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Ph.D. PRELIMINARY QUALIFYING EXAMINATION, JULY 2022

Education

Paper I—RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 70 Marks

Section A

Answer any **tw**o questions. Each question carries 15 marks.

- Define the term 'Educational Research'? Discuss the base for classifying educational research into 'basic' and 'applied research' with suitable examples from the educational field.
- 2. Explain the importance of experimental research designs in educational research. Enumerate different types of experimental research and state in which context each one is applicable.
- Describe any three major methods under qualitative research design with suitable illustrations.
- Discuss the significance of Inferential statistics in educational research.
 Explain any one parametric test used for hypothesis testing involving more than two groups with suitable examples and steps.

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

Section B

Answer any **eight** questions. Each question carries 5 marks.

- 5. Explain the functions of educational research.
- 6. What are the different sources for formulating a problem in educational research?
- 7. In which context 'Ex-post facto' research method is applied?
- 8. Describe the outline of a research proposal for a suitable problem from the School Education stage.
- 9. Discuss a research problem wherein Soloman four group design is applied.

Turn over

- 10. Explain the steps followed before analysing the data using any software?
- 11. What ethics are to be followed while conducting educational research?
- 12. Explain the procedure to be followed in communicating the research findings
- 13. Given 500 scores distribution with Mean = 50 and SD = 6, assuming normality, find out $h_{0\psi}$ many students get a score between 40 and 70.
- 14. Explain the systematic and random errors in sampling.
- Discuss the procedure followed for computing the Analysis of Covariance (ANCOVA) for a given set of data using a software.
- 16. Illustrate a situation where in Chi-square test is appropriate for the analysis of the data.

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