**Basics of Software Testing**

**Add on Course for IV Semester**

**B.E. Computer Science and Engineering**

**Duration:** 30 Hours

**Syllabus**

**Module 1:  INTRODUCTION**

#### Module 1

Basics of Software Testing: Basic definitions, Software Quality , Requirements, Behaviour and Correctness, Correctness versus Reliability, Testing and Debugging, Test cases, Insights from a Venn diagram, Identifying test cases, Test-generation Strategies, Test Metrics, Error and fault taxonomies , Levels of testing, Testing and Verification, Static Testing. Problem Statements:

**Module 2:  E-WASTE LEGISLATION**

Functional Testing: Boundary value analysis, Robustness testing, Worst-case testing, Robust Worst testing for triangle problem, Nextdate problem and commission problem, Equivalence classes, Equivalence test cases for the triangle problem, NextDate function, and the commission problem, Guidelines and observations, Decision tables, Test cases for the triangle problem

Module 3: **END OF LIFE MANAGEMENT OF E-WASTE**

Process Framework :Basic principles: Sensitivity, redundancy, restriction, partition, visibility, Feedback, the quality process, Planning and monitoring, Quality goals, Dependability properties ,Analysis Testing, Improving the process, Organizational factors. Planning and Monitoring the Process: Quality and process, Test and analysis strategies and plans, Risk planning, monitoring the process

Reference:

Paul C. Jorgensen: Software Testing, A Craftsman’s Approach, 3rd Edition, Auerbach Publications, 2008.