

CBCS SCHEME

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18MCA351

Third Semester MCA Degree Examination, July/August 2022 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. Define the following : i) Error ii) Faults iii) Failures. (06 Marks)
b. Discuss about dynamic quality attributes. (06 Marks)
c. Explain the types of metrics used in software testing. (08 Marks)

OR

- 2 a. How defect management is handled in software testing? Explain. (10 Marks)
b. Discuss the role of static testing in assessing the quality of the software. (10 Marks)

Module-2

- 3 a. Compare functional testing and structural testing with respect to Veen Diagram. (08 Marks)
b. Describe logic and interface faults. (04 Marks)
c. Write a program to implement triangle problem. (08 Marks)

OR

- 4 a. Write a program to calculate sales commission for locks, stocks and barrels based on the following constraints :
i) Up to \$1000 – 10% commission
ii) 15% on the next \$800
iii) 20% on any sales in excess of \$1800. (10 Marks)
b. How ATM system communicates with bank customer? Explain. (10 Marks)

Module-3

- 5 a. Discuss about robustness and worst – case test cases for a function of two variables. (06 Marks)
b. Write boundary value analysis test cases for triangle problem. (06 Marks)
c. Write random Testcases for the commission problem. (08 Marks)

OR

- 6 a. Discuss Equivalence class testcases for the Next Date Function. (10 Marks)
b. Explain Decision Table-Based Testing with respect to triangle problem. (10 Marks)

Module-4

- 7 a. How path testing is done based on metric – based? Discuss. (10 Marks)
b. What is Bass Path Testing? Explain the same with respect to McCabe's method. (10 Marks)

OR

- 8 a. Discuss DD – Paths of the commission problem program. (10 Marks)
b. Explain the role of alternative life cycle models in levels of testing. (10 Marks)

Module-5

- 9 a. Discuss the hypothesis and terminologies in fault-based testing. (10 Marks)
b. How mutation analysis is done? Explain. (10 Marks)

OR

- 10 a. Describe the role of risk management in monitoring the process. (10 Marks)
b. Define scaffolding. Explain the same with respect to Generic and specific. (10 Marks)
