

Paper Id: **110715**

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B. TECH.
(SEM-VII) THEORY EXAMINATION 2019-20
SOFTWARE TESTING AND AUDIT

Time: 3 Hours**Total Marks: 100****Note:** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief. 2 x 10 = 20**

- a. Explain the testing life cycle.
- b. Software testing is software verification plus software validation. Discuss.
- c. Software testing is an incremental process” justify your statement.
- d. Explain the code walkthrough and inspection briefly.
- e. Explain the difference between white box and black box testing.
- f. Define Risk Matrix.
- g. What are the drivers and stubs? Why are they required?
- h. Explain web application testing. Also explain object oriented testing.
- i. What are the difference between data flow testing and mutation testing.
- j. Define Performance and usability Testing.

SECTION B**2. Attempt any three of the following: 10 x 3= 30**

- a. Explain the boundary value analysis and Equivalence class portioning method.
- b. Explain the Decision table based and cause effect graph technique for test data selection.
- c. Explain the concept of cyclomatic complexity with suitable example in detail.
- d. What is regression testing? What are different risk analysis techniques?
- e. What are debugging techniques? Explain types of debugging techniques.

SECTION C**3. Attempt any one part of the following: 10 x 1 = 10**

- a. Explain the user interface testing and database testing in detail.
- b. What are different software testing tools? Also explain software test plan.

4. Attempt any one part of the following: 10 x 1 = 10

- a. What is object oriented testing? Also explain significance of object oriented testing.
- b. Explain the differences between verification and validation of any software product.

5. Attempt any one part of the following: 10 x 1 = 10

- a. Explain the terms Error, Fault failure, software audit and code review.
- b. Explain the testing Process with a suitable diagram.

6. Attempt any one part of the following: 10 x 1 = 10

- a. What are the different prioritization guidelines to reduce test cases?
- b. Define Big Bang, Call based integration, Decomposition based integration testing.

7. Attempt any one part of the following: 10 x 1 = 10

- a. How formal technical review is different from management review?
- b. Write short notes on- (i) levels of testing (ii) SRS verification Techniques