B.TECH
(SEM VII) THEORY EXAMINATION 2018-19
SOFTWARE TESTING AND AUDIT

Time: 3 Hours   *Total Marks: 100*

Note: **1.** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief.   2 x 10 = 20

   a. What is SLDC?
   b. Define the term validation in software testing
   c. When we use decision table testing?
   d. What is path testing?
   e. Define graphing technique.
   f. Explain risk analysis in brief.
   g. What is software test plan?
   h. What is positive testing?
   i. What do you understand from genetic algorithm?
   j. Define test data.

SECTION B

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

   a. Explain Error, Fault, and Failure in terms of software testing.
   b. What are the phases of formal review? Explain in brief.
   c. What is Control flow testing how it is differ from path testing
   d. What is software quality? Explain all the dimensions of software quality in brief?
   e. Describe Class Testing with the help of an example.

SECTION C

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

   (a) What is Web testing? How it is differ from User interface Testing?
   (b) Explain the role of Object Oriented Integration and System Testing in software testing and audit.

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

   (a) Discuss the Levels of Testing and Debugging in detail.
   (b) List the various Software Testing Tools. Give the functionality of each tool in brief.

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

   (a) What is Regression Test cases selection? How we can reduce the number of test cases in Regression Testing?
   (b) Explain the role of cyclomatic Complexity in Structural Testing.

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

(a) What is Functional Testing? Why it is important?

(b) What are basic differences between Data Flow Testing and Mutation Testing?

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

(a)   What is Verification and Validation in software testing? Also Differentiate between Verification and Validation.

(b)   Define SRS. What is source code reviews and user documentation verification in software testing?