

# CBCS SCHEME

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18IS62

## 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)



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**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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