

CBCS SCHEME

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17CS552

Fifth Semester B.E. Degree Examination, Feb./Mar. 2022 Introduction to 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 Testing and debugging life cycle with a neat diagram. (10 Marks)
b. Define the following terms of software testing:
i) Error ii) Fault iii) Failure iv) Incident v) Testcase. (10 Marks)

OR

- 2 a. Explain the two fundamental approaches for identifying test cases. (12 Marks)
b. Explain different levels of testing. (08 Marks)

Module-2

- 3 a. Write a pseudocode for improved version of Next Date problem. (10 Marks)
b. Explain:
i) Boundary value analysis
ii) Robustness Testing. (10 Marks)

OR

- 4 a. What are decision tables? Draw the decision table for triangle problem. (10 Marks)
b. Write a pseudocode for improved version of triangle problem. (10 Marks)

Module-3

- 5 a. Explain Fault Based Adequacy criteria. (10 Marks)
b. Explain statement testing and condition testing. (10 Marks)

OR

- 6 a. Define the following:
i) DEF (v, n) ii) USE (v, n) iii) P-use iv) C-use v) Du-path. (10 Marks)
b. Explain Test Coverage Metrics. (10 Marks)

Module-4

- 7 a. Write a short notes on:
i) Scaffolding
ii) Test oracles. (10 Marks)
b. Explain the following principles:
i) Sensitivity ii) Redundancy iii) Restriction iv) Partition v) Visibility. (10 Marks)

OR

- 8 a. Explain:
- i) Cleanroom process model
 - ii) Extreme Programming (XP) (10 Marks)
- b. Explain the following:
- i) Risk planning
 - ii) Process monitoring. (10 Marks)

Module-5

- 9 a. Explain:
- i) Acceptance Testing (10 Marks)
 - ii) Regression Testing (10 Marks)
- b. Explain different integration testing strategies. (10 Marks)

OR

- 10 a. Explain decomposition based integration. (10 Marks)
- b. Explain call Graph-Based integration. (10 Marks)
