Roll No. ....   Total Pages : 2

BT-8/M-20   **38004**

SOFTWARE QUALITY MODELS AND TESTING

Paper–CSE-442-E

Department Elective (IV)

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. Explore the relationship between Quality factors and Quality metrics. Discuss Software quality standards and possible problems associated to it for software quality assurance.   15

2. (a) How Formal technical reviews are different from Software reviews ? Discuss.   7

 (b) What is Software quality ? Explore statistical techniques, which ensure quality assurance.   8

UNIT–II

3. How Software reliability is directly related with Software quality ? Discuss Musa's basic execution time model for Software reliability.   15

38004/K/487   **P. T. O.**

4. (a) What gamma failure time model does ? Briefly explain Weibull model. 7

   (b) Explore the different types of Failure. Discuss Duane's model. 8

UNIT–III

5. What is the scope of Software testing ? How does it relate to software quality ? Write a detailed study on white box testing and control structure testing. Which is better amongst them ? 15

6. How Software testing strategies are different from Software testing techniques ? Compare and contrast amongst unit testing and system testing. 15

UNIT–IV

7. Differentiate between Repair and Maintenance. How availability is related to maintainability ? Write the measures of Preventive maintenance. 15

8. What do you understand by Reliable Software ? How errors are detected and corrected automatically ? 15