CBCS SCHEME

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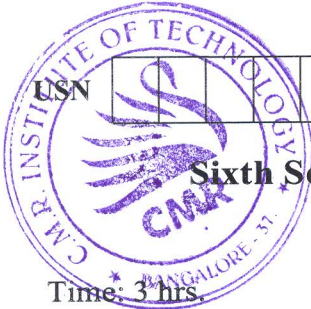### Sixth Semester B.E. Degree Examination, June/July 2023
Software Testing

Time: 3 hrs.   Max. Marks: 100

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

Module-1

1   a. Explain program behavior insights from a Venn Diagram for functional testing and structural testing. **(10 Marks)**
    b. Identify and explain fault taxonomies with example. **(10 Marks)**

OR

2   a. With the flowchart for the traditional triangle problem implementation. **(10 Marks)**
    b. Analyse and explain the SATM screen. **(10 Marks)**

Module-2

3   a. Write a program to solve the triangle problem. Derive test cases for program based on boundary value analysis. **(10 Marks)**
    b. Write a program to solve commission problem. Analyze it from the perspective of equivalence class testing and derive the test cases. **(10 Marks)**

OR

4   a. Write a program to solve the triangle problem. Derive test cases for program based on decision table approach. **(10 Marks)**
    b. List the assumptions made in fault based testing and explain the mutation analysis with sample program. **(10 Marks)**

Module-3

5   a. Analyze and explain metric – based testing. **(10 Marks)**
    b. Explain define/Use testing with example. **(10 Marks)**

OR

6   a. Describe about scaffolding. Discuss about Generic versus specific scaffolding. **(08 Marks)**
    b. Define :
       i)   Test oracles
       ii) Self – checks
       iii) Capture
       iv) Replay. **(12 Marks)**

Module-4

7   a. Explain the basic principles in the frame work for test and analysis. **(12 Marks)**
    b. List and explain the dependability properties test and analysis actives. **(08 Marks)**

OR

8   a. Explain Software Reliability Engineered Testing (SRET) approach with diagram. **(10 Marks)**
    b. Identify and explain risk management in quality plan with respect to generic and specific issues. **(10 Marks)**

Module-5

9   a. Analyze and explain integration testing strategies.   (10 Marks)

      b. What is regression testing? Explain regression test selection technique.   (10 Marks)

OR

10 a. Explain Rapid Prototyping Life Cycle with diagram.   (10 Marks)

      b. Explain Decomposition – Based Integration.   (10 Marks)

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