

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2022****Subject Code:3170717****Date:10-01-2023****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. Simple and non-programmable scientific calculators are allowed.

MARKS

- Q.1** (a) Explain the following terms: **03**
 1) Hardware Virtualization 2) Multi-Tenant 3) Autonomic Computing
- (b) What do you mean by High Availability and Dynamic Resource Allocation features in cloud computing? **04**
- (c) Explain Grid computing and Utility computing. **07**
- Q.2** (a) Justify the statement, “SaaS integration is hard”. **03**
- (b) Describe PaaS Application framework in detail. **04**
- (c) Explain types of clouds based on deployment models with its relevant use case. **07**
- OR**
- (c) Explain IaaS technology in cloud computing with a real-world example. **07**
- Q.3** (a) Explain in brief about application porting in cloud. **03**
- (b) Explain about virtualization in context of data center automation. **04**
- (c) Describe various types of hypervisor and mention pros and cons of each. **07**
- OR**
- Q.3** (a) Explain in brief about the load balancing in cloud computing. **03**
- (b) Draw and explain layered virtualization technology architecture. **04**
- (c) Explain the following virtual machine migration services in detail. **07**
- i) Hot migration
- ii) Cold migration
- Q.4** (a) Enlist the features of cloud management products. **03**
- (b) Write a short note on emerging cloud management standards. **04**
- (c) Discuss about identity management and access control in cloud computing. **07**
- OR**
- Q.4** (a) Enlist the design challenges of cloud infrastructure and resource management. **03**
- (b) Explain the architectural design of compute and storage clouds. **04**
- (c) What is cloud resource management? Explain inter cloud resource management with its challenges. **07**
- Q.5** (a) Explain service level agreement (SLA) in cloud computing with example. **03**
- (b) Write a short note on data security and application security. **04**
- (c) Discuss Eucalyptus cloud middleware along with its architecture. **07**

OR

- Q.5** (a) Explain in brief about the services provided by Microsoft Azure cloud. **03**
(b) Write a short note on disaster recovery in cloud computing. **04**
(c) Discuss Open Stack cloud middleware along with its architecture. **07**
