

AMSW12 SOFTWARE TESTING

UNIT-1 INTRODUCTION

- 1.1 Activities of a Test Engineer - Testing Levels Based on Software Activity - Beizer's Testing Levels Based on Test-Process Maturity
- 1.2 Automation of Test Activities Software Testing Limitations and Terminology - Coverage Criteria for Testing Infeasibility and Subsumption
- 1.3 Characteristics of a Good Coverage Criterion Older Software Testing Terminology

UNIT-2 GRAPH TESTING

- 2.1 Graph Coverage Criteria - Structural Coverage Criteria
- 2.2 Graph Coverage for Source Code - Graph Coverage for Design Elements
- 2.3 Graph Coverage for Specifications - Graph Coverage for Use Cases
- 2.4 Representing Graphs Algebraically

UNIT-3 LOGIC TESTING & INPUT SPACE PARTITIONING

- 3.1 Logic Predicates and Clauses - Logic Expression Coverage Criteria- Structural Logic Coverage of Programs- Specification- Based Logic Coverage
- 3.2 Logic Coverage of Finite State Machines - Disjunctive Normal Form Criteria.
- 3.3 Input Domain Modeling- Combination Strategies Criteria- Constraints among Partitions

UNIT-4 SYNTAX TESTING

- 4.1 Syntax- Based Coverage Criteria - Program-Based Grammars
- 4.2 Integration and Object-Oriented Testing - Specification-Based Grammars
- 4.3 Input Space Grammars. Regression Testing - Integration and Testing
- 4.4 Test Process- Test Plans

UNIT-5 ENGINEERING CRITERIA

- 5.1 Testing Object-Oriented Software- Unique Issues with Testing OO Software Types of Object-Oriented Faults
- 5.2 Testing Web Applications and Web Services Testing Static Hyper Text Web Sites- Testing Dynamic Web Applications- Testing Web Services
- 5.3 Testing Graphical User Interfaces- Testing GUIs- Real-Time Software and Embedded Software

References Books:

1. Aditya P. Mathur, "Foundations of Software Testing", Pearson, 2008.
2. Paul C. Jorgensen, "Software Testing: A Craftsman's Approach", Auerbach Publications, 2008.