Code No: 126ER

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech III Year II Semester Examinations, May - 2016
SOFTWARE TESTING METHODOLOGIES
(Common to CSE, IT)

Time: 3 hours **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

1.a)	Define testing and debugging.	[2]
b)	What are the elements of flow graph?	[3]
c)	What is Data-flow testing?	[2]
d)	Give an example of a transaction-flow.	[3]
e)	What is domain testing?	[2]
f)	Define linear vector space.	[3]
g)	What are distributive laws?	[2]
h)	Give examples of four variable KV-chart.	[3]
i)	Define state-transition table.	[2]
j)	What is partial ordering relation?	[3]

PART - B

(50 Marks)

2.a) Distinguish the following:
i) Function vs structure
ii) The builder vs Buyer
b) How should you go about quantifying the nightmare? Explain. [5+5]

OR

3.a) Is complete testing possible? Explain.
b) What are the three kinds of loops? Explain with example. [5+5]

4.a) Describe the complications of transaction flows.
b) What are data-flow anomalies? Explain. [5+5]

OR

5.a) Define transaction flow testing. Explain transaction flow structure.
b) Explain about the data-flow model with example. [5+5]

6.a) What are the restrictions of domain testing? Explain.
b) How to test two-dimensional domains? Explain. [5+5]

OR

7.a) What is the strategy of domain testing? Explain in brief.
b) Discuss about domains and testability. [5+5]

8.a) Explain about the mean processing time of a routine with example.

b) Justify the following statement:
"Decision tables can also be used to examine a program's structure". [5+5]

OR

9.a) Explain Push/Pop arithmetic with example.

b) What are the rules of Boolean algebra? Explain. [5+5]

10. Explain the following:
a) Impact of bugs in state testing
b) Number of states in a state graph.
c) Properties of relations. [3+4+3]

OR

11. Explain the following:
a) Software implementation of state graphs.
b) Applications of graph matrices. [5+5]

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