RV22AI007

Date: 29.04.2025	Test - 1	Max. Marks: 50+10
Semester: VI	UG	Duration: $1\frac{1}{2}$ Hrs + ½ Hr
Course Title: Cloud Computing Technology & Architectures		Course Code: AI364TA

Department of Artificial Intelligence and Machine Learning

Note: Answer all the Questions

Q. No		Questions	M	BT	CO
1	a)	Define Cloud Computing.	2M	1	1
	b)	How do small enterprises benefit from cloud computing?	2M	2	1
	c)	What type of cloud service delivers complete applications on demand?	1M	1	1
	d)	List any two differences between Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) in cloud computing	2M	1	2
	e)	What type of storage in IaaS provides a high-level abstraction for storing entities?	1M	2	2
	f)	What is the pricing model used in IaaS?	1M	1	2
	g)	What cloud service model provides applications like office tools on demand?	1M	1	1

Note: Answer all the Questions

Q. No		Questions	M	BT	CO
2	a)	Explain the existence of cloud service across the all market segment ?	6M	2	1
	b)	Identify any four vision of Cloud Computing	4M	2	1
3	a)	A medium-sized e-commerce company is planning to migrate its IT infrastructure to the cloud. The company needs to handle customer data securely, scale quickly during peak seasons, and manage costs efficiently. Discuss how a private cloud, a public cloud, and a hybrid cloud could each be used in this scenario. Which cloud model would you recommend, and why?	6M	4	2
		What are the characteristics of cloud computing?	4M	1	1
4	a)	Discuss the three major milestones that lead to cloud computing.	6M	2	1
	b)	Discuss the hardware architecture of SSID and MISD.			
5	a)	Virtualization has become a core technology in modern IT infrastructure, enabling efficient resource utilization, scalability, and disaster recovery. Discuss how virtualization is applied in real-world scenarios such as data centers, cloud computing, and software testing environments. Explain why virtualization is considered a booming technology and explain its impact on cost, flexibility, and performance in these applications.	6M	3	2
	b)	Differentiate between MIMD and SIMD with suitable examples	4M	2	1
6	a)	How the execution is managed in virtualization is Illustrate	6M	3	2

	b)	A professional is working in a virtualised environment. After some time, they change the operating system on the host machine, yet the virtual machines continue to function without issue. Discuss how virtualisation enables such portability.	4M	3	3

M-Marks, BT-Blooms Taxonomy Levels, CO-Course Outcomes

Marks Distribution	Particulars	CO1	CO2	CO3	CO4	CO5	L1	L2	L3	L4	L5	L6
	Max Marks CIE & Quiz	30	22	3	-	-	11	23	16	6	-	-

Course Outcomes

CO1:	Explain the concepts of cloud computing, models, infrastructure, services, distributed computing, and other related concepts.
CO2:	Apply the fundamental concepts in virtualization, virtualization cluster datacentres to understand the efficiency in PAAS, SAAS, IAAS
CO3:	Illustrate the fundamental concepts of Multi-cloud storage and demonstrate their use in different use cases
CO4:	Analyse various cloud programming models and apply them to solve problems on the cloud.
CO5	Demonstrate the use of modern tools by exhibiting teamwork and effective communication skills