18MCA351

USN

Third Semester MCA 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 quality? Explain software quality with quality attributes.   **(10 Marks)**
     b. Explain errors, faults and failures in the process of programming and testing with a neat diagram.   **(10 Marks)**

OR

2   a. Discuss different types of testing metrics.   **(10 Marks)**
     b. Explain different steps of testing and debugging.   **(10 Marks)**

Module-2

3   a. Explain typical testing life cycle with an illustration.   **(10 Marks)**
     b. Describe SATM screen with problem statement.   **(10 Marks)**

OR

4   a. State and explain data flow diagram for triangle problem.   **(10 Marks)**
     b. Explain program behaviour and tested behavior with Venn diagram.   **(10 Marks)**

Module-3

5   a. Explain Boundary value analysis with example.   **(10 Marks)**
     b. Write briefly about equivalence class test for next date function.   **(10 Marks)**

OR

6   a. What is equivalence class test, what are the different forms of equivalence class testing?   **(10 Marks)**
     b. Explain decision table for triangle problem.   **(10 Marks)**

Module-4

7   a. Explain DD path for triangle problem.   **(10 Marks)**
     b. Illustrate waterfall and spinoff system with example.   **(10 Marks)**

OR

8   a. Briefly explain slice based testing and metric based testing.   **(10 Marks)**
     b. Write the guidelines for data flow testing.   **(10 Marks)**

Module-5

9   a. Explain mutation analysis and faults based adequacy criteria.   **(10 Marks)**
     b. Illustrate analysis and test plan.   **(10 Marks)**

OR

10   a. Briefly explain in brief scaffolding with proper steps.   **(10 Marks)**
     b. Explain test oracles with a neat diagram and steps.   **(10 Marks)**

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