PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 28-10-2025   **Time:** 11.00am to 12.30pm

School: SOCSE/SOE	**Program:** B.Tech. Computer Science and Technology (DevOps)
Course Code : CDV3403	**Course Name:** Infrastructure as Code with Terraform and Ansible
Semester: VII	**Max Marks**:50 ⎪ **Weightage**: 25%

CO - Levels	CO1	CO2	CO3	CO4	CO5
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 Infrastructure as Code (IaC).	**2 Marks**	**L1**	**CO1**
2	What is configuration drift and why is it a problem?	**2 Marks**	**L1**	**CO1**
3	Differentiate between a masterless and a master-agent architecture in configuration management	**2 Marks**	**L1**	**CO1**
4	What is the function of a Terraform provider?	**2 Marks**	**L1**	**CO2**
5	Define Terraform state and mention its default filename.	**2 Marks**	**L1**	**CO2**

Part B

Answer the Questions.   **Total Marks 40M**

6.	a.	Explain the five broad categories of IaC tools	10 Marks	L2	CO1
		Or			
7.	a.	Discuss any five benefits in detail of adopting Infrastructure as Code.	10 Marks	L2	CO1

8.	a.	Compare and contrast the Declarative and Procedural approaches to IaC.	10 Marks	L2	CO1
		Or			
9.	a.	Explain the difference between Mutable and Immutable infrastructure paradigms.	10 Marks	L2	CO1

10.	a.	Explain the core concepts of Terraform basics	10 Marks	L2	CO2
		Or			
11.	a.	Discuss state management in Terraform.	10 Marks	L2	CO2

12.	a.	Explain Terraform Workspaces purpose and provide a use case where workspaces are beneficial for managing different environments.	10 Marks	L2	CO2
		Or			
13.	a.	Explain Terraform Provisioners role in the resource lifecycle and describe the difference between local-exec and remote-exec provisioners with an example.	10 Marks	L2	CO2