



PRESIDENCY UNIVERSITY

BENGALURU

Roll No.													
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End - Term Examinations – May/June 2026

Date: 18-05-2026

Time: 01:00pm – 04:00pm

School: SOCSE	Program: B.Tech.(CSD/CDV)	
Course Code : CSD1705	Course Name: Cloud Computing for Data Science	
Semester: VI	Max Marks: 100	Weightage: 50%

CO - Levels	C01	C02	C03	C04	C05
Marks	20	20	20	20	20

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.	List any two characteristics of cloud computing.	2 Marks	L2	C01
2.	Differentiate between CapEx and OpEx.	2 Marks	L2	C01
3.	What is PaaS?	2 Marks	L2	C01
4.	Define multi-tenancy.	2 Marks	L2	C01
5.	List types of cloud deployment models.	2 Marks	L2	C01
6.	What is cost optimization in cloud computing?	2 Marks	L2	C02
7.	Define data pipeline.	2 Marks	L2	C02
8.	Difference between ETL and ELT (any one point).	2 Marks	L2	C02
9.	Name any two cloud ETL tools.	2 Marks	L2	C02
10.	What is AWS Glue?	2 Marks	L2	C02

Part B

Answer the Questions.

Total Marks 80M

11.	a.	A startup is currently using on-premises infrastructure and facing high costs and delays. Explain how cloud computing can solve these issues by mapping old vs new models.	10 Marks	L2	CO1
Or					
12.	a.	A bank requires high security, while a startup needs scalability and low cost. Suggest suitable deployment models and explain your choice.	10 Marks	L2	CO1
13.	a.	A cloud-based analytics system requires real-time processing of user activity. Compare ETL vs ELT and recommend a suitable approach.	10 Marks	L3	CO2
Or					
14.	a.	Design a data pipeline for a food delivery app (like Swiggy) explaining each stage from data source to analytics.	10 Marks	L3	CO2
15.	a.	A business wants to reduce manual effort in model selection and tuning. Explain how AutoML can help and discuss its workflow.	10 Marks	L3	CO3
Or					
16.	a.	A recommendation system must respond instantly to user actions. Explain how real-time inference is implemented in cloud environments.	10 Marks	L3	CO3
17.	a.	A dataset contains missing values, categorical data, and noise. Explain how preprocessing and feature engineering improve model performance.	10 Marks	L3	CO3
Or					
18.	a.	A startup wants to implement machine learning without investing in infrastructure. Explain how cloud platforms enable ML adoption.	10 Marks	L3	CO3
19.	a.	A startup is building a real-time image processing application using serverless computing (AWS Lambda). Analyze how an event-driven architecture can be designed for this system and evaluate its advantages and limitations compared to traditional server-based deployment.	20 Marks	L3	CO4
Or					
20.	a.	A business wants to integrate Generative AI services (LLMs) into its customer support system.	20 Marks	L3	CO4

		Analyze how cloud-based GenAI services can be used to build this solution and evaluate challenges such as latency, cost, and data privacy.			
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21.	a.	An IoT-based healthcare monitoring system continuously collects patient data. Design a cloud-IoT integration architecture and analyze how data flow, storage, and processing can be optimized for reliability and security.	20 Marks	L4	C05
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Or

22.	a.	A smart city application requires processing data from sensors with minimal delay. Compare edge computing and cloud computing architectures, and analyze which approach is more suitable under different conditions.	20 Marks	L4	C05
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