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

Time: 3 Hours

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

SECTION A

1. Attempt all questions in brief.

- 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?
- i. Define test data.

SECTION B

2. Attempt any three of the following:

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

SECTION C

Attempt any one part of the following: 3.

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

4. Attempt any one part of the following:

- (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:

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

$10 \times 3 = 30$

 $2 \ge 10 = 20$

 $10 \ge 1 = 10$

Sub Code: NCS -071 Roll No.

Total Marks: 100

 $10 \ge 1 = 10$

 $10 \ge 1 = 10$

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6. Attempt any *one* part of the following:

- (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:

- (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?

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 $10 \ge 1 = 10$