

Code: 20CS4701B

IV B.Tech - I Semester – Regular Examinations - DECEMBER 2023**SOFTWARE TESTING METHODOLOGIES
(COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	List the goals of software testing and discuss about Myths related software testing and its facts.	L2	CO2	4 M
	b)	What are the various activities performed by a tester in project development?	L2	CO1	10 M
OR					
2	a)	How do you expand immaterial test cases in decision table testing? Illustrate with an example.	L3	CO1	4 M
	b)	How do you calculate the cyclomatic complexity number of the program having many connected components? Illustrate with an example.	L3	CO2	10 M

UNIT-II					
3	a)	Nested loops are problematic areas for testers. Discuss about it.	L2	CO1	7 M
	b)	What is program slicing? Explain Dynamic program slicing.	L2	CO5	7 M
OR					
4	a)	What is meant by program's control flow? How is it useful for path testing?	L4	CO3	7 M
	b)	How do you calculate the number of decision nodes for switch-case? Illustrate with an example.	L4	CO3	7 M
UNIT-III					
5	Draw the Use-case diagram for Online EAMCET Counseling management System and write the test cases.		L3	CO3	14 M
OR					
6	Write the requirements for Online Certification Course management System and generate the test cases.		L3	CO3	14 M
UNIT-IV					
7	a)	Describe about Risk analysis table.	L2	CO1	7 M
	b)	What is the need for minimizing test cases in a project? Illustrate with an example	L3	CO4	7 M
OR					
8	a)	Illustrate the following with an example: i) Total statement coverage prioritization ii) Total branch coverage prioritization	L2	CO4	10 M

	b)	How to Select test cases for regression testing?	L3	CO5	4 M
UNIT-V					
9	a)	What is Automated Test data generation?	L2	CO5	7 M
	b)	Explain about any two test data generation tools.	L2	CO5	7 M
OR					
10	a)	How genetic algorithm are useful in software testing explain.	L4	CO5	7 M
	b)	List and explain various guidelines Automated testing.	L2	CO5	7 M