

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-GURUJADA VIZINAGARAM
III B. Tech I Semester Regular Examinations November -2025
SOFTWARE TESTING METHODOLOGIES
(CSE)

Time: 3 hours

Max. Marks: 70

The Question paper consists of Part A & Part B.

Part A is compulsory, Answer all questions. Part B Answers any one question from each unit.

1		PART-A	(20Marks)
	a)	Define predicate in path testing.	[2]
	b)	What is meant by path sensitization?	[2]
	c)	Define DU chain with an example.	[2]
	d)	What is transaction flow testing?	[2]
	e)	Define syntax testing.	[2]
	f)	What is the importance of anomaly detection in flow graphs?	[2]
	g)	List any two testability tips in software testing.	[2]
	h)	Differentiate good and bad state graphs with an example.	[2]
	i)	Name any four automation testing tools along with its features.	[2]
	j)	Define checkpoints and its importance.	[2]
		PART-B	(50Marks)
		Question from Unit - I	
2	a)	Describe the steps involved in the construction of flow graph.	[5]
	b)	Construct a flow graph for binary search procedure and estimate the number of paths in the graph.	[5]
		(OR)	
3	a)	Explain the consequences of bugs with suitable examples.	[5]
	b)	Explain the dichotomies in software testing.	[5]
		Question from Unit - II	
4	a)	Discuss the transaction flow testing strategies in detail.	[5]
	b)	Explain the term: Domains and testability.	[5]
		(OR)	
5	a)	Write the importance of interface testing in domain testing.	[5]
	b)	Discuss the application of dataflow testing sorting usecase.	[5]
		Question from Unit - III	
6	a)	Explain the role of grammar in syntax testing.	[5]
	b)	Draw an example decision table for different interest rates for loaning application.	[5]
		(OR)	
7	a)	Explain the reduction procedure for path expressions.	[5]
	b)	What are KV charts? Give an example.	[5]
		Question from Unit - IV	
8	a)	Write short notes on state transition testing.	[5]
	b)	Generate test cases for finding biggest of three numbers using state transition testing.	[5]
		(OR)	
9	a)	Write short notes on node reduction algorithm.	[5]
	b)	Define graph matrix with an example.	[5]
		Question from Unit - V	
10	a)	Explain in detail the concepts of test automation.	[5]
	b)	Enumerate the features of selenium in automating the testing process.	[5]
		(OR)	
11	a)	Explain recording and enhancing tests in WinRunner.	[5]
	b)	Write short notes on GUI mapping in WinRunner.	[5]