



**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY  
UNIVERSITY, ODISHA, GUNUPUR  
(GIET UNIVERSITY)**

M.C.A (Second Semester) Regular/Supplementary Examinations, May – 2025

**MCA23211 – Cloud Computing  
(MCA)**

Time: 3hrs

Maximum: 60

Marks

**(The figures in the right hand margin indicate marks)**

**PART – A****(2 x 5 = 10 Marks)**Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. What is the significance of load balancing in VM management?	CO1	K1
b. What is a distributed computing system?	CO1	K1
c. What is identity and access management (IAM) in cloud computing?	CO1	K1
d. What is Hybrid Cloud Computing? Write at least two advantages of this.	CO1	K1
e. What is a distributed computing system?	CO1	K2

**PART – B****(10 x5=50 Marks)**Answer **ALL** questions

Marks	CO #	Blooms Level
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2. a.	What are the best practices for ensuring data security in SaaS applications? Discuss the importance of access controls, encryption, and regular audits.	5	CO1	K1
b.	Explain how Google App Engine supports the development and deployment of SaaS applications. What specific features make it advantageous for developers?	5	CO1	K1
<b>(OR)</b>				
c.	What is Software as a Service (SaaS)? What is the importance of centralizing email communications in a SaaS environment?	5	CO1	K1
d.	Define the different stages of VM migration. Analyze the benefits and challenges of VM migration services.	5	CO2	K3
3.a.	Describe the roots of cloud computing and how it evolved from earlier computing models.	5	CO2	K2
b.	Discuss the relationship between grid computing and cloud computing and how they complement each other.	5	CO3	K3
<b>(OR)</b>				
c.	What is infrastructure level security? How Infrastructure security is different from host level security?	5	CO2	K3
d.	What is cloud contracting model and define the various types of contracts?	5	CO2	K2
4.a.	What is Hypervisor? Describe types of hypervisor .	5	CO1	K1
b.	Difference between SAN and NAS.	5	CO2	K3
<b>(OR)</b>				
c.	Compare and contrast traditional hardware scaling with cloud-based hardware scaling, focusing on the flexibility, cost, and performance aspects.	5	CO3	K3

d.	Elucidate the different layers in cloud computing (IaaS, PaaS, SaaS) and their roles.	5	CO2	K2
5.a.	What are the key features of Aneka for managing cloud resources?	5	CO1	K2
b.	What is AWS? Write down the case study of IAAS.	5	CO2	K3
(OR)				
c.	Explain the Aneka Architecture.	5	CO2	K3
d.	What are the common features of hypervisor explain with diagram?	5	CO2	K3
6.a.	Discuss the role of web-based communication tools in SaaS environments. How do these tools facilitate collaboration among team members and enhance productivity?	5	CO1	K1
b.	Discuss the concept of vendor lock-in in the context of SaaS. What are its potential risks for businesses, and how can organizations mitigate these risks?	5	CO2	K2
(OR)				
c.	Analyze the risks associated with cloud computing and how organizations can mitigate these risks in their disaster management plans.	5	CO3	K3
d.	Explain the importance of trust and reputation in cloud computing and how they impact disaster recovery strategies.	5	CO2	K2

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