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16/17MCA43

Fourth Semester MCA Degree Examination, June/July 2019 Software Testing and Practices

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. What is software quality? Explain the same with respect to quality attributes. (08 Marks)
b. What is oracle? Explain the role of oracle in assessing the program behavior. (08 Marks)

OR

- 2 a. Discuss the different types of test metrics. (08 Marks)
b. How BoR constraint set will be generate? Explain. (08 Marks)

Module-2

- 3 a. Compare functional and structural testing with respect to Venn diagram. (08 Marks)
b. Write a program for triangle problem with data flow diagram. (08 Marks)

OR

- 4 a. Write a program to implement next date function. (08 Marks)
b. Write a program to compute sales commission. (08 Marks)

Module-3

- 5 a. Write test cases for the triangle problem with respect to boundary value analysis. (08 Marks)
b. Write test cases for next date function using equivalence class technique. (08 Marks)

OR

- 6 a. Write test cases for the commission problem using equivalence class approach. (08 Marks)
b. Write test cases for the triangle problem using decision table approach. (08 Marks)

Module-4

- 7 a. What is basis path testing? Explain with respect to McCabe's basis path method. (08 Marks)
b. Define du-path. Explain the same with respect to total locks in the commission problem. (08 Marks)

OR

- 8 a. Discuss about rapid prototyping life cycle model with neat diagram. (08 Marks)
b. Draw the content diagram and data flow diagram of the SATM system. (08 Marks)

Module-5

- 9 a. Discuss the assumptions in fault-based testing. (04 Marks)
b. Explain the terminologies in mutation-analysis. (05 Marks)
c. Discuss the variations on mutation analysis. (07 Marks)

OR

- 10 a. What is the role of risk management in the quality process? (08 Marks)
b. How test design specification documents are organized? (08 Marks)

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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.