

**III B.Tech I Semester Examinations, December 2011**

**SOFTWARE TESTING METHODOLOGIES**

**Common to Information Technology, Computer Science And Engineering**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks**

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1. (a) What are the advantages of matrix representations?  
(b) Write about loops in matrix representation. [8+8]
2. (a) Mention design guidelines for building finite state machines into your code.  
(b) Explain with example how to convert a specification into a state graph . And discuss how contradictions can come about. [8+8]
3. Differentiate Nice Domains and Ugly domains. [16]
4. (a) Explain process block, junction, 100% path coverage and Predicate.  
(b) How do you ensure 100% node coverage if every process link is covered at least once? [8+8]
5. Write the Boolean algebra rules. [16]
6. (a) Explain the steps for Reduction procedure.  
(b) Explain about path sums, distributive laws and absorption rules. [8+8]
7. (a) What are the different data object states in data-flow graphs.  
(b) List nine possible two-letter combinations of the object states of data flow anomalies. Classify them as buggy, suspicious and ok. [8+8]
8. (a) What are the Phases in a Tester's Attitudinal Progression?  
(b) Differentiate function Versus Structural Testing. [10+6]

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