MCA507E
SOFTWARETESTING

UNITI:INTRODUCTION

Testing as anEngineeringActivity–RoleofProcessinSoftwareQuality–TestingasaProcess–BasicDefinitions-SoftwareTestingPrinciples-TheTester'sRoleina SoftwareDevelopmentOrganization–OriginsofDefects-DefectClasses-TheDefectRepositoryandTestDesign- DefectExamples–.Developer/TesterSupportforDevelopingaDefectRepository

UNITII: TESTCASEDESIGN

IntroductiontoTestingDesignStrategies–TheSmarterTesterTestCaseDesign StrategiesUsingBlackBox ApproachtoTestCaseDesignRandom testing –Requirementsbased testing positive andnegative testing Boundary Value Analysis–decisiontables-EquivalenceClass Partitioningstate-basedtesting-cause-effectgraphingerrorguessingcompatibilitytestinguserdocumentationtesting domaint estingUsingWhite–BoxApproachtoTestdesign-TestAdequacyCriteria-statictestingvs.structuraltesting-codefunctionaltestingCoverageandControlFlow GraphsCoveringCodeLogic-PathsTheirRoleinWhite–boxBasedTestDesign-codecomplexitytestingEvaluatingTestAdequacyCriteria.

UNIT III: LEVELSOFTESTING

TheNeedforLevelsofTesting- UnitTestUnitTestPlanning-DesigningtheUnittests.TheTestHarness-RunningtheUnit tests andRecordingresults integration tests–DesigningIntegrationTests–IntegrationTestPlanning- scenariotesting–defectbashelimination–SystemTestingtypesofsystemtestingAcceptancetestingperformancetestingRegressionTestinginternationalizationtestingad-hoctestingAlphaBetaTests-testing-OO-systems usabilityandaccessibilitytesting

UNIT IV: TEST MANAGEMENT (10)

Peopleandorganizationalissuesintestingorganizationstructuresfortestingteamstestingservices-TestPlanningTestPlanComponentsTestPlanAttachmentsLocatingTestItemstestmanagementtestprocess-ReportingTestResults–TherleofthreegroupsinTestPlanningandPolicyDevelopment-Introducingthetest specialistSkillsneededbyatestspecialistBuildingaTestingGroup.

CONTROLLINGANDMONITORING

Softwaretestautomation-skillsneededforautomation-scopeofautomationdesignandarchitectureforautomation-requirementsforatesttool-challengesinautomationTestmetricsandmeasurements-project,MeetingsReportsandControlIssues-CriteriaandproductivitymetricsStatusprogressforTestCompletion-SCM–Typesofreviews-Developingareviewprogram-ComponentsofReviewPlans–Reporting ReviewResults.Evaluatingsoftware qualitydefectpreventiontestingmaturitymodel

TEXT BOOKS:

1. Srinivasan Desikan and Gopalaswamy Ramesh, "Software Testing – Principles andPractices", Pearson education, 2006.
2. Aditya P.Mathur, "Foundations of Software Testing", Pearson Education,2008.

REFERENCES:
1. Boris Beizer, "Software Testing Techniques", Second Edition,Dreamtech, 2003
2. Elfriede Dustin, "Effective Software Testing", First Edition, Pearson Education, 2003.
3. Renu Rajani, Pradeep Oak, "Software Testing Effective Methods, Tools andTechniques", Tata McGraw Hill, 2004.