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# PRESIDENCY UNIVERSITY

BENGALURU

## Mid - Term Examinations - March 2026

Date: 13- 03-2026

Time: 11.45am to 01.15pm

<b>School:</b> SOCSE	<b>Program:</b> CDV		
<b>Course Code:</b> CDV2508	<b>Course Name:</b> Continuous Integration Continuous delivery CI/CD Pipeline		
<b>Semester:</b> VI	<b>Max Marks:</b> 50	<b>Weightage:</b> 25%	

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	21	24			

### 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.

5Q x 2M=10M

1	Mention any two features of Jenkins.	2 Marks	L1	CO2
2	Difference between microservice architecture and monolithic architecture	2 Marks	L1	CO1
3	Define "coding" stage from the lifecycle of CI/CD Pipeline.	2 Marks	L1	CO1
4	What are GitHub Actions?	2 Marks	L1	CO2
5	What is a webhook?	2 Marks	L1	CO2

## Part B

Answer the Questions.

Total Marks 40M

6.	a.	Describe the Pipeline as Code CI/CD Pipeline Architecture pattern with a neat diagram. Describe its working mechanism, components, advantages, and limitations.	10 Marks	L2	C01
	b.	Explain how the second stage of a CI/CD pipeline (continuous delivery) is executed, detailing its activities, tools used, and its role in ensuring code quality before deployment.	10 Marks	L2	C01
<b>Or</b>					
7.	a.	Explain the advantages and disadvantages of monolithic CI/CD Pipeline Architecture Pattern.	10 Marks	L2	C01
	b.	Interpret the stages of a CI/CD pipeline with suitable examples. Draw a neat diagram.	10 Marks	L2	C01

8.	a.	Apply the architecture and working of Jenkins as a CI/CD tool. Describe how Jenkins integrates with Git repositories to automate build, test, and deployment pipelines.	10 Marks	L3	C02
	b.	Relate GitLab CI, and GitHub Actions in terms of architecture, pipeline configuration, scalability, and ease of integration with version control systems.	10 Marks	L3	C02
<b>Or</b>					
9.	a.	Demonstrate how webhooks and triggers are used to automate CI/CD pipeline execution after a code commit.	10 Marks	L3	C02
	b.	A development team wants automated builds and deployments on every code commit. Demonstrate how Jenkins and GitHub Actions can be implemented to achieve this.	10 Marks	L3	C02