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Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020 Introduction to Software Testing

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing full question from each module.

Module-1

- 1 a. Define Test-case. Explain test-case information with sample template. (08 Marks)
b. Discuss the types of test metrics used in software testing, in detail. (08 Marks)

OR

- 2 a. Define testing. Explain debugging cycle with diagram. (08 Marks)
b. Distinguish between specification based testing and code-based testing. (08 Marks)

Module-2

- 3 a. Draw the display screens of both Simple Automatic Teller Machine (SATM) terminal and built with fifteen screens for the SATM system. (08 Marks)
b. Draw the data-flow diagram for structure triangle program implementation. (08 Marks)

OR

- 4 a. Discuss in detail, the systematic procedure for equivalence partitioning method. (08 Marks)
b. Explain about decision tables, construct decision table of triangle, is accepts three integer a, b and c are side inputs, equilateral, scalene, isosceles, or not a triangle and satisfy the following conditions $a < b + c$, $b < a + c$ and $c < a + b$. (08 Marks)

Module-3

- 5 a. Explain the following (i) Test case (ii) Test suite (iii) Test adequacy criteria (iv) Test case specification. (08 Marks)
b. Explain mutation analysis terminologies. (08 Marks)

OR

- 6 a. What is path testing? Explain briefly different path testing strategies. (08 Marks)
b. Define the various data flow criteria. (08 Marks)

Module-4

- 7 a. Write a note on : i) Partition ii) Feedback iii) Restriction iv) Redundancy. (08 Marks)
b. With reference to test execution, explain the concept of scaffolding and test oracles. (08 Marks)

OR

- 8 a. Explain the following : i) Quality process ii) Quality goals. (08 Marks)
b. Explain about : i) Task schedule ii) Quality team. (08 Marks)

Module-5

- 9 a. Write a short note on :
i) Stress testing ii) Regression testing iii) Acceptance testing iv) Unit testing. (08 Marks)
b. Explain the following in terms of integration testing :
i) Top-Down ii) Bottom-Up iii) Sandwich iv) Threads. (08 Marks)

OR

- 10 a. Explain testing components and assemblies. (08 Marks)
b. Explain pair-wise integration testing with example. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg, $42+8=50$, will be treated as malpractice.