CBCS SCHEME

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18IS62

# Sixth Semester B.E. 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 Testing? Explain the portrays of software testing life cycle. **(05 Marks)**
b. Define the terms : i) Error ii) Fault iii) Failure iv) Incident v) Test care. **(05 Marks)**
c. Explain Triangle problem statement along with flowchart for traditional implementation. **(10 Marks)**

**OR**

2 a. Explain testing and Debugging with a neat diagram. **(10 Marks)**
b. Explain error and fault Taxonomies. **(05 Marks)**
c. With a neat diagram, explain the currency converter system. **(05 Marks)**

### Module-2

3 a. Explain Boundary value analysis and write the test cases using BVA testing for a triangle problem. **(10 Marks)**
b. Explain fault based testing with its terminologies and assumptions. **(10 Marks)**

**OR**

4 a. Briefly explain the variants of equivalence class testing. Derive equivalence class test cases for next date problem. **(10 Marks)**
b. Explain the format of decision table for refined version of triangle problem. **(10 Marks)**

### Module-3

5 a. Write a note on statement testing and branch testing or block converge. **(05 Marks)**
b. Define DD path. Explain basis path testing with suitable example. **(10 Marks)**
c. Explain metric based testing. **(05 Marks)**

**OR**

6 a. What is the use of Data flow Testing? List and define various terms in Define use testing with an example. **(10 Marks)**
b. What is Scaffolding? Differentiate between generic and specific scaffolding. **(05 Marks)**
c. Explain : i) Test oracles ii) Capture and replay. **(05 Marks)**

### Module-4

7 a. Write a note on :
i) Sensitivity ii) Redundancy iii) Partition iv) Visibility v) Feedback. **(10 Marks)**
b. Explain dependability Properties. **(10 Marks)**

**OR**

8 a. Explain :
i) Risk planning ii) Organizing document iii) Monitoring the process iv) Quality goals
v) Quality process. **(10 Marks)**

b. Write a short note on a standard organization of analysis and test plan. **(10 Marks)**

## Module-5

9 a. With a neat diagram, explain alternate life cycle specification based model in detail. **(10 Marks)**

b. Explain decomposition based integration testing. **(10 Marks)**

**OR**

10 a. Explain the call graph, based integration with the help of
i) Pair – wise integration
ii) Neighborhood integration **(10 Marks)**

b. Explain the context diagram of SATM system. **(10 Marks)**

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