

GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Computer Applications (Integrated) Year IV – (Semester-VII) (w.e.f. July 2016) Indicative Practical List

Subject Name: Software Testing

Subject Code: 4470631

a) General Guidelines for Practical

- Student must consider own project prepared in previous semester
- Project must have proper documentation
- Project Must contain three Tasks (Team Size 4)
 - i. Test planning: Preparation of Test Plan and Quality Plan
 - ii. Preparation of Test Cases for various types of cases and Test Data (Minimum 100 Test Scenarios) covering Lifecycle activities.
 - iii. Test script and execution of test cases
 - iv. Defect reporting by integration with MS excel, Database, Defect management tool and mail application, Test Result Analysis

b) Knowledge about the following is expected to be demonstrated.

- Proper Functional knowledge about the purpose of Software Testing
- List of Testing techniques applied
- Testing tools execution
- Test Plan and Test Case template
- Proper understanding about Testing process and testing tools used
- Proper understanding about Defect, Analysis and Testing result analysis

Part	Course Content	Out put
I	• Test scenario and test case creation and review • Test data creation and update (in line with changes in business rules) • Test execution (manual and automated) Type: Manual and Automated (using Tool)	Defect Analysis Report
II	• Functional test automation – script creation and execution for a function flow Type: Manual / Automated (using Tool)	
III	• Performance testing for functionality for 50 concurrent users Type:Automated (using Tool)	• Performance bottleneck analysis report for infrastructure team and product team

IV	• Security testing for architecture, source code and user interface • Vulnerability testing with help of open source and licensed tools • References: www.owasp.org :OWASP guideline compliance verification Type: Manual / Automated (using Tool)	• Vulnerability Assessment report
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Software Testing Automation Tools - Selenium IDE, JMeter, Selenium WebDriver
Scripting: Java, Python

c) Project Document Content

The project has to be well-documented in the form of a Project Report (at least 50 pages), content comprising of as below:

Task	Content
I	Test Plan, Quality Plan
II	Test Cases, test Data, Test Scripts
III	Defect Log
IV	Testing Result Analysis

d) Evaluation Parameters :

- Evaluation of the projects would be done considering the test plan, quality plan and testing tools available at the Institute. The main parameter of assessment would be the ability of the students to understand Software Testing process and execution of software testing. Though the project and domain specific knowledge would be not be assessed for, the evaluation would predominantly depend on the students' ability to explain, modify or execute testing.
- Test Case design standards should have been implemented.
- Though the project would be evaluated for the entire team, the examiner should emphasize on the contribution of each team member in the project
- Marks Breakup

Project	10
Performance	10
Viva	10