

CBCS SCHEME

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18IS62

Sixth Semester B.E. Degree Examination, June/July 2024 Software Testing

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Explain in detail about test case and its execution. (08 Marks)
- b. Define error and fault. Explain sample test plan for sort program. (12 Marks)

OR

- 2 a. Define Software Quality. List and explain the several measures of software quality. (10 Marks)
- b. Explain with neat diagram the Currency converter and Saturn wind shield wiper controller. (10 Marks)

Module-2

- 3 a. Explain the process of Boundary value analysis in detail with example. (10 Marks)
- b. Develop test case using robust worst BVA testing for triangle problem. (10 Marks)

OR

- 4 a. Explain the variants of equivalence class testing. Derive equivalence class test case for next date problem. (10 Marks)
- b. Briefly explain Mutation Analysis step. (05 Marks)
- c. Write note on Mutation Analysis (05 Marks)

Module-3

- 5 a. Illustrate the process of McCabe's basis path method with example. (10 Marks)
- b. Define Do Path graph. Draw program graph and derive DD path graph for triangle problem. (10 Marks)

OR

- 6 a. What is slice based testing? Explain slice based testing with guideline and observation in detail. (12 Marks)
- b. Define scaffolding and test oracle. Explain with example. (08 Marks)

Module-4

- 7 a. List the basic principles in process framework and explain any 2 principle in detail. (10 Marks)
- b. Explain the 2 main steps of orthogonal detect classification. (05 Marks)
- c. Discuss how to improve the processes. (05 Marks)

OR

- 8 a. List and explain steps involved in documenting analysis and test. (10 Marks)
- b. Why organizational factors are needed in process framework? (05 Marks)
- c. Explain dependability properties in process framework. (05 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.

Module-5

- 9 a. Explain SATM system in brief. Draw and explain context diagram and Dataflow diagram of SATM system. (12 Marks)
b. Define Acceptance and regression testing. Explain each of them briefly. (08 Marks)

OR

- 10 a. List all types of integration testing technique and demonstrate any 2 types of integration testing technique with example. (14 Marks)
b. Name various level of testing and illustrate specification based lifecycle model with neat diagram. (06 Marks)

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