

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA– SEMESTER III- EXAMINATION –WINTER-2023

Subject Code:639407**Date: 05/12/2023****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.

- Q.1 (a) [1]** Explain parallel computing in detail. **04**
- [2]** Categorize the following Service Providers into the categories of IaaS, PaaS and SaaS:
 AWS, Google Cloud, Azure, Alibaba Cloud, Heroku, Red Hat Open Shift, Google App Engine. **03**
- (b) [1]** Define the following terms: **04**
- (i) Loosely coupled systems
 - (ii) Utility as service
 - (iii) Distributed computing
 - (iv) Scalability
- [2]** Enlist and define the computing paradigms. **03**
- Q.2 (a) [1]** Explain any four characteristics of the cloud. **04**
- [2]** Compare conventional computing and cloud computing (3 differences only.) **03**
- (b) [1]** Explain the services provided by PaaS. **04**
- [2]** Enlist and explain cloud service models. **03**
- OR**
- (b) [1]** What are the issues with SaaS? **04**
- [2]** Enlist and explain cloud deployment models. **03**
- Q.3 (a)** Explain in detail : TCO for cloud. **07**
- (b)** What is a cloud SLA? Enlist the matrices for cloud SLA. Discuss the importance of cloud SLA. **07**
- OR**
- Q.3 (a)** Enlist and explain any seven risks associated with cloud computing. **07**
- (b)** Give classification of Hypervisors with its pros and cons. Explain CPU virtualization. **07**
- Q.4 (a)** Explain the following in terms of Google App Engine: The Static File Servers , Task Queues and Cron Jobs. **07**
- (b)** Explain Fundamental Requirements for Cloud application architecture. **07**
- OR**
- Q.4 (a)** Explain Multi-tenant Environment with figure and example. **07**
- (b)** Explain Service Oriented Architecture (SOA) for cloud Applications. **07**
- Q.5 (a)** Write the steps to create & deploy a simple "Hello World" application on Google AppEngine. **07**

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

OR

- Q.5** (a) Write down the steps to set up JPA with Google App Engine. Explain the transaction processing in JPA **07**
- (b) Explain steps of Developing, Registering and Uploading an Application on Google App Engine using the example of printing current date and time. **07**
