



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

(An Autonomous Institution affiliated to VTU, Belgaum)

**Fifth Semester, Master of Computer Application**

**Semester End Examination; Dec. - 2015**

## Software Testing

*Time: 3 hrs*

*Max. Marks: 100*

**Note:** Answer any **FIVE** full questions.

- 1 a. With the help of diagram, discuss the different components of testing life cycle. 10
- b. Compare and contrast functional testing versus structural testing. 4
- c. Modify the problem statement of triangle program and discuss in terms of considerations that is required to include the right angle feature. 6
- 2 a. Explain the random test cases for both triangle program and commission program. 8
- b. What guidelines needs to be followed when the equivalence class testing is applied to different programs? 7
- c. Write a note on decision table-based testing. 5
- 3 a. With relevant diagrams, explain McCabe's Basis path method. 10
- b. Discuss the slice-based testing for commission program. 10
- 4 a. Give an overview of specification-based life cycle models. 10
- b. Write a note on :
  - i) Sink node                               ii) MM-path 10
  - iii) Module-execution path           iv) MM-Path graph
- 5 a. Explain in detail the functional strategies for thread testing. 12
- b. Discuss the static interactions in a single and multiple processors environment. 8
- 6 a. Explain the following: 10
  - i) Quality goals                               ii) Planning and Monitoring
- b. Discuss the variation and validation process in testing. 10
- 7 a. Explain the fault-based adequacy criteria for a given program and a test suite. 10
- b. Compare and contrast generic and specific scaffolding. 10
- 8 a. Write a note on : 8
  - i) Risk planning                               ii) Quality team.
- b. Briefly explain test & analysis strategies and plans. 6
- c. List the guidelines for improving the overall process. 6

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