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

Roll No ....

MCTA/MCIT-302(A)
M.E./M.Tech. III Semester
Examination, November 2018
Software Testing and Quality Assurance
(Elective)

Time : Three Hours

Maximum Marks : 70

Note: i)   Attempt any five questions.
   ii)   Each question carry equal marks.

1. Explain the difference between the following: 14
   a)   Functional Testing and Structural Testing
   b)   OOA and OOD testing models
   c)   White Box Vs. Black Box testing
   d)   Integration Testing and Incremental Integration Testing.

2. What defect types are most likely to be detected during integration tests of a software system? Describe your choices in terms of both the nature of integration test and the nature of the defect types you select?   14

3. Explain the following: 14
   a)   Statement coverage
   b)   Decision coverage
   c)   Condition coverage
   d)   Defect density

4. a)   List all the requirements of ISO 9000 and ISO 9001.   7
   b)   Write down the test cases to test the calculator program in windows.   7

5. Check the cyclometric complexity for a program of adding 100 integers. It should also check for valid boundaries and valid values. Design the test cases for such code.   14

6. a)   What do you mean by SQA? Explain various activities involved in SQA process in detail.   7
   b)   Explain that how software testing is associated with software quality assurance.   7

7. a)   Product requirements are incomplete and ambiguous. What are the other sources of information you will use to understand requirements better.   7
   b)   Explain productivity model to measure the cost and productivity of the software.   7

8. a)   Explain boundary value analysis with example.   7
   b)   Write a note on: 7
      i)   Cause and effect diagrams
      ii)   Product Quality metrics

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