

Code: 23AM4501B, 23DS4501B

III B.Tech - I Semester - Regular Examinations - NOVEMBER 2025**CLOUD COMPUTING**
(Common for AIML & DS)**Duration: 3 hours****Max. Marks: 70**

Note: 1. This question paper contains two Parts A and B.
 2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.
 3. Part-B contains 5 essay questions with an internal choice from each unit. Each Question carries 10 marks.
 4. All parts of Question paper must be answered in one place.

BL – Blooms Level

CO – Course Outcome

PART – A

		BL	CO
1.a)	Define the key characteristics of cloud computing.	L2	CO1
1.b)	Explain the advantages of virtualization in cloud environments.	L2	CO1
1.c)	List the major differences between IaaS, PaaS and SaaS.	L2	CO1
1.d)	List out cloud deployment models.	L2	CO1
1.e)	Differentiate SISD, SIMD, MISD and MIMD architectures.	L2	CO1
1.f)	Explain the significance of distributed memory systems in parallel computing.	L2	CO1
1.g)	Describe the concept of Inter-Cloud resource allocation.	L2	CO1
1.h)	Write the challenges of security in hybrid cloud environments.	L2	CO1

1.i)	Explain the core architectural features of Google App Engine.	L2	CO1
1.j)	List out the services provided by AWS.	L2	CO1

PART – B

			BL	CO	Max. Marks
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UNIT-I

2	a)	Explain the characteristics and benefits of cloud computing.	L2	CO1	5 M
	b)	Explain how virtualization techniques improve performance and computing capacity.	L2	CO1	5 M

OR

3	a)	Discuss the role of virtualization in greening initiatives, Increased performance and computing capacity, lack of space, rise of administrative costs, underutilized hardware and software resources.	L2	CO1	5 M
	b)	Explain how to apply virtualization techniques to achieve portability and managed execution.	L3	CO2	5 M

UNIT-II

4	a)	Discuss the components of the cloud reference model.	L2	CO1	5 M
	b)	Explain tiered pricing, per unit pricing and subscription-based pricing models.	L2	CO1	5 M

OR

5	a)	Compare the characteristics of public and hybrid clouds.	L2	CO1	5 M
	b)	Write the steps to apply cloud interoperability standards, scalability and fault tolerance in cross-platform applications.	L2	CO1	5 M

UNIT-III

6	a)	Explain the approaches to parallel programming with examples.	L2	CO1	5 M
	b)	Analyze the levels of parallelism in computing.	L4	CO4	5 M

OR

7	a)	Apply message-based communication models in distributed computing.	L3	CO2	5 M
	b)	Describe how to apply service-oriented architecture in developing cloud-based web services.	L3	CO2	5 M

UNIT-IV

8	a)	Apply the components of an energy-efficient green cloud architecture.	L3	CO3	5 M
	b)	Analyze the importance of cloud federation stack in federated clouds.	L4	CO4	5 M

OR

9	a)	Apply the CIA triad and its relevance in cloud security.	L3	CO3	5 M
	b)	Explain cloud security architecture.	L2	CO1	5 M

UNIT-V

10	a)	Analyze the compute and storage services provided by AWS.	L4	CO4	5 M
	b)	Analyze the application lifecycle in Google App Engine.	L4	CO4	5 M

OR

11	a)	Analyze the communication and additional services of AWS.	L4	CO4	5 M
	b)	Describe about the Microsoft Azure core concepts.	L2	CO1	5 M