

CBCS SCHEME

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17IS63

Sixth Semester B.E. Degree Examination, Jan./Feb. 2023 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. What is software testing? Differentiate between functional testing and structural testing. (06 Marks)
- b. Define software quality. Explain the different measures of software quality. (06 Marks)
- c. Explain the triangle problem statement along with flowchart for traditional implementation. (08 Marks)

OR

- 2 a. Define the terms : i) Error ii) Fault iii) Failure iv) Incident v) test case vi) Usability vii) Correctness viii) Reliability. (08 Marks)
- b. With a neat diagram, explain SATM and currency converter system. (08 Marks)
- c. Explain the NextDate function problem with simple version pseudo-code. (04 Marks)

Module-2

- 3 a. Explain boundary value analysis, mention its limitations write the test case using B.V.A testing for triangle problem. (10 Marks)
- b. Briefly explain the variants of equivalence class testing. Derive equivalence class test cases for next date problem. (10 Marks)

OR

- 4 a. Explain decision table testing and write the test cases using decision table for triangle problem. (10 Marks)
- b. Explain fault based testing with its terminologies and assumptions. (10 Marks)

Module-3

- 5 a. Write a note on : i) Statement testing ii) Branch testing. (10 Marks)
- b. What is DD-path? Explain basis path testing with suitable example. (10 Marks)

OR

- 6 a. Explain Scaffolding? Differentiate between generic and specific scaffolding. (10 Marks)
- b. Explain about slice based testing in a dataflow testing by taking commission problem. (10 Marks)

Module-4

- 7 a. Write six principles which constitute the core of software testing. (10 Marks)
- b. Explain Dependability properties. (10 Marks)

OR

- 8 a. Briefly explain test design specification documents. (10 Marks)
- b. List and explain the different types of Risk planning. (10 Marks)

Module-5

- 9 a. Explain Acceptance testing and usability testing. (10 Marks)
- b. Explain integration testing strategies. (10 Marks)

OR

- 10 a. Explain the context diagram of SATM system. (10 Marks)
- b. Explain call graph based integration testing. (10 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

