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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? Explain the portrays of software testing life cycle. (05 Marks)
b. Define the terms : i) Error ii) Fault iii) Failure iv) Incident v) Test care. (05 Marks)
c. Explain Triangle problem statement along with flowchart for traditional implementation. (10 Marks)

OR

- 2 a. Explain testing and Debugging with a neat diagram. (10 Marks)
b. Explain error and fault Taxonomies. (05 Marks)
c. With a neat diagram, explain the currency converter system. (05 Marks)

Module-2

- 3 a. Explain Boundary value analysis and write the test cases using BVA testing for a triangle problem. (10 Marks)
b. Explain fault based testing with its terminologies and assumptions. (10 Marks)

OR

- 4 a. Briefly explain the variants of equivalence class testing. Derive equivalence class test cases for next date problem. (10 Marks)
b. Explain the format of decision table for refined version of triangle problem. (10 Marks)

Module-3

- 5 a. Write a note on statement testing and branch testing or block converge. (05 Marks)
b. Define DD path. Explain basis path testing with suitable example. (10 Marks)
c. Explain metric based testing. (05 Marks)

OR

- 6 a. What is the use of Data flow Testing? List and define various terms in Define use testing with an example. (10 Marks)
b. What is Scaffolding? Differentiate between generic and specific scaffolding. (05 Marks)
c. Explain : i) Test oracles ii) Capture and replay. (05 Marks)

Module-4

- 7 a. Write a note on :
i) Sensitivity ii) Redundancy iii) Partition iv) Visibility v) Feedback. (10 Marks)
b. Explain dependability Properties. (10 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 document iii) Monitoring the process iv) Quality goals
v) Quality process. (10 Marks)
b. Write a short note on a standard organization of analysis and test plan. (10 Marks)

Module-5

- 9 a. With a neat diagram, explain alternate life cycle specification based model in detail. (10 Marks)
b. Explain decomposition based integration testing. (10 Marks)

OR

- 10 a. Explain the call graph, based integration with the help of
i) Pair – wise integration (10 Marks)
ii) Neighborhood integration (10 Marks)
b. Explain the context diagram of ATM system.
