



CBCS SCHEME

22MCA344

Third Semester MCA Degree Examination, June / July 2026 Software Testing

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
Q.1	a.	Illustrate Error, fault, failure, Incident, Test, Test case with Test Life Cycle.	08	L2	CO1
	b.	With the insights from a user in Software Testing , explain the program behaviors, requirements and correctness.	06	L2	CO1
	c.	Differentiate between Testing and Debugging.	06	L2	CO1
OR					
Q.2	a.	Briefly explain the Software Quality attributes of Software Testing.	08	L2	CO1
	b.	Outline the role of Test metrics and various types of test metrics in Software Testing.	06	L2	CO1
	c.	Explain the basic principles of Software Testing.	06	L2	CO1
Module – 2					
Q.3	a.	With the insights from a Venn Diagram, explain the program behaviors.	06	L2	CO1
	b.	List out and explain Error and Fault Taxonomies.	08	L2	CO1
	c.	Write the problem statement and implementation algorithm for Triangle Problem.	06	L3	CO1
OR					
Q.4	a.	Illustrate the computation and decision making with the help of the commission problem.	10	L2	CO1
	b.	Interpret the issues of Integration and System testing with the example of SATM System.	10	L2	CO2
Module – 3					
Q.5	a.	Briefly explain BVA for two (2) variables with graph and limitations of BVA.	10	L2	CO2
	b.	Describe the BVA – best case, worst case, robust case, robust worst case with graph.	10	L2	CO2
1 of 2					

OR

Q.6	a.	Outline ECT-(Equivalence Class Testing) Weak Robust ECT and Strong Robust ECT - (Equivalence Class Testing).	10	L2	CO2
	b.	Interpret and compare the complex logical relationships with Decision Table.	10	L2	CO2

Module – 4

Q.7	a.	What are DD – Paths? Explain DD path graph for the triangle problem.	10	L2	CO3
	b.	Explain the Test Coverage Metrics and outline metric-based Testing.	10	L2	CO3

OR

Q.8	a.	Apply and Infer McCabe's basis path metric for the below graph.	10	L3	CO3
		Fig. Q. 8 (a)			
	b.	Explain DU – path testing and illustrate DD – path graph of the commission program.	10	L2	CO3

Module – 5

Q.9	a.	Compare and Contrast Mutation Analysis and Fault Based Testing.	10	L2	CO3
	b.	Distinguish the terms scaffolding and Test oracles with examples.	10	L2	CO3

OR

Q.10	a.	Outline the concept of fault based – adequacy criteria in testing.	08	L2	CO3
	b.	Explain the Test and Analysis Strategies implementation of software Testing.	08	L2	CO3
	c.	Discuss Capture and Relay with example.	04	L2	CO3
