# RESEARCH METHODOLOGY

### UNIT 1: Research

- 1.1 Basic concepts-meaning and characteristics of scientific research-factors affecting, steps or stages in research.
- 1.2 Types of Research-Experimental and Non experimental, Laboratory experiments and field experiments, True experiments and quasi experiments, Quantitative and Qualitative Research, Expost Facto research, survey research and Types of experiments.
- 1.3 Ethical problems in Research.

### **UNIT 2: Problem, Hypothesis and Variables**

- 1.1 Meaning and characteristics of a problem, sources of stating a problem, considerations in selecting the problem, formulation of the problem and types of problems.
- 1.2 Meaning and characteristics of a good hypothesis, Types of hypothesis, Errors in Hypothesis testing and formulation of Hypothesis.
- 1.3 Meaning and types of variables, Consideration in the selection of variables, Control of extraneous variables-Techniques.

#### UNIT 3: Review of Literature and Data Collection.

- 1.1 Review of literature- Purpose, source and preparation of Index Card.
- 1.2 Data collection-Observation, Interview, Questionnaires and Psychological tests and scales.

## **UNIT 4: Designs, Analysis and Report Writing**

1.1 Meaning, Purpose and criteria of research design; basis principles in Experimental design-Types and their analysis techniques; Single subject and small N design-Pre, True and Quasi experimental designs and Expost Facto design.

- 1.2 Analysis of data: qualitative and quantitative analysis of the data purpose, conditions and interpretation of major parametric and non parametric statistical techniques.
- 1.3 General purpose of writing a report, structure and format of a report (API), Style of writing, Typing, Evaluating a report and Preparing a research proposal.
- 1.4 Computer Applications, Personal computers, Computer language, Data base, Computer simulations, laboratory experiments using computers.

#### **References:**

Brekwell, G.M. et at. (2002) Research Methods in Psychology. London, Sage Publications Brrota, K.D.(2001) Experimental Designs in Behavioural Research. New Delhi, Wiley Easter Ltd.

Goodwin, C.J. (2003)Research Psychology: Methods and Designs. New York, John Wiley and Sons, Inc.

Kerlinger, F.N. (2007) Foundation of Behavioral Research.