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# PRESIDENCY UNIVERSITY

BENGALURU

## Mid - Term Examinations - MARCH 2026

Date: 10 - 03- 2026

Time: 02:00pm - 03:30pm

<b>School:</b> SOCSE	<b>Program:</b> B. Tech. (CSD/CDV)		
<b>Course Code:</b> CSD1705	<b>Course Name:</b> Cloud computing for data science		
<b>Semester:</b> VI	<b>Max Marks:</b> 50	<b>Weightage:</b> 25%	

CO - Levels	C01	C02	C03	C04	C05
Marks	24	26	0	0	0

### 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	List any two major components of cloud architecture.	2 Marks	L1	C01
2	Distinguish between IaaS and SaaS with one example each.	2 Marks	L1	C01
3	List two examples of cloud object storage services.	2 Marks	L1	C02
4	Distinguish between a Data Lake and a Data Warehouse in one point.	2 Marks	L1	C02
5	Outline two methods of data ingestion used in cloud systems.	2 Marks	L2	C02

### Part B

Answer the Questions.

Total Marks 40M

6.	a.	Illustrate the layered architecture of cloud computing with a neat diagram. Explain the role of each layer.	10 Marks	L2	C01
Or					

<b>7.</b>	<b>a.</b>	Provide an overview of major cloud platforms – AWS, Microsoft Azure, and Google Cloud. Compare their key services and features.	<b>10 Marks</b>	<b>L2</b>	<b>CO1</b>
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<b>8.</b>	<b>a.</b>	Discuss the different cloud deployment models – Public, Private, Hybrid, and Community Cloud. Mention advantages, disadvantages, and use cases.	<b>10 Marks</b>	<b>L1</b>	<b>CO1</b>
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**Or**

<b>9.</b>	<b>a.</b>	Explain containerization and Docker fundamentals. Differentiate between Virtual Machines and Containers with advantages.	<b>10 Marks</b>	<b>L2</b>	<b>CO1</b>
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<b>10.</b>	<b>a.</b>	Discuss the advantages and limitations of Data Lakes and Data Warehouses in modern cloud analytics systems.	<b>10 Marks</b>	<b>L1</b>	<b>CO2</b>
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**Or**

<b>11.</b>	<b>a.</b>	Explain data migration and ingestion strategies in cloud computing. Compare batch ingestion and streaming ingestion with examples.	<b>10 Marks</b>	<b>L2</b>	<b>CO2</b>
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<b>12.</b>	<b>a.</b>	Summarize distributed computing frameworks Hadoop and Spark. Explain how they are deployed and used in cloud platforms for big data analytics.	<b>10 Marks</b>	<b>L2</b>	<b>CO2</b>
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**Or**

<b>13.</b>	<b>a.</b>	Explain the importance of cloud cost management. How do organizations optimize storage and compute expenses in cloud environments?	<b>10 Marks</b>	<b>L2</b>	<b>CO2</b>
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