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Roll No.

18F123

B.Tech. EXAMINATION, 2024

(Sixth Semester)

(C Scheme) (Main & Re-appear)

(Common for all Branches)

CSE344C

SOFTWARE TESTING

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) With the help of an example illustrate the interdependence of terms error, fault, failure. Also discuss limitations of testing. **8**
(b) Elaborate cause effect graphing based testing technique. **7**
2. (a) Why is it said that there is no absolute proof of correctness of software testing ? Justify with the help of suitable examples. **8**
(b) What is utility of graph theory in software testing ? Discuss key points. **7**

Unit II

3. (a) What are graph metrics ? What is their significance in software testing ? **8**
(b) What is significance of cyclomatic complexity of a program ? Also discuss various methods to compute it. **7**

4. (a) What are the mutants ? Discuss mutation testing. **5**
(b) Discuss domain testing. **5**
(c) What is a driver ? what is its utility in integration testing ? **5**

Unit III

5. What is test case prioritization ? Discuss various techniques for it. **15**
6. What are the key issues in object oriented testing ? Discuss. **15**

Unit IV

7. What is automatic test case generation ? Discuss techniques for it. **15**
8. Write short notes on the following : **15**
 - (a) Class
 - (b) GUI testing.