CBCS SCHEME

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21IS63

Sixth Semester B.E. Degree Examination, June/July 2024
Software Testing

Time: 3 hrs. Max. Marks: 100

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

Module-1

1 a. What is Software Testing? Differentiate between functional testing and structural testing with an example. **(10 Marks)**

b. Demonstrate the triangle problem statement along with a flowchart for traditional implementation. **(10 Marks)**

OR

2 a. With a neat diagram, explain the SATM. **(10 Marks)**

b. Classify the types of faults and explain each with an example. **(10 Marks)**

Module-2

3 a. Examine boundary value analysis with the test cases using a triangle problem. **(10 Marks)**

b. Examine the equivalence class testing. Examine the equivalence class test cases for the nextnate function. **(10 Marks)**

OR

4 a. What are the limitations of boundary value analysis and examine the test cases using boundary value analysis testing for commission problem. **(10 Marks)**

b. Explain the format of the decision table. Build a decision table for a simple version of the triangle problem. **(10 Marks)**

Module-3

5 a. Define a program graph. Draw a program graph of the commission problem. **(10 Marks)**

b. Define DD-path. Explain basis path testing with a suitable example. **(10 Marks)**

OR

6 a. Define predicate node, du-paths, dc-path. Give du-path for lock, stock and sales for commission problem. **(10 Marks)**

b. Explain slice-based testing with an example. **(10 Marks)**

Module-4

7 a. Examine the traditional view of testing levels, alternate life cycle model. **(10 Marks)**

b. Compare top-down and bottom-up integration strategies. **(10 Marks)**

OR

8 a. Formulate call graph based integration with the help of : i) Pairwise Integration ii) Neighborhood integration. **(10 Marks)**

b. Define the SAJM system. Demonstrate the entity/relationship model of the SATM system. **(10 Marks)**

Module-5

9 a. Explain the basic concepts of requirement specification. **(10 Marks)**

b. Define the process of ASF testing and illustrate it with an example using the next date function. **(10 Marks)**

OR

10 a. Describe the context of interaction in software testing. **(10 Marks)**

b. What is the taxonomy of interaction? Explain the static interaction in a single process. **(10 Marks)**

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