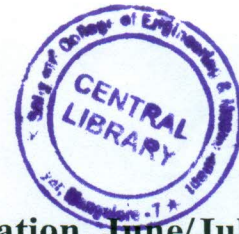10CS842

Eighth Semester B.E. Degree Examination, June/July 2017
Software Testing

Time: 3 hrs.

Max. Marks:100

Note: *Answer FIVE full questions, selecting
at least TWO questions from each part.*

PART – A

1 a. Explain the perspective testing definitions of the following:
   i) Errors   ii) Fault   iii) Failure
   iv) Incident   v) Test   vi) Test case
   and draw the flow diagram of a testing life cycle.   **(10 Marks)**
   b. Explain in details about functional testing and structural testing.   **(10 Marks)**

2 a. Explain about equivalence class testing with respect to:
   i) Weak normal   ii) Strong normal
   iii) Weak robust   iv) Strong robust   **(04 Marks)**
   b. With examples, explain boundary value analysis with respect to:
   i) Generalizing boundary value
   ii) Limitations of boundary value   **(08 Marks)**
   c. Explain test cases for the triangle problem with respect to decision table based testing with examples.   **(08 Marks)**

3 a. Explain in details about McCabe's basis path method using graph theory.   **(10 Marks)**
   b. Explain about slice based testing in a data flow testing.   **(10 Marks)**

4 a. Draw the display screens of both Simple Automatic Teller Machine (SATM) terminal and built with fifteen screens for the SATM system.   **(10 Marks)**
   b. Explain about decomposition based integration with respect to integration testing. **(10 Marks)**

PART – B

5 a. Explain about three basic concept are derived from functional strategies for thread testing in a system testing.   **(10 Marks)**
   b. Explain about client/server testing with respect to interaction testing.   **(10 Marks)**

6 a. Draw the block diagram of relation of verification and validation activities with respect to artifacts produced in a software development project.   **(10 Marks)**
   b. Illustrate the relation among dependability properties in a test analysis within a software process.   **(10 Marks)**

7 a. Explain about assumptions in fault-based testing and mutation analysis terminology.
               (10 Marks)
   b. Explain in details about: i) Scaffolding,   ii) Test oracles.   **(10 Marks)**

8   Write short notes on the following:
   a. Quality and process
   b. The quality team
   c. Organizing documents
   d. Test design specification documents.   **(20 Marks)**

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