

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA Integrated - SEMESTER- VII-EXAMINATION – WINTER 2018

Subject Code: 4470631**Date: 27-11-2018****Subject Name: Software Testing****Time: 10.30 am to 1.00 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)** Do as directed **07**
1. Differentiate Failure, Defect and Error [2]
 2. Differentiate Verification and Validation [1]
 3. Static Testing and Dynamic Testing [1]
 4. Define Mutation Testing and Sanity Testing [2]
 5. Alpha Testing and Beta Testing [1]
- (b)** What is Requirement Traceability matrix? Write about the requirement traceability matrix and its role in software testing. **07**
- Q.2 (a)** What do you mean by Verification and Validation? Briefly write about various Verification and validation activities. **07**
- (b)** Why do bugs occur? Classify bugs based on SDLC. **07**
- OR**
- (b)** Define Testing. List and explain Testing Principles. **07**
- Q.3 (a)** List different Black-Box testings. Write about Equivalence Class Testing with examples. **07**
- (b)** Describe Inspection Process and benefits of Inspection Process. **07**
- OR**
- Q.3 (a)** What is the need of White-Box Testing? Describe Basis Path Testing and Cyclomatic Complexity with examples. **07**
- (b)** What is the need of Regression Testing? Give a note on Regression Testing Techniques. **07**
- Q.4 (a)** What is 'COTS' Testing? Briefly write about 'COTS' Test process. **07**
- (b)** Give a brief note on **07**
- a. Smoke Testing
 - b. Data Warehouse Testing
- OR**
- Q.4 (a)** Define Compatibility Testing. What are the different types of Compatibility? Write about internationalisation and Testing of internationalisation. **07**
- (b)** What are the various risks associated with new technologies? Describe them. **07**
- Q.5 (a)** What is the difference between Test Scenarios and Test Cases? Discuss the template for test cases. **07**
- (b)** What is meant by testing tool? What are the guidelines for selecting a testing tool? Briefly write about automated testing tool. **07**
- OR**
- Q.5 (a)** Define Test Metric. What is the difference between Product Metrics and Process Metrics? Discuss various aspects of efficiency in software metrics. **07**
- (b)** Give a brief note on the roles and responsibilities in software quality profession. **07**
