

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (OLD) - EXAMINATION – SUMMER 2017****Subject Code: 173102****Date: 29/04/2017****Subject Name: Software Testing and Quality (Department Elective - I)****Time: 02:30 PM to 05:00 PM****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 following terms: **07**
(1) Verification (4)Error
(2) Validation (5)Fault
(3) Failure (6)Defect
- (b) Explain Development & Testing in V model. **07**
- Q.2** (a) Briefly Explain Dynamic Unit testing. **07**
(b) What is Control Flow Graph (CFG)? Explain symbols used in CFG with example. **07**
- OR**
- (b) What do you mean by data flow anomaly? Explain why program anomalies need not lead to program failure? **07**
- Q.3** (a) State four kinds of domain errors and explain how they occur? **07**
(b) List common approaches to performing system integration. Discuss the advantages & disadvantages of top-down and bottom-up approaches to integration testing. **07**
- OR**
- Q.3** (a) Explain in brief: off-the-shelf component testing. **07**
(b) Explain types of functionality test. **07**
- Q.4** (a) What do you mean by test oracle? Explain four common types of oracles. **07**
(b) In brief explain “Requirement Identification”. **07**
- OR**
- Q.4** (a) In brief explain the GUI test. **07**
(b) Define McCall’s quality factors. **07**
- Q.5** In brief explain any Four. **14**
(a) Black box v/s White box testing.
(b) Test selection criteria
(c) Robustness testing.
(d) Code review process in unit testing
(e) Mutation testing.
(f) Beta testing.
