

SOFTWARE TESTING:

UNIT - I:

Introduction: Testing as an Engineering Activity, Testing as a Process, testing axioms, Basic Definitions Software Testing Principles, The Tester's Role in a Software Development Organization, Origins of Defects, cost of defects, Defect Classes, The Defect Repository and Test Design, Defect Examples, Developer/Tester Support for Developing a Defect Repository, Defect Prevention Strategies.

UNIT - II:

Test Case Design : Test Case Design Strategies, Using Black Box Approach to Test Case Design, Random Testing, Requirements based testing, Boundary Value Analysis, Decision tables, Equivalence Class Partitioning, State-based testing, Cause-effect graphing, Error guessing, Compatibility testing, User documentation testing, Domain testing

Using White Box Approach to Test design, Test Adequacy Criteria, static testing vs. structural testing, code functional testing, Coverage and Control Flow Graphs, Covering Code Logic, Paths, Their Role in White-box Based Test Design, code complexity testing, Evaluating Test Adequacy Criteria.

UNIT - III:

Levels Of Testing : The Need for Levels of Testing, Unit Test, Unit Test Planning, Designing the Unit Tests, The Test Harness, Running the Unit tests and Recording results, Integration tests, Designing Integration Tests, Integration Test Planning, Scenario testing, Defect bash elimination.

System Testing, Acceptance testing, Performance testing, Regression Testing, Internationalization testing, Ad-hoc testing - Alpha , Beta Tests, testing OO systems, Usability and Accessibility testing, Configuration testing, Compatibility testing, Testing the documentation, Website testing

UNIT - IV:

Test Management : People and organizational issues in testing, organization structures for testing teams, testing services, Test Planning , Test Plan Components, Test Plan Attachments, Locating Test Items - test management, test process, Reporting Test Results, The role of three groups in Test Planning and Policy Development, Introducing the test specialist, Skills needed by a test specialist, Building a Testing Group.