



PRESIDENCY UNIVERSITY

BENGALURU

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End - Term Examinations – May/June 2026

Date: 14 – 05- 2026

Time: 01:00pm – 04:00pm

School: SOCSE	Program: B.Tech.Computer Science and Technology (DevOps)	
Course Code : CDV2510	Course Name: Edge Computing and DevOps	
Semester: VI	Max Marks:100	Weightage: 50%

CO - Levels	C01	C02	C03	C04	C05
Marks	26	24	12	14	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.

10Q x 2M=20M

1.	Explain the need for edge computing in real-time applications.	2 Marks	L2	C01
2.	Describe the function of edge nodes in processing data.	2 Marks	L2	C01
3.	Summarize the characteristics of edge computing systems.	2 Marks	L2	C01
4.	Explain Continuous Deployment in DevOps.	2 Marks	L2	C02
5.	Describe how monitoring improves system reliability.	2 Marks	L2	C02
6.	Explain the limitations of traditional CI/CD pipelines in edge environments.	2 Marks	L2	C03
7.	Describe the advantages of lightweight orchestration tools.	2 Marks	L2	C04
8.	Explain how OTA updates help manage edge devices.	2 Marks	L2	C04
9.	Explain edge computing in autonomous vehicles.	2 Marks	L2	C05
10.	Describe one EdgeOps platform and its role.	2 Marks	L2	C05

Part B

Answer the Questions.

Total Marks 80M

11.	a.	Explain how edge computing can be used in a smart traffic management system.	10 Marks	L2	C01
	b.	Describe the components of edge computing architecture and their roles.	10 Marks	L2	C01
Or					
12.	a.	Explain how edge computing improves data processing in IoT systems.	10 Marks	L2	C01
	b.	Describe the benefits and limitations of edge computing in real-world applications.	10 Marks	L2	C01

13.	a.	Apply CI/CD pipeline stages in a DevOps workflow with an example.	10 Marks	L3	C02
	b.	Demonstrate the use of Continuous Integration, Continuous Delivery, and Continuous Deployment in a software project.	10 Marks	L3	C02
Or					
14.	a.	Apply containerization concepts using Docker for application deployment.	10 Marks	L3	C02
	b.	Demonstrate the use of orchestration tools to manage containerized applications	10 Marks	L3	C02

15.	a.	Apply CI/CD pipeline adaptations required for edge environments.	10 Marks	L3	C03
	b.	Apply edge AI/ML model deployment process on edge devices.	10 Marks	L3	C03
Or					
16.	a.	Illustrate how applications can be deployed across distributed edge locations.	10 Marks	L3	C04
	b.	Use GitOps principles to manage deployments in large-scale edge systems.	10 Marks	L3	C04

17.	a.	Investigate how edge computing supports smart city applications with a suitable example.	10 Marks	L4	C05
	b.	Analyze the role of edge computing in healthcare systems.	10 Marks	L4	C05
Or					
18.	a.	Analyze the use of edge computing in AR/VR applications for real-time interaction.	10 Marks	L4	C05
	b.	Analyze future trends of edge computing in next-generation networks.	10 Marks	L4	C05