



Roll No:

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**MTECH**  
**(SEM I) THEORY EXAMINATION 2025-26**  
**CLOUD COMPUTING**

TIME: 3 HRS

M.MARKS: 70

**Note:** Attempt all Sections. In case of any missing data; choose suitably.

**SECTION A**

**1. Attempt all questions in brief.**

**02 x 7 = 14**

Q no.	Question	CO	Level
a.	Define Cloud Computing as per NIST model.	CO1	K2
b.	What is Utility Computing?	CO1	K2
c.	List any two business drivers for adopting cloud computing.	CO1	K2
d.	Define Infrastructure as a Service (IaaS).	CO2	K2
e.	Name any two types of virtualization.	CO3	K2
f.	State any two components of an SLA in cloud computing.	CO4	K2
g.	What is Identity and Access Management (IAM) in cloud computing?	CO5	K2

**SECTION B**

**2. Attempt any three of the following:**

**07 x 3 = 21**

Q no.	Question	CO	Level
a.	Explain the evolution of cloud computing. Compare Cloud Computing with Grid and Cluster Computing.	CO1	K3
b.	Explain cloud computing architecture and compare it with traditional client-server architecture.	CO2	K3
c.	Explain cloud service models: IaaS, PaaS, and SaaS with suitable examples.	CO2	K3
d.	Explain virtualization techniques and the role of hypervisors in cloud infrastructure.	CO3	K3
e.	Discuss Service Level Agreements (SLAs), billing, and accounting in cloud computing.	CO4	K3

**SECTION C**

**3. Attempt any one part of the following:**

**07 x 1 = 07**

Q no.	Question	CO	Level
a.	Explain business drivers, benefits, and limitations of cloud computing.	CO1	K4
b.	Discuss the role of open standards and web services in cloud computing.	CO1	K4

**4. Attempt any one part of the following:**

**07 x 1 = 07**

Q no.	Question	CO	Level
a.	Explain deployment models of cloud computing: Public, Private, Hybrid, and Community clouds.	CO2	K4
b.	Explain how cloud computing works with emphasis on networking and protocols.	CO2	K4



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5. Attempt any *one* part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	Explain IaaS architecture with reference to Amazon EC2, including pricing and resource provisioning.	CO3	K4
b.	Discuss storage as a service and data storage challenges in cloud computing.	CO3	K4

6. Attempt any *one* part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	Explain PaaS architecture and management with examples of Google App Engine and Microsoft Azure.	CO3	K4
b.	Explain SaaS model. Discuss Web services, Web 2.0, and Web OS with a suitable case study.	CO3	K4

7. Attempt any *one* part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	Explain cloud security infrastructure covering network, host, and application level security.	CO5	K4
b.	Discuss data security, privacy, jurisdictional issues, authentication, trust, and risk in cloud computing.	CO5	K4