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Fifth Semester B.E. Degree Examination, June/July 2019 Introduction to Software Testing

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Explain testing and debugging life cycle with a neat diagram. (08 Marks)
b. List and explain different software quality attributes in detail. (08 Marks)

OR

- 2 a. Explain functional testing and structural testing. (08 Marks)
b. Explain different types of software test metrics in detail. (08 Marks)

Module-2

- 3 a. Explain boundary value analysis. Write boundary value test cases for NextDate function. (08 Marks)
b. Write a pseudo code for structured programming version of triangular problem. (08 Marks)

OR

- 4 a. List and explain equivalence class testing with diagram. Write equivalence class test cases for commission problem. (08 Marks)
b. Explain the basic decision table terms. Draw the decision table for triangular problem with rule count. (08 Marks)

Module-3

- 5 a. Explain McCabe's basis path testing method with an example. (08 Marks)
b. What is Fault – based testing? Explain about assumptions in fault – based testing and mutation analysis terminology. (08 Marks)

OR

- 6 a. Explain data flow testing. Derive du paths for variables locks, stocks, barrel, sales and commission variables in commission problem. (08 Marks)
b. Explain about slice based testing in data flow testing. (08 Marks)

Module-4

- 7 a. Explain test oracles and self check as oracle in detail. (08 Marks)
b. Explain the following principles :
i) Sensitivity ii) Redundancy iii) Partition iv) Visibility. (08 Marks)

OR

- 8 a. List and explain dependability properties with examples. (08 Marks)
b. List and explain risks in process and quality management. (08 Marks)

Module-5

- 9 a. Explain different integration testing strategies. (08 Marks)
b. What is Regression testing? What are the different regression testing strategies? (08 Marks)

OR

- 10 a. What is Call – graph based integration testing? Explain the strategies under call based integration testing. (08 Marks)
b. Define MM – path graph. Explain with an example. (08 Marks)

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.