

No. of Printed Pages : 03

Roll No.

AA-581

M. Tech. EXAMINATION, May 2017

(First Semester)

(B. Scheme) (Re-appear Only)

(CSE)

CSE-501-B

SOFTWARE VERIFICATION, VALIDATION &
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.

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P.T.O.

Unit I

1. (a) What is testability of software ? What are its contributing components ? 5
(b) What is equivalence class partitioning ? Design test cases for triangle problem by using equivalence class partitioning. 10
2. (a) What will be the time taken to test a module 'max' that determines maximum of two integers supplied to it. Suppose for input and comparison of two integers take 1 nano seconds. 5
(b) Explain difference between error, fault, failure and incident with examples of each. 5
(c) What are limitations of testing ? 5

Unit II

3. (a) With the help of an example explain concept of DD-Path. 7.5
(b) What are various approaches to Integration testing ? Explain role of stubs and drives. 7.5

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4. (a) What is mutation testing ? Explain with an example. 5
(b) What are various levels of testing ? Explain in detail. 10

Unit III

5. Describe various test case prioritization techniques in detail. 15
6. (a) Do you agree that performing Unit testing in Object oriented systems is not similar to Unit testing in procedural system ? Justify your statement. 8
(b) Explain message passing technique for testing. 7

Unit IV

7. Describe various dynamic testing tools. 15
8. Write short notes on the following :
 - (a) Regression testing
 - (b) Regular expressions based test case generation. 15

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