

**Code No: 156CW****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, February/March - 2022****SOFTWARE TESTING METHODOLOGIES****(Common to CSE, IT)****Time: 3 hours****Max. Marks: 75**

**Answer any five questions**  
**All questions carry equal marks**

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- 1.a) Discuss about implementation and application of path testing.  
b) Describe instrumentation and sensitization in transaction flow testing. [8+7]
- 2.a) Explain about approximate number of paths with suitable example.  
b) Discuss in detail about state bugs. [8+7]
- 3.a) Describe software implementation of state graphs.  
b) Explain about partition algorithm with example. [8+7]
- 4.a) Briefly explain about consequences of bugs.  
b) Discuss about three and four variable KV charts with examples. [8+7]
- 5.a) What are dataflow anomalies? Explain about dataflow anomaly state graph.  
b) Write and explain testability tips of state testing. [8+7]
- 6.a) Distinguish the following: i) Modularity vs efficiency ii) Function vs structure  
b) Describe motivational overview of graph matrices. [8+7]
- 7.a) Explain basic concepts of path products and path expressions.  
b) Discuss about node-reduction algorithm. [7+8]
8. Explain the following:  
a) Testing one-dimensional domains  
b) Coding bugs  
c) Identity elements. [5+5+5]

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