



GUJARAT TECHNOLOGICAL UNIVERSITY
Syllabus for Bachelor of Vocation (B.Voc.), 4th Semester
Branch: Information Technology
Subject Name: Test Engineer
Subject Code: 1140507

Type of subject: On-Job Training (Elective)

Prerequisite: NA

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE (E)	PA (M)	ESE (V)	PA (I)		
0	0	15	15	0	0	100	100	200

L- Lectures; T- Tutorial/Teacher Guided Student Activity; P- Practical; C- Credit; ESE- End Semester Examination; PA-Progressive Assessment

OJT Hands on Exercise/Training:

Sr. No.	Content	Total Hrs.	Weightage (%)
1	<p>Design tests for software products/applications/modules</p> <p>PC1. identify any issues with the requirements for testing and clarify these with appropriate people</p> <p>PC2. access reusable scenarios, test cases, scripts and tools from your organization's knowledge base</p> <p>PC3. create or modify high level scenarios relevant to the requirements</p> <p>PC4. create or modify test cases relevant to the requirements</p> <p>PC5. identify test cases that can be automated feasibly</p> <p>PC6. create or modify automated scripts relevant to the requirements</p> <p>PC7. access or create test data relevant to the requirements</p> <p>PC8. create a test plan to cover all the requirements</p> <p>PC9. review the test plan, test cases and/or automated scripts with appropriate people</p> <p>PC10. rework the test plan, test cases and/or automated scripts, incorporating feedback</p> <p>PC11. submit the test plan, test cases and/or automated scripts for approval by appropriate people</p> <p>PC12. update your organization's knowledge base with your experiences of designing tests for software products/applications/modules</p> <p>PC13. comply with your organization's policies, procedures and guidelines when designing tests for software products/applications/modules</p>	60	30
2	<p>Carry out automated tests on software products/applications/modules</p> <p>PC1. establish with appropriate people the nature the testing to be</p>	70	35



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	<p>carried out and the test management tool to be used</p> <p>PC2. verify that you have the latest versions of the test cases and automated scripts</p> <p>PC3. verify that you are working with the correct versions of the application and data</p> <p>PC4. execute the automated test scripts according to instructions</p> <p>PC5. log the test progress, results and defects discovered, using the agreed test management tool</p> <p>PC6. analyze the results to develop a clear understanding of the defects</p> <p>PC7. articulate clearly your understanding of the defects during defect management discussions</p> <p>PC8. obtain advice and guidance from appropriate people in case of problems with testing that are beyond your level of competence or authority to resolve</p> <p>PC9. comply with your organization's policies, procedures and guidelines when carrying out automated tests on software products/applications/modules</p>		
3	<p>Carry out manual tests on software products/applications/modules</p> <p>PC1. establish with appropriate people the nature the testing to be carried out and the test management tool to be used</p> <p>PC2. verify that you have the latest versions of the test cases and automated scripts</p> <p>PC3. verify that you are working with the correct versions of the application and data</p> <p>PC4. execute the manual test scripts according to instructions and take appropriate action in event of failure</p> <p>PC5. Verify conformance to usability guidelines in case of usability testing</p> <p>PC6. log the test progress, results and defects discovered, using the agreed test management tool</p> <p>PC7. analyze results to develop a clear understanding of the defects</p> <p>PC8. articulate clearly your understanding of the defects during defect management discussions</p> <p>PC9. Obtain advice and guidance from appropriate people in case of problems with testing that are beyond your level of competence or authority to resolve</p> <p>PC10. comply with your organization's policies, procedures and guidelines when carrying out manual tests on software products/applications/modules</p>	70	35
	Total	200	100



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Course Outcomes:

Sr. No.	CO Statement	Marks % Weightage
CO-1	Design various test modules for application and software.	30
CO-2	Problem solving and defect management with help of Automated test for software products/applications	35
CO-3	Problem solving and defect management with help of Manual test for software products/applications	35

Reference:

https://nsdcindia.org/sites/default/files/QP_SSC-Q1301_Test-Engineer.pdf