

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is not allowed

Q.No	Question	CO	Marks
Q1	a) What are some key factors to consider when performing capacity planning for cloud services? b) Define "bursting" in cloud capacity planning. c) What is a hybrid cloud, and how does it combine elements of public and private clouds? d) What are the various Security and Authentication schemes available in cloud computing.	CO1	4*2=8
Q2	a) Differentiate between Full Virtualization and para Virtualization. b) Differentiate between Virtual OS and Guest OS.. c) How can organizations optimize their costs when using PaaS? Discuss the role of resource allocation, auto-scaling, and reserved instances in managing expenses.	CO2	3*3=9
Q3	a) What is the role of APIs in PaaS environments? How do they enable interoperability between different services and applications hosted on the platform? b) Explain the difference between Google App Engine's Standard Environment and Flexible Environment. Provide an example of when you might use each.	CO3	2*3=6
Q4	Explain the Cloud Cube model in detail. Also, explain its necessity.	CO3	6
Q5	a) You have an application that requires high availability across multiple regions. Which AWS service can help you deploy and manage the application across different AWS regions? Explain your answer. b) When using EBS snapshots, what considerations should be made regarding snapshot consistency and how can you ensure that snapshots are consistent with respect to data? Explain.	CO4	6