



R20 Regulation

Subject code:3E7HF

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

(Autonomous, Accredited by NAAC with 'A+' Grade)

**B.Tech VII Semester Supplementary Examinations, November 2025**

**SOFTWARE TESTING METHODOLOGIES  
(CSE(DS))**

Maximum Marks: 70

Date: 03.12.2025

Duration: 3 hours

- Note: 1.This question paper contains two parts A and B.  
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.  
 3. Part B consists of 5 Units. Answer any one full question from each unit.  
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	What is meant by testing?	2M	1	L1
2	Define a model for software testing.	2M	1	L1
3	Explain about data flow anomaly graph with example.	2M	2	L1
4	Write the applications of data flow testing.	2M	2	L1
5	What is loop free software?	2M	3	L1
6	What is domain span?	2M	3	L1
7	Explain sum of product form and product of sum form.	2M	4	L1
8	Write the limitations of path testing.	2M	4	L1
9	What are testability tips?	2M	5	L1
10	Why test planning need it?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	What is meant by testing? Why we need it? List the goals of software testing?	10M	1	L2
OR				
12	What is meant by program's control flow? How is it useful for path testing?	10M	1	L2
13	Compare data flow and path flow testing strategies.	10M	2	L2
OR				
14	Discuss about complication in transaction - flow testing.	10M	2	L2
15	Explain predicates of domain testing with example.	10M	3	L2
OR				
16	Compare domain and interface testing.	10M	3	L2
17	Explain basic concepts of path products and path expressions.	10M	4	L2
OR				
18	Explain path expression with examples	10M	4	L2
19	What are graph matrices and their applications? Explain in detail.	10M	5	L2
OR				
20	Explain the different types of tools required for test planning in detail.	10M	5	L2