R13

Code No: 126ER

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year II Semester Examinations, April - 2018
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)	What is meant by testing? Why we need it	[2]
b)	Define a model for software testing.	[3]
c)	Explain various loops. Give example for each.	[2]
d)	Write the applications of data flow testing.	[3]
e)	In what a nice domain differs from and ugly domains.	[2]
f)	Define domain testing with example.	[3]
g)	Explain Regular Expressions.	[2]
h)	Explain sum of product form and product of sum form.	[3]
i)	Define good state and bad state graphs.	[2]
j)	How can the graph be represented in Matrix form?	[3]

PART - B
(50 Marks)

2.	State and explain various dichotomies in software testing.	[10]
	OR	
3.a)	What is meant by program's control flow? How is it useful for path testing?	
b)	Discuss various flow graph elements with their notations.	[5+5]
4.a)	What is meant by transaction flow testing. Discuss its significance.	
b)	Compare data flow and path flow testing strategies.	[5+5]
	OR	
5.a)	Explain data-flow testing with an example. Explain its generalizations and Limitations	
b)	Explain the terms Dicing, Data-flow and Debugging.	[5+5]
6.a)	State and Explain various restrictions at domain testing processes.	
b)	With a neat diagram, explain the schematic representation of domain testing.	[5+5]
	OR	
7.	Discuss the domains and interface testing in detail.	[10]

8. Write Short Notes on following:
    a) Distributive Laws
    b) Absorption Rule
    c) Loops
    d) Identity elements.   [10]

OR

9. Reduce the following functions using K-Maps
    F(A,B,C,D) = P(4,5,6,7,8,12,13)+d(1,15)   [10]

10.a) Write testers comments about state graphs.
    b) Explain about good state and bad state graphs.   [5+5]

OR

11. What are graph matrices and their applications? Explain in detail.   [10]

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