Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 10- 12- 2025 **Time:** 1.00pm to 04.00pm

School : SOCSE	**Program :** B. Tech CAI & ISE	
Course Code : CSE2272	**Course Name :** Cloud Computing	
Semester : V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**26**	**24**	**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. **10Q x 2M=20M**

1.	List some of the challenges in cloud computing.	**2 Marks**	**L2**	**CO1**
2.	Name the essential characteristics of Cloud Computing	**2 Marks**	**L2**	**CO1**
3.	Define a Cluster Computing .	**2 Marks**	**L2**	**CO1**
4.	Define Virtual Machine Monitor.	**2 Marks**	**L2**	**CO2**
5.	How the Execution Environment is classified ?	**2 Marks**	**L3**	**CO2**
6.	Mention the purpose of audit monitor in cloud computing.	**2 Marks**	**L2**	**CO3**
7.	What is the function of SLA monitor?	**2 Marks**	**L2**	**CO3**
8.	Define cloud security mechanisms.	**2 Marks**	**L2**	**CO3**
9.	Mention the steps involved in MapReduce.	**2 Marks**	**L2**	**CO4**
10.	What is zero trust security model ?	**2 Marks**	**L2**	**CO4**

Part B

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

11.	**a.**	List and explain the types of cloud computing services and Identify two cloud service providers under each type.	**10 Marks**	**L2**	**CO1**
	b.	Identify and explain the key core technologies that form the foundation of cloud computing.	**10 Marks**	**L2**	**CO1**
		Or			
12.	**a.**	Outline the similarities and differences between Cluster computing, Grid computing and Cloud Computing.	**10 Marks**	**L2**	**CO1**
	b.	Explain in detail about the characteristics of cloud and various deployment models in cloud.	**10 Marks**	**L2**	**CO1**

13.	**a.**	Virtualization is a method of logically dividing the system resources between different applications, Discuss the major components of the same with a neat diagram and explain its characteristics**.**	**10 Marks**	**L3**	**CO2**
	b.	Nitin plans to virtualize his company resources based on different levels of virtualization. Help him by explaining the virtualization at different level with neat sketch.	**10 Marks**	**L3**	**CO2**
		Or			
14.	**a.**	Virtualization simplifies the use of resources, isolates users from one another, supports replication and mobility, but exacts a price in terms of performance and cost. Analyse each one of these aspects for: (i) server virtualization, (ii) Storage virtualization, (iii) hardware virtualization (iii) Network virtualization (iv) Application virtualization for communication channel.	**10 Marks**	**L3**	**CO2**
	b.	Illustrate and explain the machine reference model with ISA security class and Privileged Hierarchy : Security Ring	**10 Marks**	**L3**	**CO2**

15.	**a.**	Identify the mechanism used to collect data for networks and IT resources in support (or dictated by) regulatory and contractual obligations. Explain all the steps with a neat diagram.	**10 Marks**	**L3**	**CO3**
	b.	Elaborate with a neat diagram an alternative has been used to implement pay-per-use monitor as a monitor agent.	**10 Marks**	**L3**	**CO3**
		Or			
16.	**a.**	Identify which mechanism is a lightweight and autonomous software program responsible for collecting and processing IT resource usage and explain three common agent-based implementation formats.	**10 Marks**	**L3**	**CO3**

	b.	How does an audit monitor help organizations maintain compliance and security in the cloud?	**10 Marks**	**L3**	**CO3**

17.	**a.**	Mention the steps involved in CGL- MapReduce with diagram.	**10 Marks**	**L2**	**CO4**
	b.	What are some cloud-native services and features that leverage Docker containers for deployment and orchestration?	**10 Marks**	**L2**	**CO4**
		Or			
18.	**a.**	How SaaS is Different from Traditional Software, Explain in detail with its benefits.	**10 Marks**	**L2**	**CO4**
	b.	How does Docker simplify the process of packaging, distributing, and deploying software applications?	**10 Marks**	**L2**	**CO4**