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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Eighth Semester, B.E. - Computer Science and Engineering

Semester End Examination; June - 2017

Software Testing

Time: 3 hrs *Max. Marks: 100*

***Note**: Answer **FIVE** full questions, selecting **ONE** full question from each unit.*

UNIT - I

1. a. With a neat diagram, explain testing life cycle and also discuss about the test cases and test case information. 10

   b. Discuss error and fault taxonomies in details and list the levels of testing. 10

2 a. Discuss in detail, the triangle problem widely used example in software testing literature. 10

   b. Differentiate between functional testing and structural testing with an example. 10

UNIT - II

3 a. Distinguish between Robustness testing, worst case testing and special value testing with examples. 10

   b. Discuss the following :

   i) Weak normal equivalence class testing ii) Strong normal equivalence testing 10

   iii) Weak robust equivalence class testing iv) Strong robust equivalence class testing.

4 a. Discuss how to generalize the boundary valve analysis? What are the limitations? 10

   b. Discuss the first try and second try for the test cases of next data function with suitable tables. 10

UNIT - III

5 a. What are DD Paths? Draw the program graph for triangle problem and list out the DD paths. 10

   b. Differentiate between Top-down integration and Bottom-up integration approaches with examples. 10

6. a Explain water fall-spin off's and specification-based life cycle model. 10

   b. Discuss in detail, call graph-based integration. 10

UNIT - IV

7 a. Describe the system testing with respect to a basis set of requirements specification constructs. 10

   b. Discuss in detail static interaction in single processor, static interaction in multiple processors and dynamic interactions in a single processor. 10

8 a. Describe pseudo-structural system testing and operational profiles in system testing. 10

   b. Discuss client/server testing in interaction testing. 10

UNIT - V

9 a. Describe mutation analysis. Discuss the variations on mutation analysis in detail. 10

   b. Differentiate generic versus specific scaffolding. 10

10a. Discuss in detail about risk planning. 10

   b. Write a note on : 10

   i) Organizing ii) Documents and Analysis iii) Test plan.

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