CBCS SCHEME

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BIS613D

ACHARYA INSTITUTE OF TECHNOLOGY MC Library Date BANGALORE

Sixth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

Cloud Computing and Security

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the different system models used in distributed and cloud computing.	10	L2	CO1
	b.	What are the challenges in ensuring security in a distributed cloud set up?	10	L3	CO1
		OR			
Q.2	a.	Compare performance and energy efficiency in Traditional Vs Cloud-based systems.	10	L3	CO1
	b.	Illustrate the architectural difference between cluster and grid computing.	10	L2	CO1
		Module – 2			
Q.3	a.	Explain the different levels of virtualization implementation.	10	L2	CO2
	b.	List and explain types of hypervisors with examples.	10	L2	CO2
		OR			
Q.4	a.	Explain memory and I/O device virtualization with practical scenarios.	10	L2	CO2
	b.	What are the advantages of virtual clusters over physical clusters.	10	L1	CO2
		Module – 3			
Q.5	a.	Compare the three primary cloud service models : IaaS, PaaS and SaaS.	10	L3	CO3
	b.	Describe the cloud platforms : Google App Engine(GAE), AWS, and Azure.	10	L2	CO3
		OR			
Q.6	a.	What is Inter-Cloud Resource Management? Why is it important?	10	L1	CO3
	b.	Explain the concept of federated cloud and its challenges.	10	L2	CO3
		Module – 4			
Q.7	a.	What is Privacy Impact Assessment (PIA) in cloud computing?	10	L1	CO4
	b.	Compare OS-level security Vs VM level security in cloud.	10	L3	CO4
		OR			
Q.8	a.	Why is security a top concern in cloud computing?	10	L2	CO4
	b.	How does XOAR provide a trusted hypervisor environment?	10	L2	CO4
		Module – 5			
Q.9	a.	How does MapReduce support distributed computing?	10	L2	CO5
	b.	What are emerging cloud software environments? Give examples.	10	L2	CO5
		OR			
Q.10	a.	Discuss application development or AWS using Lambda or EC2.	10	L2	CO5
	b.	Describe parallel computing paradigms in cloud platforms.	10	L2	CO5

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