

CBCS SCHEME



15IS63

Sixth Semester B.E. Degree Examination, Dec.2019/Jan.2020 Software Testing

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 testing? Differentiate between functional testing and structural testing. (06 Marks)
- b. Explain the triangle problem statement along with flowchart for traditional implementation. (07 Marks)
- c. Explain several measures of software quality. (03 Marks)

OR

- 2 a. Define the terms : (i) error (ii) fault (iii) failure (iv) incident (v) test case (05 Marks)
- b. With a neat diagram, explain the currency converter system. (05 Marks)
- c. With a neat diagram, summarise several strategies for test generation. (06 Marks)

Module-2

- 3 a. Explain boundary value analysis and write the test cases using boundary value analysis testing for triangle problem. (07 Marks)
- b. Write a short note on decision table with an example. (05 Marks)
- c. Explain overview of assumptions in fault-based testing. (04 Marks)

OR

- 4 a. Explain weak normal, weak robust and strong robust equivalence class testing with next-date problem as an example. (08 Marks)
- b. What are the limitations of boundary value analysis? (04 Marks)
- c. Explain variations on mutation analysis. (04 Marks)

Module-3

- 5 a. Define DD-path. Draw DD-graph for triangle problem. (04 Marks)
- b. Explain metric based testing. (08 Marks)
- c. What is scaffolding? Explain. (04 Marks)

OR

- 6 a. What is cyclomatic complexity? Explain McCabe's basis path method. (06 Marks)
- b. Write a note on define/use testing. (05 Marks)
- c. Explain: (i) Test oracles (ii) Capture and Replay (05 Marks)

Module-4

- 7 a. Write six principles which constitute the core of software testing. (06 Marks)
- b. What are processed quality and analysis strategies in a brief note? (06 Marks)
- c. Explain the features of test design specification documents. (04 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.

OR

- 8 a. Explain: (i) Risk planning (ii) Organizing documents (iii) Monitoring the process (iv) Test and analysis - Report. (10 Marks)
b. Briefly discuss the dependability properties in process framework. (06 Marks)

Module-5

- 9 a. Explain integration testing strategies. (08 Marks)
b. Draw the context diagram of the SATM system and explain the same. (08 Marks)

OR

- 10 a. Briefly describe about : (i) System testing (ii) Acceptance testing. (06 Marks)
b. Explain traditional view of testing levels, alternatives life-cycle models. (10 Marks)

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