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PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations - MARCH 2026

Date: 10 - 03- 2026

Time: 02:00pm - 03:30pm

School: SOIS-PG	Program: MCA		
Course Code : CSA4015	Course Name: DevOps and Microservices		
Semester: IV	Max Marks:50	Weightage:25%	

CO - Levels	C01	C02	C03	C04	C05
Marks	26	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	Define Microservices and list its advantages.	2 Marks	L2	C01
2	State the process of CI/CD pipeline.	2 Marks	L2	C01
3	List any 3 Source Code Management tools.	2 Marks	L1	C01
4	What is an Ansible Inventory file?	2 Marks	L 1	C02
5	Write about Ansible agentless architecture.	2 Marks	L2	C02

Part B

Answer the Questions.

Total Marks 40M

6.	a.	Explain the Jenkins Distributed Architecture with a neat diagram and discuss the procedure to add worker nodes to control nodes.	10 Marks	L2	CO1
	b.	Demonstrate step by step process of Jenkins integration with other DevOps tools such as Git, Maven, and Ansible with example.	10 Marks	L3	CO1
Or					
7.	a.	Differentiate Microservice and Monolithic architecture and discuss the advantages of Microservice.	10 Marks	L2	CO1
	b.	Develop a CI/CD declarative pipeline using different directives and stages with an example.	10 Marks	L3	CO1

8.	a.	Explain the Ansible Architecture and its Workflow with a neat diagram.	10 Marks	L2	CO2
	b.	Demonstrate any five Ansible ad-hoc commands with suitable examples.	10 Marks	L3	CO2
Or					
9.	a.	Explain Ansible Modules such as apt, yum, copy, file, and command.	10 Marks	L2	CO2
	b.	Build a sample Ansible Galaxy for role-based automation.	10 Marks	L3	CO2