

C 82580

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Name.....

Reg. No.....

SECOND SEMESTER M.Ed. DEGREE EXAMINATION, JUNE 2020

M.Ed.

MED 08—ADVANCED EDUCATIONAL RESEARCH AND STATISTICS

(2017 Admissions)

Time : Three Hours

Maximum : 80 Marks

I. Answer *all* questions. Each question carries 2 marks :

- 1 What do you mean by the concept 'degrees of freedom' ?
- 2 Explain the concept 'homoscedasticity' in research ?
- 3 Write any *four* advantages of 'checklist' ?
- 4 What is internal validity in qualitative research ?
- 5 Discuss Chi-square as a test of independence ?

(5 × 2 = 10 marks)

II. Answer any *eight* questions of twelve. Each question carries 5 marks :

- 6 Describe the advantages and disadvantages of observation technique in research ?
- 7 Distinguish between true experimental design and quasi experimental design ?
- 8 How inferential statistics is different from descriptive statistics specify with suitable illustrations ?
- 9 What is Ex-post facto research, specify with examples ?
- 10 Explain the concept of regression lines and regression equation ?
- 11 Mann-Whitney test can be used for testing the difference between population distributions. Validate this statement by taking theoretical support from the test ?
- 12 A random sample of 200 measurements from an infinite population gave a mean value of 50 and a standard deviation of 9. Determine the 95% confidence interval for the mean value of the population ?
- 13 Find out Pearson product moment correlation co-efficient for the following data :

X	:	63	35	45	74	85	95	98	77	56	29
Y	:	67	56	48	92	96	75	76	34	63	82

Turn over

- 14 Bring out the nature and characteristics of descriptive or normative survey research ?
- 15 Write a note on :
- Two tailed and one tailed testing.
 - Confidence interval.
- 16 Explain the procedure adopted for standardizing a research tool ?
- 17 What do you understand by the terms :
- Plagiarism.
 - APA Style of referencing.

(8 × 5 = 40 marks)

III. Answer any *two* questions out of four. Each question carries 15 marks :

- 18 120 boys and 80 girls were asked to respond to a rating scale as strongly agree, agree, undecided, disagree and strongly disagree and the responses are shown below :

Sex	:	SA	A	U	D	SD	Total
Boys	:	22	18	32	16	12	100
Girls	:	18	15	22	15	10	80

Do you think that the rating is independent of gender, if so reason out appropriately ?

- 19 An experiment is conducted to study the effectiveness of 3 methods : Lecture method, Multimedia instruction and blended learning method. In each group four students are assigned randomly. The obtained scores are given in the following table. Is there significant difference among three methods of teaching ?

Lecture Method	Multimedia Method	Blended Learning
4	5	8
6	8	6
2	4	6
3	4	7

- 20 Write a note on the meaning and characteristics of qualitative research ? Explain the terms involved in the process of grounded theory method ?
- 21 What are the criteria of a good research report ? Bring out the ethical considerations we keep in mind while carrying out the research work ?

(2 × 15 = 30 marks)