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

Subject Code: 639407   **Date: 20-11-2025**

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.

		Marks
Q.1	**(a)** 1. Define the following term: a.Cloud Computing b. Machine Image c. Grid Computing d. Web Oriented Architecture 2. Categorize the following Service Providers into the categories of IaaS, PaaS and Saas: AWS, Google Cloud, Azure, Alibaba Cloud, Heroku, Google App Engine	**07**
	(b) Explain the properties and characteristics of Cloud Computing.	**07**
Q.2	**(a)** List and explain types of cloud computing.	**07**
	(b) Explain the services and service model of cloud computing approach.	**07**
	OR	
	(b) Explain the categorization of Virtualization Product by giving its example.	**07**
Q.3	**(a)** What is Virtualization? Explain CPU Virtualization in details.	**07**
	(b) Write difference between Hyper-v, VMware, and Virtualbox.	**07**
	OR	
	(a) What is SLA? Explain SLA aspects and requirements.	**07**
	(b) Write a detail note on VLAN and SAN.	**07**
Q.4	**(a)** What is TCO for Cloud Computing? Explain its Direct and Indirect Cloud Cost.	**07**
	(b) Explain Fundamental Requirements for Cloud application architecture.	**07**
	OR	
	(a) List and explain the parameters on which the bill of the resources is calculated for a particular client in Google App Engine.	**07**
	(b) Explain the Chargeback methodology for cost allocation procedure.	**07**
Q.5	**(a)** Explain the following in terms of Google App Engine: The Static File Servers, Task Queues and Cron Jobs.	**07**

(b) How the objects are Created, Retrieved, Updated, and Deleted from the Google App Engine Data store?   **07**

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OR

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(a) Write the steps to create & deploy a simple "Hello World" application on Google AppEngine.   **07**

(b) Write down the steps to set up JPA with Google App Engine. Explain the transaction processing in JPA.   **07**

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