

Total No. of Questions : 6]

[Total No. of Printed Pages : 4

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M. Ed. (General) (Compulsory) Examination - 2010

PAPER - III

EDUCATIONAL RESEARCH AND STATISTICS

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 100

Instructions :

- (1) *All questions are compulsory.*
- (2) *Two sections are to be written in separate answer-books.*
- (3) *Figures to the right indicate full marks.*
- (4) *Students should follow the given word limit.*
- (6) *Word limit for Q. Nos. 1, 2, 4 and 5 - 400 words each and for Q. Nos. 3 and 6 - 150 words each.*
- (7) *In any situation, student should not be given supplement.*
- (8) *Use of simple calculator and statistical tables is allowed.*

SECTION - I

Q.1) Explain Historical Method of Research considering the following points : **[15]**

- (1) Need
- (2) Data Collection
- (3) Establishing Validity

OR

Q.1) (A) What are the qualities of good measuring tool used in Educational Research ? **[05]**

(B) Explain Preparation and Administration of Interview Schedule. **[10]**

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Q.2) Explain use of review of related Literature and Researches at different stages of Research. **[15]**

OR

Q.2) (A) What do you mean by 'Population' in Educational Research ? **[05]**

(B) Explain in brief qualitative research in the field of Education. **[10]**

Q.3) Write short notes : **(Any Four)** **[20]**

- (a) Product Research
- (b) Scientific Inquiry
- (c) Need of Educational Research
- (d) Characteristics of Good Sample
- (e) Errors in Sampling
- (f) Role of Assumptions in Educational Research

SECTION - II

Q.4) Educational Research was aimed to study effect of three different methods of teaching for a particular content. Three groups, each consisting of five students of class IX, assigned randomly, were taught using different methods. The scores obtained in achievement test were recorded as follows :

Group I	Group II	Group III
2	3	5
5	3	8
4	8	3
9	7	4
5	9	5

Test difference between the groups by adopting Analysis of Variance Techniques. **[15]**

OR

Q.4) (A) Two groups X and Y of VIIIth standard students, 100 in each group are matched by pairs on scores in stress test. Yoga program was implemented only to Experimental Group. After fifteen months, data tabulated from post-test of stress was as follows :

	Experimental Group (X)	Control Group (Y)
Number of Students	100	100
Mean	96.39	67.36
Standard Deviation	10.32	11.0
Coefficient of Correlation between post-test (Experimental Group and Control Group = 0.76)		

Test significance of difference between Mean of Experimental Group and Control Group. Interpret your result. **[10]**

(B) Calculate Mean from the following distribution by using Assumed Mean Method : **[05]**

C.I.	18 20	15 17	12 14	9 11	6 8	3 5	0 2
Frequency	7	9	13	15	12	10	4

Q.5) (A)

	Intelligence Quotient (X)	Maths Score (Y)
M	80	60
S.D (σ)	7	9
r	0.86 (Coefficient of Correlation)	

Determine Regression Equation of Y on X in score form. Predict Probable Score in Maths of a student whose Intelligence Quotient is 70. **[05]**

- (B) Calculate Coefficient of Correlation from the following data using Pearson's Product Moment Method and Interpret your answer : [10]

Student	A	B	C	D	E	F	G	H	I	J
Test X Score	65	60	65	60	60	50	55	52	53	60
Test Y Score	30	30	30	35	22	20	28	20	15	10

OR

- Q.5)** (A) Suppose that we have administered an intelligence test to 100 school students. We wish to classify our group into three sub-groups A, B and C according to intelligence quotient, the range of intelligence quotient to be equal in each sub-group. On the assumption that the trait measured by our examination is normally distributed, how many students should be placed in group A, B and C ? [Range : $\pm 3\sigma$] [05]
- (B) Write characteristics of Good Research Report. [05]
- (C) Explain concept of Tetrachoric Correlation. [05]
- Q.6)** Write notes on **any four** of the following : [20]
- (a) Biserial Correlation
 - (b) Measures of Variability
 - (c) Pie-chart
 - (d) Use of Computer in Data Analysis
 - (e) Percentile Rank
 - (f) Contingency Coefficient
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