

Paper Id:

113502

Roll No:

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

*Time: 3 Hours**Total Marks: 70***Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

1. **Attempt all questions in brief.** **2 x 7 = 14**
- a. What is the difference between Black Box and White Box Testing?
 - b. What is Integration testing?
 - c. What are the formal phases of formal review?
 - d. Differentiate between Error, Fault and Bug.
 - e. What is mutation testing?
 - f. Define the term test case, test plan and test scenario in brief.
 - g. What is software testing?

SECTION B

2. **Attempt any three of the following:** **7 x 3 = 21**
- a. Discuss the significance of decision tables in testing. What is the purpose of a rule count? Explain the concept with the help of an example.
 - b. How is risk analysis used in testing? How can we prioritize test cases using risk factor?
 - c. What is structural testing? How is it different from functional testing?
 - d. What is the cause-effect graphing technique? What are basic notations used in a cause effect graph? Why and how are constraints used in such a graph?
 - e. How is data flow testing performed? Is it possible to design data flow test cases manually? Justify your answer.

SECTION C

3. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) Explain the equivalence class testing technique. How is it different from boundary value analysis technique?
 - (b) Differentiate between verification and validation. Describe various verification methods
4. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) What is cyclomatic complexity? Discuss different ways to compute it with examples.
 - (b) What is regression testing? Discuss various categories of selective re-test problem.
5. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) Explain the testing process of Object-Oriented Testing and Explain the issues in Object oriented Techniques.
 - (b) Discuss the static and dynamic testing tools with the help of examples.
6. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) What is Web testing? How does it differ from User interface Testing?
 - (b) Define SRS. What is source code reviews and user documentation verification in software testing?
7. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) What is software quality? Explain all the dimension of software quality in brief.
 - (b) List the various of automation testing Tools. Give the functionality of each tool in brief.