

22. Software Testing (CS-149)

(3-0-2)

Foundation - Basic Definitions, Test Cases, Error and Fault Taxonomies, Levels of Testing; Verification and Validation; Static and Dynamic Testing; Functional Testing - Basics, Boundary Value Analysis, Equivalence Class, Decision Table-Based, Cause-Effect Graphs; Structural Testing - Coverage Metrics, Basis Path, Graph Matrix, Loop, Dataflow; Mutation testing; Regression Testing; V-Model; Levels of Testing - Unit, Integration Types, System Types, Object-Oriented Testing - Class, Integration, GUI, System, Practicals- Based on JUnit/NUnit.

References:

1. Jorgensen P.C., Software Testing, A Craftsman's Approach, Third Edition, Auerbach Publications, 2010
2. Chauhan N., Software Testing: Principles and Practices, First Edition, Oxford University Press, 2010