

SOFTWARE TESTING METHODOLOGIES

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

*Question paper consists of Part-A and Part-B**Answer ALL sub questions from Part-A**Answer any THREE questions from Part-B*

PART-A (22 Marks)

1. a) List and explain reasons for testing. [4]
- b) Write about verification and validation goals. [3]
- c) List and Explain various types Mutation Testing. [4]
- d) Discuss about graph matrices. [3]
- e) Why should integrate JIRA with QTest? Explain briefly. [4]
- f) List and Explain categories of System Testing. [4]

PART-B (3x16 = 48 Marks)

- 2 a) Explain fundamental principles of testing. [8]
- b) Discuss reasons for different levels of testing and characteristics of good testing in life cycle model. [8]
- 3 a) Discuss in detail static and dynamic verification and validation. [8]
- b) Explain black box testing in detail. [8]
- 4 a) What is static testing? Discuss in detail about parts of static testing. [8]
- b) Define basis path testing. Explain various steps to calculate the independent paths. [8]
5. What are the different regression testing tools and techniques? Explain in detail. [16]
6. a) Discuss the minimization of test suite with an example. [8]
- b) Explain how to eliminate defects using fix backlog and backlog management index. [8]
7. a) Explain fundamental attributes of good automated test cases. [8]
- b) Write about
 - i. Web based system testing
 - ii. Mobile system testing [8]