

Enrollment No./Seat No.:

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA - SEMESTER - III EXAMINATION - WINTER 2025**

**Subject Code: MC03094131**

**Date: 24-11-2025**

**Subject Name: Cloud Computing**

**Time: 10:30 AM TO 01:00 PM**

**Total Marks: 70**

**Instructions**

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Use of simple calculators and non-programmable scientific calculators are permitted.**

	<b>Marks</b>
<b>Q.1 (a)</b> Describe different types of virtualization and their use in cloud computing.	<b>07</b>
<b>(b)</b> Define : VLAN,SAN and also explain VM Migration in brief.	<b>07</b>
<b>Q.2 (a)</b> What is Cluster Computing? Explain advantages and characteristics of Cluster Computing.	<b>07</b>
<b>(b)</b> Why Cloud Computing? Explain Computing Paradigm Evolution.	<b>07</b>
<b>OR</b>	
<b>(b)</b> List and explain the benefits and challenges of cloud computing.	<b>07</b>
<b>Q.3 (a)</b> Explain in detail Service Oriented Architecture (SOA).	<b>07</b>
<b>(b)</b> Explain Fundamental Requirements for Cloud application architecture.	<b>07</b>
<b>OR</b>	
<b>(a)</b> Explain the services provided by Platform as a Service (PaaS) and briefly discuss the issues associated with Software as a Service (SaaS).	<b>07</b>
<b>(b)</b> What is a cloud SLA? Enlist the matrices for cloud SLA. Discuss the importance of cloud SLA.	<b>07</b>
<b>Q.4 (a)</b> Discuss the challenges with cloud data security.	<b>07</b>
<b>(b)</b> Explain data confidentiality, data availability, and data integrity in the cloud.	<b>07</b>
<b>OR</b>	
<b>(a)</b> Explain cloud firewall and virtual firewall.	<b>07</b>
<b>(b)</b> Explain various risk associated in cloud computing.	<b>07</b>
<b>Q.5 (a)</b> Describe Chargeback Models for Allocation of Direct and Indirect Cost.	<b>07</b>
<b>(b)</b> Explain in detail : TCO for cloud.	<b>07</b>
<b>OR</b>	
<b>(a)</b> Explain steps of Developing, Registering and Uploading an Application on Google App Engine.	<b>07</b>

**(b)** Write the steps to create & deploy a simple "Hello World" application on Google AppEngine.

**07**

\*\*\*