

Time: 3 Hours

Max. Marks: 70

PART-A

(Answer all the Questions 10 x 2 = 20 Marks)

- 1 a Assess two major challenges in implementing cloud computing in large-scale systems. CO1 L5 2M
- b Explain how clusters of cooperative computers contribute to distributed computing. CO1 L2 2M
- c Suggest a suitable deployment model for a government organization and justify your choice briefly. CO2 L2 2M
- d What are the three main cloud service models in XaaS? CO2 L2 2M
- e List the key phases involved in migrating an application to the cloud. CO3 L3 2M
- f Differentiate between CPU virtualization and memory virtualization. CO3 L2 2M
- g What is multi-tenancy in cloud computing? CO4 L1 2M
- h Identify a suitable scenario where using BigTable would be more effective than a relational database. CO4 L3 2M
- i Describe the role of Identity and Access Management (IAM) in cloud environments. CO5 L2 2M
- j Apply the concept of data security to explain how a cloud provider protects customer data. CO5 L3 2M

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

- 2 a Illustrate the evolution of scalable computing technology. CO1 L3 5M
- b Analyze the cloud architecture with neat sketch and explain how each layer contributes to overall service delivery. CO1 L4 5M

OR

- 3 a Define and explain the concept of Grid Computing with an example. CO1 L1 5M
- b Create and explain a suitable SOA architecture for a distributed system. CO1 L6 5M

UNIT-II

- 4 a Compare the IaaS, PaaS and SaaS. CO2 L4 5M
- b Create a detailed comparison between Public Cloud and Private Cloud. CO2 L6 5M

OR

- 5 Illustrate the Life Cycle of Service Level Agreement with neat diagram. CO2 L3 10M

UNIT-III

- 6 a Explain in detail different implementation level of virtualization. CO3 L2 5M
- b Discriminate the Binary Translation with Full Virtualization. CO3 L5 5M

OR

- 7 a Discuss about Virtual Clusters with its advantages. CO3 L2 5M
- b Explain the resource management in virtual clusters. CO3 L2 5M

UNIT-IV

- 8 a Analyze how GFS and HDFS ensure fault tolerance and high availability. CO4 L4 5M
- b Suggest a multi-schema layout for tenant-based cloud applications in smart cities. CO4 L3 5M

OR

- 9 a Highlight the key differences between SimpleDB and Datastore. CO4 L2 5M
- b Propose optimizations for improving throughput in distributed file systems. CO4 L6 5M

UNIT-V

- 10 a Design a model for the life cycle of identity management and explain how each phase. CO5 L6 5M
- b Identify and create an explanation of the key factors that influence the availability of services. CO5 L6 5M

OR

- 11 Summarize the details on cloud infrastructure security. CO5 L2 10M

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