

Roll No. ....

Total Pages : 3

BT-8/J-25

48245

## CLOUD COMPUTING

Paper-PE-CS-A402A

Time Allowed : 3 Hours]

[Maximum Marks : 75

**Note** : Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

### UNIT-I

1. (a) How do Cluster Computing and Grid Computing differ in terms of Architecture and resource management? 8
- (b) What is the role of open standards in Cloud computing? 7
2. What is Cloud Computing? Discuss its evolution, business drivers, and how it differs from traditional computing models? Explain how organizations benefit from migrating to the Cloud, using real-world examples? 15

### UNIT-II

3. (a) What are the key differences between a Private Cloud and a Hybrid Cloud in terms of Security, Scalability and use cases? 8

- (b) How do virtualization and resource pooling contribute to the efficient operation of Cloud computing environments? 7
4. Define and compare the three cloud service models – IaaS, PaaS, and SaaS. Explain their architecture, use cases, advantages, and limitations with examples. 15

### UNIT-III

5. (a) Describe the role of Databases and Data stores in the cloud. Compare relational databases with NoSQL databases using suitable example. 8
- (b) What is Puppet and how does it assist in cloud management? 7
6. What is a Service Level Agreement (SLA) in the context of Cloud computing? Explain its key components, importance and how it ensures quality and Accountability between Cloud providers and Customers. Support your answer with relevant examples. 15

### UNIT-IV

7. (a) Define network-level security in Cloud computing. Identify common threats to Cloud networks and describe the preventive mechanisms implemented to mitigate these risks. 8
- (b) Discuss the key principles of Data security in Cloud computing. 7

8. Define Identity and Access Management (IAM) in cloud computing. Discuss its components such as authentication, authorization and auditing. Explain how IAM helps in enforcing access policies and protecting cloud assets?

15

