| **Paper Code: OE-077** | **Roll No.** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

**B.TECH**
**(SEM-VII) THEORY EXAMINATION 2016-17**
**SOFTWARE TESTING AND AUDIT**

**[Time: 3 Hours]**                                                                                    **[Total Marks: 100]**

**Note:   (i) Answer all questions.**
            **(ii) All questions carry equal marks. Be precise in your answer.**
            **(iii) No second answer booklet will be provided.**

1. Attempt any **TWO** of the followings:-                                                            (10×2=20)

(A) Differentiate among Faults, Errors and Failures. Why does software testing need extensive planning? Discuss the testing objectives and indicate the steps involved in test case design.
(B) What is meant by test metrics? Describe various test metrics and measurements.
(C) Discuss the software quality and software reliability with the help of suitable examples.

2. Attempt any **TWO** of the followings:-                                                            (10×2=20)

(A) Differentiate between White box and Black box testing. Discuss the Code coverage testing and Code complexity testing in detail.
(B) What is Requirement based testing? Describe it in detail.
(C) Write short notes on the following:
        (i) Equivalence Partitioning.
        (ii) Model based testing.

3. Attempt any **TWO** of the followings:-                                                            (10×2=20)

(A) What is System integration? Differentiate between Top down and Bottom up integration with a suitable example.
(B) What is Functional versus Non-functional testing? Discuss.
(C) What is Acceptance testing? Describe Acceptance criteria and test cases selection/execution in context of Acceptance testing.

4. Attempt any **TWO** of the followings:                                                            (10×2=20)

(A) Define the term Regression testing and its significance. Discuss the various tools for Regression testing.
(B) Explain Pair testing, exploratory testing and Iterative testing in context of Ad hoc testing.
(C) Write short notes on the followings:
        (i) Selection of Regression tests
        (ii) Dynamic Slicing.

5. Attempt any **TWO** of the followings:                                                            (10×2=20)

(A) Describe Test Planning, Management Execution and Reporting along with their significance in Software Testing.
(B) Describe various Generic requirements for test tool framework in detail.
(C) Write short notes on the following:
        (i) Test tool selection     (ii) Software test Automation.