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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 nextdate 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)
