CBCS SCHEME

USN | | | | | | | | | |

17CS552

Fifth Semester B.E. Degree Examination, July/August 2021
Introduction to Software Testing

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions.

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

1 a. Explain Testing and Debugging. Draw Test and Debug cycle neatly. **(10 Marks)**
b. Explain Test Metrics in detail. **(10 Marks)**

2 a. Explain Static Testing. **(10 Marks)**
b. Explain Software Quality and Test Generation Strategies. **(10 Marks)**

3 a. Write pseudocode for improved version of NextDate function. **(10 Marks)**
b. Explain the four variations on Boundary Value analysis. What are its limitations? **(10 Marks)**

4 a. List and explain equivalence class testing with neat diagrams. **(10 Marks)**
b. Explain Decision tables? Draw decision table for the triangle problem. **(10 Marks)**

5 a. Explain Fault Based adequacy criteria and the variations on mutation analysis. **(10 Marks)**
b. Explain (i) Statement testing (ii) Branch testing. **(10 Marks)**

6 a. Explain Basic Path testing. Apply it for the triangle problem. **(10 Marks)**
b. Explain Definition-Use testing and du-path test metrics. **(10 Marks)**

7 a. What are Scaffoldings? Differentiate between Generic and specific scaffolding. **(10 Marks)**
b. Explain the basic principles of Process Framework. **(10 Marks)**

8 a. Explain (i) Quality Goals (ii) Dependability properties. **(10 Marks)**
b. Explain (i) Monitoring the process (ii) Improving the process. **(10 Marks)**

9 a. Explain Integration Testing Strategies. **(10 Marks)**
b. Explain Acceptance testing and Usability testing. **(10 Marks)**

10 a. Explain Call-Graph based Integration. **(10 Marks)**
b. Explain Path – Based Integration. **(10 Marks)**

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