



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

(An Autonomous Institution affiliated to VTU, Belagavi)

Third Semester, M.Tech. - Computer Engineering (MCEN)

Semester End Examination; Dec - 2017/Jan - 2018

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 Venn diagram, explain the two fundamental approaches used to identify test cases. 10
- b. Define the following with examples: 10
- i) Error ii) Fault iii) Failure iv) Incident v) Test.
- 2 a. State the improved version of triangle problem. Write refined decision table for the triangle problems with at least 6 test cases. Discuss the results. 10
- b. Write a pseudo-code for next date problem and explain with at least 5 test cases. Discuss the results. 10

UNIT - II

- 3 a. Define the following with examples: 10
- i) Defining mode ii) Usage node iii) P-use, C-use
- iv) Definition-Use path v) Definition-Clear path.
- b. Discuss slice-based testing with an example. 10
- 4 a. Develop a decision table for next date function and list atleast 10 test cases. 10
- b. With an example, illustrate call graph-based integration. 10

UNIT - III

- 5 a. Explain the basic concepts for requirement specification. 10
- b. Explain class testing for the currency conversion program considering methods as units. 10
- 6 a. Write the rules about threads and processors to be followed to develop taxonomy of interactions. 10
- b. Consider the object oriented currency conversion application and explain the data flow testing. 10

UNIT - IV

- 7 a. With diagrams, write the MM-path to instantiate November 18, 1999 for an object oriented calendar software. 10
- b. Explain system testing for GUI applications with examples. 10
- 8 a. Explain object-oriented data flow integration testing with an example. 10
- b. Explain integration testing for GUI applications with examples. 10

UNIT - V

- 9 a. Write a note on exploratory testing with an example. 10
- b. Explain model based testing considering an appropriate example. 10
- 10 a. Explain test driven development and automated test execution with an example. 10
- b. Discuss use case based testing and different types of use case-based testing with an example. 10

* * *