RM-05

DEPARTMENT OF EDUCATION
UNIVERSITY OF RAJASTHAN JAIPUR

Syllabus for Ph.D.(Education) Entrance Test
(Common for Education, Physical Education and Library Science)

RESEARCH METHODOLOGY

Section A

Evolution of Scientific enquiry, Scientific Research: Definition, Characteristics, types, need of research, Meaning and importance of Research, Objectives of Research, Motivation in Research.

Research methods: Scientific method, Deductive, Inductive approach.

Types of research: Pure research, applied research, Exploratory Research, Descriptive research, Diagnostic research, Quantitative and Qualitative research.

Research Process, Criteria of good Research, Research Formulation, Defining and formulating the research problem.

Reasoning and analytical abilities, Ethics in conducting research.

Section – B

- Formulation of Research Problem, Formulation of Objectives, Hypothesis: Concept, characteristics of a good hypothesis, sources and types of hypothesis.

- Sampling: Concept of population and sample Steps, characteristics of a good sample, sampling errors and how to reduce them, Various methods of sampling, Probability and non-probability.

- Tools And Technique (Characteristics of a good research tool, Tools for Quantitative and Qualitative research types and criteria for selecting appropriate tools, Selection, Construction & Standardization of a tool/test, Item Analysis, Reliability, Validity, Norms & Profiles).

Section – C

- Data analysis in qualitative research (content analysis, inductive, phenomenological- analytical), Statistical Inferences (Theoretical understanding and applications of Parametric and Non Parametric tests), Factor Analysis (Concept, Methods of factor Analysis Centroid, Principal Axis and Principal component), Approximation and Errors in research.

- Internet as a source in Educational research- (for literature review, data collection and analysis, Selecting appropriate statistical techniques for analysing different types of hypotheses), Computer applications in research (Introduction to competing software packages for data analysis Excel, SPSS, and e Views), Interpretation of results in statistical analysis.