

SOFTWARE VERIFICATION, VALIDATION AND TESTING

Paper-CSE-450

Time allowed : 3 hours]

[Maximum marks : 75

Note : Attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

1. (a) What are the goals of the software testing ? Explain the software testing life cycle in detail. 8
- (b) Explain the equivalence class method with example. 7
2. Develop a set of test cases for testing the program that determine the roots of a quadratic equation which read in three integer' values range from [0,100] using Cause effect graph. 15

Unit-II

3. What is the need of test case prioritization ? Explain different types of prioritization techniques. 15

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4. (a) What is difference between primary and secondary mutants ? 5
- (b) Explain each data anomalies with examples. 10

Unit-III

5. (a) Explain the testing procedure for unit testing. 7
- (b) Explain call graph based integration with suitable example. 8
6. (a) What are the different issues in testing the object oriented software ? 8
- (b) Discuss the validation methods for class testing. 7

Unit-IV

7. (a) Differentiate between Static and Dynamic tools. 7
- (b) Discuss the criterion for the selection of testing tools. 8
8. (a) What is the need of automation ? Discuss. 7
- (b) Explain the characteristics of modern tools. 8