

Code: 20AM3502, 20DS3502

III B.Tech - I Semester - Regular Examinations - NOVEMBER 2024

CLOUD COMPUTING
(Common for AIML, DS)

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	Define cloud computing and explain its characteristics and benefits.	L2	CO1	7 M
	b)	Describe the cloud computing reference model with a neat diagram.	L2	CO1	7 M
OR					
2	a)	Define virtualization and describe the importance of virtualization in cloud computing. Describe different types of virtualizations.	L2	CO1	10 M
	b)	Summarize notes on VMware.	L2	CO1	4 M
UNIT-II					
3	a)	Use cloud computing architecture with its system model and explain its components.	L3	CO2	7 M
	b)	Illustrate PaaS and how does it differs from IaaS. Write some names of common PaaS providers.	L3	CO2	7 M

OR					
4	a)	Demonstrate IaaS and describe its key characteristics. Write some names of common IaaS providers.	L3	CO2	7 M
	b)	Demonstrate different types of clouds with separate examples.	L3	CO2	7 M
UNIT-III					
5	a)	Describe the different types of policies and mechanisms used for resource management in cloud computing. How do these policies help in optimizing resource utilization and ensuring service level agreements (SLAs)?	L2	CO1	7 M
	b)	Compare and contrast Fair Queuing and Start Time Fair Queuing as scheduling algorithms in cloud computing. How do these algorithms impact fairness and performance?	L4	CO4	7 M
OR					
6	a)	Analyze how control theory is applied to task scheduling in cloud computing. What are the benefits of using control theory approaches for managing cloud resources?	L4	CO4	7 M
	b)	Analyze the role of specialized autonomic performance managers in cloud computing and illustrate how does their coordination contribute to efficient resource management.	L4	CO4	7 M

UNIT-IV					
7	a)	Relate and explain the evolution of storage technology from early magnetic tapes to modern cloud storage solutions. Examine the impacted of these advancements in data storage, access, and management.	L3	CO3	7 M
	b)	Demonstrate the concept of distributed file systems. How do they handle data distribution, fault tolerance, and consistency across multiple nodes? Provide examples of distributed file systems and their features.	L3	CO3	7 M
OR					
8	a)	Demonstrate key security risks associated with cloud computing. How can organizations mitigate these risks to ensure data protection and compliance?	L3	CO3	7 M
	b)	Demonstrate about Virtual Machine Security and what strategies can be employed to secure virtual machines in Cloud environment.	L3	CO3	7 M
UNIT-V					
9	a)	Describe the key compute services offered by Amazon Web Services (AWS). How do these services differ in terms of use cases, scalability, and management?	L2	CO1	7 M
	b)	Analyze the communication services offered by AWS and how they facilitate messaging, notifications, and real-time communication in cloud applications.	L4	CO4	7 M

OR

10	a)	Compare and contrast application life cycle in Google App Engine with development, deployment, scaling, and maintenance.	L4	CO4	7 M
	b)	Classify the core concepts of Microsoft Azure, including its architecture, services, and deployment models.	L4	CO4	7 M