Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 08-12- 2025 **Time:** 01:00pm – 04:00pm

School: SOCSE	**Program:** B.Tech	
Course Code: CSD2004	**Course Name:** Cloud Computing For Data Science	
Semester: V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	14	14	36	36	

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 compliance in cloud computing? Give examples	**2 Marks**	**L1**	**CO1**
2.	What is AWS? Name three core AWS services.	**2 Marks**	**L1**	**CO1**
3.	List any two cloud optimization techniques.	**2 Marks**	**L1**	**CO2**
4.	Define Data Migration and Data Ingestion.	**2 Marks**	**L1**	**CO2**
5.	What is Model Drift?	**2 Marks**	**L1**	**CO3**
6.	Define Containerization.	**2 Marks**	**L1**	**CO3**
7.	Give differences between Data Pipeline and Machine Learning Pipeline.	**2 Marks**	**L1**	**CO3**
8.	What is Time Series Analysis? Why do organizations use Time Series Analysis?	**2 Marks**	**L1**	**CO4**
9.	Define Serverless Computing. When to use serverless computing?	**2 Marks**	**L1**	**CO4**
10.	List the features of AWS Lamda.	**2 Marks**	**L1**	**CO4**

Part B

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

11.	**a.**	Explain in detail cloud deployment models and cloud service models in brief.	**10Marks**	**L2**	**CO1**
	b.	Describe the steps involved in building an ETL pipeline using AWS Glue.	**10Marks**	**L2**	**CO2**
		Or			
12.	**a.**	Compare Amazon Web Services, Google Cloud Platform and Microsoft Azure Cloud Providers in terms of prices, advantage, disadvantages with the help of use cases.	**10 Marks**	**L2**	**CO1**
	b.	Discuss various storage classes in cloud storage and their use cases.	**10Marks**	**L2**	**CO2**

13.	**a.**	Demonstrate the architecture and workflow of AWS SageMaker with a neat diagram	**10 Marks**	**L3**	**CO3**
	b.	Compare AWS SageMaker, Azure ML, and Google Vertex AI in terms of features, pricing, and integration.	**10 Marks**	**L2**	**CO3**
		Or			
14.	**a.**	Demonstrate the MLOps lifecycle and how it enhances ML workflow automation.	**10 Marks**	**L3**	**CO3**
	b.	Explain how Jupyter Notebook can be integrated with AWS SageMaker or Azure ML.	**10 Marks**	**L2**	**CO3**

15.	**a.**	Illustrate the architecture and working of AWS Lambda with a neat diagram	**10 Marks**	**L3**	**CO4**
	b.	Discuss the benefits and challenges of adopting serverless architectures in cloud applications.	1**0 Marks**	**L2**	**CO4**
		Or			
16.	**a.**	Illustrate how Azure Functions handle event-driven computing.	**10 Marks**	**L3**	**CO4**
	b.	Explain the concept of Generative AI and how it differs from traditional AI models.	**10 Marks**	**L2**	**CO4**

17.	**a.**	Explain the different stages of an End-to-End ML Pipeline with a diagram.	**10 Marks**	**L2**	**CO3**
	b.	Explain the components and techniques of a time series analysis with suitable examples.	**10 Marks**	**L2**	**CO4**
		Or			
18.	**a.**	Discuss how data ingestion, preprocessing, training, validation, and deployment are managed in cloud ML pipelines	**10 Marks**	**L2**	**CO3**
	b.	Explain how machine learning techniques can be applied for time series forecasting in the cloud.	**10 Marks**	**L2**	**CO4**