

PAPER III : METHODOLOGY OF EDUCATIONAL RESEARCH

PART I : Methods of Educational Research

Marks : 60

COURSE OBJECTIVES :

To enable the students to understand :

- 1-The meaning of scientific method, scientific inquiry, paradigm, theory and its implications for educational research
- 2- The different strategies of educational research .
- 3- The techniques of developing a research proposal .
- 4- The meaning and techniques of sampling .
- 5- The various types of tools of data collection .

COURSE CONTENTS :

UNIT I

- Education as a discipline; Need of research in education, Determining priorities in the field of Educational research in India .

UNIT II

- Interdisciplinary approaches in educational research and its implications-Qualitative & Quantitative

UNIT III

-Methods of Educational Research : Experimental, Descriptive, Historical, Action research, Ethnographic, Documentary analysis .

UNIT IV

- i. Problem and its sources : Selection and Definition of problem . Objectives – primary, secondary and concomitant .
- ii. Review of the related literature.

- iii. Hypothesis – nature, definition, types, sources, characteristics of a good hypothesis, directional and non-directional hypothesis
- iv. Sampling : unit of sampling, population: techniques (a) Probability sampling techniques (b) non-probability sampling techniques ; Characteristics of a good sample ; Sampling errors and how to reduce them ; Tables of Random Numbers : types , how to use them .

UNIT V

- Tools and techniques of data collection : General principles of construction of tools: Observation, Interview, Sociometric techniques , Questionnaire , Rating scales, Interview schedules, Attitude scales etc. : Reliability and Validity of various tools and techniques . Characteristics of good research tools.
- Application of computer for data analysis.

PART II : METHODS OF DATA ANALYSIS

Marks : 40

UNIT I

- Nature of educational data : Quantitative and Qualitative .

UNIT II

- Quantitative data : scales of measurement , nominal, ordinal, interval and ratio .

UNIT III

- Analysis of data : Descriptive and Inferential Statistics ; The null hypothesis, test of significance, types of error ; One tailed and two tailed tests and t- test ; The F-test (one way ANOVA) .

UNIT IV

- Normal probability curve and its characteristics .

UNIT V

- Non-parametric Statistics : Chi – square Test

UNIT VI

- Pearson’s Product moment correlation .

UNIT VII

- Biserial , Point-biserial , Tetrachoric , and Phi- coefficient of correlation ; Partial and Multiple

correlations .