Total No. of Questions : 8]   [Total No. of Printed Pages : 2

Roll No ....

MSE - 204

M.E./M.Tech., II Semester

Examination, June 2016

Software Verification Validation And Testing

Time : Three Hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks. Assume data/value if required.

1. a) What are logical bugs? How are they different from syntax bugs? How can we handle logical bugs effectively?   7
   b) Differentiate between the V-shaped software life cycle model and the waterfall model.   7

2. a) What is software testing? What are the limitations of testing? Discuss with the help of examples.   7
   b) Consider a program to perform binary search and generate the test cases using equivalence class testing and decision table based testing.   7

3. a) What is cyclomatic complexity? Discuss different ways to compute it with examples.   7
   b) What is mutation testing? What is the purpose of mutation score? Why are higher order mutants not preferred?   7

4. a) Differentiate between black box and white box testing. Consider a program to find the largest number amongst three numbers generates test cases using one black box testing and one white box testing technique.   7
   b) What are the differences between inspections and walk throughs? Compare the relative merits of both.   7

5. a) Describe testing maturity model.   7
   b) Explain different reliability model.   7

6. a) What is the use of a software test plan document in testing? Is there any standard available.   7
   b) Explain stress, load and performance testing.   7

7. a) What is the relationship between testability and complexity? Discuss the factors which affect the software testability.   7
   b) What are several factors that influence major components of a performance test report?   7

8. Write short note on: 14
   a) Test director
   b) Scalability test
   c) Win Runner
   d) Testing tools

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