

Code: 13A05605

B.Tech III Year II Semester (R13) Regular Examinations May/June 2016

**SOFTWARE TESTING METHODOLOGIES**

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

**PART – A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- Define Testing and Debugging.
  - Write any two differences between flow graph and flow chart.
  - Explain Test Databases in Transaction flow testing.
  - Explain loop free path segment.
  - What is Domain Testing?
  - Describe Nonlinear Boundaries.
  - Define path and Path product.
  - Draw four variable KV Chart.
  - Define Dead State.
  - Explain power of matrix.

**PART – B**  
(Answer all five units, 5 X 10 = 50 Marks)**UNIT – I**

- 2 (a) Explain the different phases in Tester's Mental life.  
(b) What are the applications of Path Testing? Explain.
- OR**
- 3 (a) What are the factors that determine the importance of a Bug? Explain.  
(b) Define Testing Blindness? Explain the three types of Testing Blindness.

**UNIT – II**

- 4 (a) What are the different types of complications in Transaction flows? Explain.  
(b) Describe in detail about the Data Flow Anomaly State Graph.

**OR**

- 5 Define Transaction? With a suitable example, explain briefly about the transaction flows.

**UNIT – III**

- 6 (a) Discuss in detail about the Domain closure and Domain Dimensionality.  
(b) Explain in detail about Nice and ugly domain.

**OR**

- 7 (a) Define Domain Testing? Discuss various applications of domain testing.  
(b) State and explain with suitable examples various two dimensional domain bugs.

**UNIT – IV**

- 8 (a) Explain the application to find the minimum number of paths in a graph? Explain with example.  
(b) Discuss how the decision tables can be Basis for test case design.

**OR**

- 9 (a) Describe in detail about the Regular expression and flow anomaly detection  
(b) Explain briefly about the Knowledge Based Systems.

**UNIT – V**

- 10 (a) With a suitable example explain the State graphs.  
(b) Discuss in detail about the properties of Relations.

**OR**

- 11 (a) Explain in detail about the Good state graphs and bad state graphs.  
(b) Describe the basic principles of Graph Matrix.