

## **Syllabus for the Research Aptitude Test**

### **1. Research Aptitude**

- Definition of Research
- Qualities of a Competent Researcher
- Purpose and Scope of Research in Engineering Education (Inter-disciplinary)
- Criteria for the selection of a research problem
- Research proposal
- Types of Research: - Historical research
  - Descriptive research
  - Experimental research
- Sampling
- Hypothesis
- Tools for Research: Questionnaire, Interview Schedule and Tests
- Validity and Reliability of the tools
- Analysis of quantitative and qualitative data
- Research Report

### **2. Communication**

- Nature, Characteristics and Types
- Barriers
- Effective classroom communication
- Non-verbal communication