

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VII • EXAMINATION – WINTER 2013

Subject Code: 173102**Date: 03-12-2013****Subject Name: Software Testing and Quality****Time: 10:30 TO 01:00****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define and explain following terms **08**
(1) Testing (2) Failure (3) Verification (4) Validation
- (b) What is a test case? Explain with an example. **06**
- Q.2** (a) Explain test levels with the use of V model. **07**
- (b) What is Dynamic unit testing? Explain it with its environment. **07**
- OR**
- (b) What is CFG? How input test data can be generated for control flow testing? **07**
- Q.3** (a) List all path selection criteria and explain any one in detail **07**
- (b) What is DFG? How it differs from CFG? Give an example. **07**
- OR**
- Q.3** (a) Define Domain error. Give its types and explain. **07**
- (b) List and explain McCall's quality factors. **07**
- Q.4** (a) Give types of System Integration Techniques. Explain any one. **07**
- (b) What are the issues related with the integration of OTS? Explain OTS component testing. **07**
- OR**
- Q.4** (a) Give the significance of Robustness test. Give its types and explain one. **07**
- (b) What is functional testing? Discuss the complexity of applying functional testing **07**
- Q.5** Attempt ANY FOUR **14**
- (a) Boundary Value Analysis.
- (b) Beta testing
- (c) Metric for monitoring test execution.
- (d) Cycle based test execution strategy.
- (e) Stateless v/s State oriented systems.
- (f) Closed inequality error for reduced domain.
- (g) Characteristics of testable requirements.
- (h) Black box v/s White box testing.
