Time: Three Hours

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SECOND SEMESTER M.Ed. DEGREE (2017 SCHEME) EXAMINATION JULY 2021

M.Ed.

MED 08—ADVANCED EDUCATIONAL RESEARCH AND STATISTICS

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

- 1 Write short note on Ex-post facto research.
 - 2 What are the different elements of Sociogram?
 - 3 What does the terms 'ibid and op cit.' talks in research reporting?
 - 4 Distinguish between confidence interval and confidence limits.
 - 5 What is the new expansion of SPSS? List any four different types of testing that you can do with this software?

 $(5 \times 2 = 10 \text{ marks})$

Maximum: 80 Marks

- II. Answer eight questions out of twelve. Each question carries 5 marks:
 - 6 Write in detail how you can create an Inventory for educational research. Give specific input on context, method and scoring.
 - 7 What are the different threats to experimental research?
 - 8 Write short note on the following:
 - (a) Standard error.
 - (b) Degrees of freedom.
 - 9 How can you use the regression lines in a scatter diagram for the prediction of a variable? Explain with an example.
 - 10 Two groups of B. Ed students from two different colleges had a teacher aptitude test. The data collected are as shown below. Is there any significant difference between two means?

	Group A	Group B
Mean	44	48
SD	7.2	7.6
N	150	100

Turn over

- 11. Distinguish between Type I and Type II error with suitable example.
- 12. What do you understand by Case Study Research?
- 13. Compute the rank order coefficient of correlation for the following data:

Chemistry 82 76 58 97 58 79 99 84 69 Physics 78 81 67 88 62 79 91 95 94 75

- 14. Distinguish between one tailed and two tailed testing of significance.
- 15. Write a note on non-parametric test. In which conditions Mann Whitney test can be used.
- 16. Describe in detail about mixed methods of research. What are the different types of mixed method designs?
- 17. What do you understand by the term 'Triangulation'? What are the different types of triangulation methods?

 $(8 \times 5 = 40 \text{ marks})$

- III. Answer any two questions out of four. Each question carries 15 marks:
 - What is chi-square test? Discuss in brief the underlying assumptions, limitations and uses. How chi-square test can be applied to test the 'goodness of fit' with a suitable example.
 - 19 Three groups, each consisting of 5 students of class X, assigned randomly, and were given training on these different techniques. The scores obtained on a performance test were recorded as follows. Apply the analysis of variance to test the null hypothesis.

Groups	16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	100	Scores			
1	- C. C.	6	3	8	9	10
2	5	7	4	8	7	10
3	7	9	5	6	8	9

- 20 Write in detail about the qualitative research methods giving special emphasis to phenomenology, ethnography and grounded theory.
- 21 What are the ethical considerations to be taken care while conducting an educational research? Substantiate your views giving special reference to accuracy, confidentiality, honesty, authenticity and plagiarism.

 $(2 \times 15 = 30 \text{ marks})$