

CBCS SCHEME

18IS62



Sixth Semester B.E. Degree Examination, Dec.2024/Jan.2025 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 program behavior insights from a Venn Diagram for functional testing and structural testing. (10 Marks)
- b. Identify and explain fault taxonomies with example. (10 Marks)

OR

- 2 a. With the flowchart for the traditional triangle problem implementation. (10 Marks)
- b. Analyse and explain the SATM screen. (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. Analyze and explain metric – based testing. (10 Marks)
- b. Explain define/Use testing with example. (10 Marks)

OR

- 6 a. Describe about scaffolding. Discuss about Generic versus specific scaffolding. (08 Marks)
- b. Define : (12 Marks)
 - i) Test oracles
 - ii) Self – checks
 - iii) Capture
 - iv) Replay.

Module-4

- 7 a. Explain about the following basic principle of Testing process framework.
i) Sensitivity
ii) Restriction. (08 Marks)
b. What are dependability properties in testing process framework? Explain with diagram. (08 Marks)
c. Write short notes on Test design specification document. (04 Marks)

OR

- 8 a. Explain in detail about the Risk management interms of process and quality management. List out various Risks and their control tactics in both. (10 Marks)
b. Write short notes on the following :
i) Organizing documents
ii) Test and analysis Reports. (10 Marks)

Module-5

- 9 a. Analyze and explain integration testing strategies. (10 Marks)
b. What is regression testing? Explain regression test selection technique. (10 Marks)

OR

- 10 a. Explain Rapid Prototyping Life Cycle with diagram. (10 Marks)
b. Explain Decomposition – Based Integration. (10 Marks)
