Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 17 – 12- 2025 **Time:** 01:00pm – 04:00pm

School: SOCSE	**Program:** B. Tech (Devops)	
Course Code: CDV2503	**Course Name:** Software Testing	
Semester: V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**24**	**24**	**26**	**26**	**-**

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10Q x 2M=20M**

1.	What is alpha and beta testing?	**2 Marks**	**L1**	**CO1**
2.	What is regression testing?	**2 Marks**	**L1**	**CO1**
3.	What is statement testing?	**2 Marks**	**L1**	**CO2**
4.	Define white box testing.	**2 Marks**	**L1**	**CO2**
5.	List out the selenium components.	**2 Marks**	**L1**	**CO3**
6.	What is script writing in testing?	**2 Marks**	**L1**	**CO3**
7.	Define continuous testing in CI/CD.	**2 Marks**	**L1**	**CO3**
8.	What is model-based testing?	**2 Marks**	**L1**	**CO4**
9.	List the key objectives of AI-Driven testing tools.	**2 Marks**	**L1**	**CO4**
10.	List out various types of security testing Tools.	**2 Marks**	**L1**	**CO4**

Part B

Answer the Questions. **Total Marks 80M**

11.	**a.**	Explain various phases of spiral model with its advantages and disadvantages.	**10 Marks**	**L2**	**CO1**
	b.	Explain acceptance testing along with scenarios for Flipkart application.	**10 Marks**	**L2**	**CO1**
		Or			
12.	**a.**	Explain various phases of incremental model with its advantages and disadvantages.	**10 Marks**	**L2**	**CO1**
	b.	Explain regression testing with example scenario for Flipkart application.	**10 Marks**	**L2**	**CO1**

13.	**a.**	Illustrate test reporting in detail.	**10 Marks**	**L2**	**CO2**
	b.	Online food delivery app your team has completed system testing of an online food delivery app. You found: • 20 test cases executed → 15 passed, 5 failed • Critical defect in "Payment Gateway" • Minor defect in "Order Tracking" • Average test execution time per case: 3 minutes Prepare a Test Report for this cycle, highlighting test execution summary, defect details, risks, and recommendations for release.	**10 Marks**	**L2**	**CO2**
		Or			
14.	**a.**	Illustrate Boundary Value Analysis in detail. Mention its pros and cons.	**10 Marks**	**L2**	**CO2**
	b.	A movie ticket booking system allows users to book between 1 and 10 tickets per transaction. Apply Boundary Value Analysis to create test cases that verify the ticket booking limits.	**10 Marks**	**L2**	**CO2**

15.	**a.**	Discuss the benefits, types, and basic elements of a Traceability Matrix in software testing. Explain, with a step-by-step approach, how to create an effective Traceability Matrix.	**10 Marks**	**L2**	**CO3**
	b.	Explain the concepts of automation testing in software development. Discuss popular automation testing tools briefly and list the advantages and disadvantages of using automation testing.	**10 Marks**	**L2**	**CO3**
		Or			
16.	**a.**	Explain Selenium as an automation testing tool. Discuss the key components of Selenium and list its features, applications, and limitations in software testing.	**10 Marks**	**L2**	**CO3**

	b.	Explain JUnit/NUnit as unit testing frameworks. Discuss the basic concepts of JUnit and list its advantages and disadvantages in software testing.	**10 Marks**	**L2**	**CO3**

17.	**a.**	Explain the concept and principles of security testing in detail. Discuss the various types and commonly used tools for security testing. Analyze the advantages and disadvantages of implementing security testing in software applications.	**10 Marks**	**L2**	**CO4**
	b.	Illustrate the different types of mutation testing used in software testing. Analyze its advantages and disadvantages in ensuring software quality.	**10 Marks**	**L2**	**CO4**
		Or			
18.	**a.**	Define test data generation and explain its importance in software testing. Briefly discuss the various techniques used for generating test data.	**10 Marks**	**L2**	**CO4**
	b.	Explain the significance of Model-Based Testing (MBT) in software quality assurance. Discuss the various types of Model-Based Testing and analyze its advantages and disadvantages in practical software testing scenarios.	**10 Marks**	**L2**	**CO4**