

Code No: 156CW

**R18**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech III Year II Semester Examinations, August/September - 2021**

**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) State and explain various dichotomies in software testing.  
b) Explain the life cycle of Bug. [8+7]
- 2.a) What are control and sequence bugs? How can they be caught?  
b) Explain heuristics procedures for sensitizing paths. [7+8]
- 3.a) Compare data flow and path flow testing strategies.  
b) Explain transaction-flow graph implementation with example. [7+8]
- 4.a) What is program slicing? Explain Dynamic program slicing.  
b) Explain predicates of domain testing with examples. [8+7]
- 5.a) Write the role of path expression and path predicates in testing.  
b) Write the procedure to count the minimum number of paths in a graph. [7+8]
6. Demonstrate through truth tables the validity of the following theorems of Boolean algebra:  
a) Associative Laws  
b) De Morgan's theorems for three variables  
c) Distributive Law. [5+5+5]
- 7.a) Explain about good state and bad state graphs. How to handle bad state graphs.  
b) Write short notes on:  
i) Transition Bugs  
ii) Dead States. [7+8]
- 8.a) Explain the features of the Jmeter Testing environment.  
b) How to record tests and set checkpoints in win runners? Explain. [7+8]

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