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Eighth Semester B.E. Degree Examination, Dec.2014/Jan. 2015
Software Testing

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1
 - a. Define the terms : error, fault, failure, test and test case. (05 Marks)
 - b. Draw a neat flowchart for the traditional triangle program implementation. (05 Marks)
 - c. Define the problem statement of the NextDate function and write its implementation program. (10 Marks)
- 2
 - a. Explain the following : Boundary Value Analysis, Robustness testing and special value testing. (06 Marks)
 - b. Explain the equivalence class test cases for the commission problem. (06 Marks)
 - c. What are decision tables? Explain the basic decision table terms and write a decision table for the triangle problem. (08 Marks)
- 3
 - a. Define basis path testing. Explain the McCabe's basis path method with suitable example. (10 Marks)
 - b. Design a program graph and DD – path graph for the commission program. (10 Marks)
- 4
 - a. Explain the simple Automatic Teller Machine (SATM) system with screens, context diagram and entity/relationship model. (10 Marks)
 - b. Explain Top-down, Bottom-up and sandwich integration, with a suitable example. (10 Marks)

PART – B

- 5
 - a. Explain the functional strategies for thread testing. (10 Marks)
 - b. Distinguish progression and regression testing methods. (05 Marks)
 - c. Write a note on client/server testing. (05 Marks)
- 6
 - a. Explain validation and verification activities, with suitable examples. (05 Marks)
 - b. Discuss various dependability properties used in software testing and analysis activities. (05 Marks)
 - c. Explain the following forms :sensitivity, redundancy, partition, visibility and feedback. (10 Marks)
- 7
 - a. What is meant by fault – based testing? Discuss the assumptions involved in fault – based testing. (05 Marks)
 - b. Explain the concept of self –based as oracles. (07 Marks)
 - c. Define scaffolding. With a suitable example, discuss generic versus specific scaffolding concepts. (08 Marks)
- 8
 - a. Write short notes on : cleanroom process model and the quality team. (10 Marks)
 - b. Explain the standard organization of an analysis and test plan, in detail. (10 Marks)