55

Compute Phi-coefficient those two items

6+4

- d) What is ANOVA? The following are the scores on a psychomotor test for groups of equal subjects tested under three different experiments.

Gr-I	Gr-II	Gr-III
4	9	3
6	10	2
2	9	6
0	6	4
4	7	1

Formulate and Test the Null hypothesis.

2+8
P.T.O.

(2)

- e) Differentiate between parametric test and Nonparametric test. In an experiment of 1600 beans on breeding of peas a researcher obtained the following data of the four groups were 882, 313, 287 and 118. The theory predicts the proportion of beans, in four groups A, B, C and D should be 9:3:3:1. Does the experiment result support the genetic theory? Test at 0.05 level. 3+7=10

Group-B

2. Attempt **any four** questions : 4×5=20
- a) What are the basic assumptions of parametric statistics?
 - b) What do you mean by Skewness and Kurtosis?
 - c) What do you mean by categorization approach of data analysis.
 - d) What is meant by Type-I and Type-II error?
 - e) What do you mean by one tailed test and two tailed test of significance?

Group-C

3. Attempt all the questions : 2×3=6
- a) What is sampling error?
 - b) What do you mean by degrees of freedom?
 - c) What are the causes of Non Normality?
4. Attempt all the questions : 4×1=4
- a) Parametric Test is
 - i) F-test ii) Chi-square test iii) Median Test iv) Sign Test
 - b) Phi-Coefficient is applied when
 - i) Both are artificial dichotomy ii) Both are natural dichotomy
 - iii) One artificial dichotomy and another natural dichotomy iv) None of the above
 - c) i) Choose the option with appropriate relation
 - chi-square = Phi Square ii) chi-square = N Phi Square
 - ii) chi-square = N Square Phi Square iv) None of the above
 - d) Cumulative frequency percentage curve is known as :
 - i) Ogive ii) Histogram iii) Frequency Polygon iv) None of the above
-