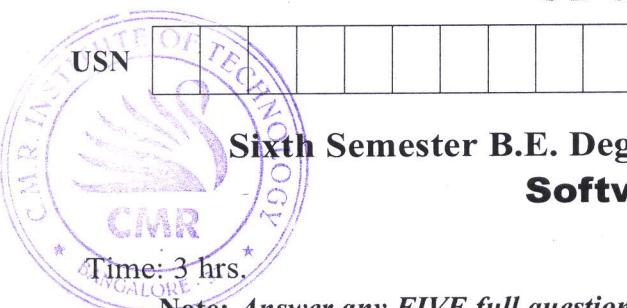


CBCS SCHEME



17IS63

USN

Sixth Semester B.E. Degree Examination, Feb./Mar. 2022 Software Testing

Time: 3 hrs.

Max. Marks: 100

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

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-1

- 1 a. Define the following :
i) Error
ii) Faults
iii) Failure
iv) Test. (04 Marks)
- b. Briefly explain the different types of test metrics. (08 Marks)
- c. With a neat diagram, explain the SATM (Simple Automatic Teller Machine) System. (08 Marks)

OR

- 2 a. Explain the following :
i) Testability
ii) Verification (04 Marks)
- b. Write a structured programming version of a triangle program implementation. (08 Marks)
- c. With a neat diagram, explain levels of testing. (08 Marks)

Module-2

- 3 a. Explain the following :
i) Equivalence partitioning
ii) Boundary value analysis. (04 Marks)
- b. With a neat figure, explain about
i) Robustness testing
ii) Worst case testing. (08 Marks)
- c. Explain fault based adequacy criteria. (08 Marks)

OR

- 4 a. Explain Random testing with an example. (04 Marks)
- b. Explain the basic decision table terms. Draw the decision table for triangular problem. (08 Marks)
- c. What is mutation analysis? Explain mutation analysis terminology. (08 Marks)

Module-3

- 5 a. Write a short note on dataflow converge with complex structure. (04 Marks)
- b. Describe the following with an example :
i) Statement testing
ii) Branch testing. (08 Marks)
- c. With the help of commission problem, derive du paths for variables locks, stocks, barrels, sales and commission. (08 Marks)



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OR

- 6 a. Write a note on slice based testing. (04 Marks)
b. Discuss:
 i) Scaffolding
 ii) Caphere and Replay. (08 Marks)
c. Explain McCabe's basis path testing method with an example. (08 Marks)

Module-4

- 7 a. Write a quality goal of a software system. (04 Marks)
b. Explain the following principles:
 i) Sensitivity
 ii) Redundancy
 iii) Partition
 iv) Visibility. (08 Marks)
c. List and explain dependability properties with examples. (08 Marks)

OR

- 8 a. Write the steps to organizing the documents. (04 Marks)
b. Explain the following :
 i) Risk planning
 ii) Monitoring the process. (08 Marks)
c. How to improve the quality process? (08 Marks)

Module-5

- 9 a. Explain acceptance testing.. (04 Marks)
b. Explain different integration testing strategies. (08 Marks)
c. Explain path based integration testing. (08 Marks)

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OR

- 10 a. Explain call graph based integration. (04 Marks)
b. What is Regression testing? What are the different regression testing strategies? Explain. (08 Marks)
c. Explain the upper level SATM Finite state machine. (08 Marks)

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