

505: Introduction to Testing

Theory Credits: 4

Lab Credits: 1

Objective: A student who has successfully completed this module will be able to apply basic testing ideas, principles & skills to give quality software product.

Sr. No.	Topic Name	No. Of Hrs
1	Planning for assessment and testing Testing and debugging, Standard testing terminologies, Simple test case	4
2	The 'V' Test Model. Testing Life cycle, during each phase in SDLC requirements, design, coding, installation, maintenance.	6
3	Software Testing Techniques Basis path testing. State transition testing, Control structure testing. Graph based testing, Equivalence partitioning. Boundary value analysis, comparison testing	7
4	Writing the test plan and Test conditions Test strategy, Determination and planning of the Testing work that will be undertaken by the Business Application (BA), Resources needed for this work Risk management for testing Write a formal BA test plan Test cases, Test administration post planning activities.	7
5	Software Defects Defect and Quality. What are Defects? Defects versus Bug, Defects	5

	Types.	
6	Testing Processes Building test data and scripts test file design, entering test data. Executing scripts. Test data and test results. Acceptance testing alpha test and beta test. Testing software installation.	5
7	Software testing tools. Manual testing vs. automated testing. Static testing tools . Tools for test planning. Tools for test design.	5
8	Concepts of software quality Introduction to Quality assurance and quality control, Introduction to CMMI levels, Introduction to Six sigma, software quality audit	6
	Total	60

Reference Books:

Software Engineering- R. S Pressman

Software Testing: Perry

Software Testing Techniques: Beizer

Quality software Project management Robert Futrell PHI edition

Laboratory Programme:

30 hrs

Min. 7 Exercises using win runner and QTP testing tools