CBCS SCHEME

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15IS63

Sixth Semester B.E. Degree Examination, Feb./Mar. 2022
Software Testing

Time: 3 hrs. Max. Marks: 80

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

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.

Module-1

1 a. Define the following :
i) Error ii) Fault iii) Failure iv) Incident v) Test vi) Test case. **(06 Marks)**

b. Explain in portrays of software testing life cycle. **(04 Marks)**

c. Explain the two fundamental approaches used to identify test cases. **(06 Marks)**

OR

2 a. List six types of faults and explain each with example. **(06 Marks)**

b. Identify problem statement for a triangle with flowchart for traditional implementation. **(05 Marks)**

c. Describe the GUI application currency converter and embedded device Saturn windshield wiper controller. **(05 Marks)**

Module-2

3 a. Explain the usage of Boundary value analysis for a function of two variables and highlight the limitations of Boundary value analysis. **(08 Marks)**

b. Explain weak normal, strong normal weak robust and strong robust equivalence class testing with example. **(08 Marks)**

OR

4 a. Explain the format of decision table. Build decision table for simple version of triangle problem. **(08 Marks)**

b. Explain fault based testing and mutations analysis with terminologies. **(08 Marks)**

Module-3

5 a. What is program graph? Draw program graph for triangle problem. **(08 Marks)**

b. Define DD-path. Draw the DD-path graph for triangle problem. **(08 Marks)**

OR

6 a. Explain predicate node, du-paths and dc-paths. **(06 Marks)**

b. What is scaffolding? Explain the purpose of scaffolding. **(05 Marks)**

c. What is test oracle? Explain self-check oracle with a neat diagram. **(05 Marks)**

Module-4

7 a. Explain Sensitivity, Redundancy, Visibility and Feedback. **(08 Marks)**

b. Explain dependability properties. **(08 Marks)**

OR

8 a. Explain the five core steps of SRET with a neat diagram. **(08 Marks)**

b. Explain risk planning with different types of risks. **(08 Marks)**

Module-5

9 a. Explain integration testing strategies. **(08 Marks)**

b. Explain System Testing and Acceptance testing. **(08 Marks)**

OR

10 a. Explain alternative life cycle models. **(08 Marks)**

b. Explain call graph-base integration. **(08 Marks)**

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