



- Notes :
1. Solve Question 1 OR Questions No. 2.
  2. Solve Question 3 OR Questions No. 4.
  3. Solve Question 5 OR Questions No. 6.
  4. Solve Question 7 OR Questions No. 8.
  5. Solve Question 9 OR Questions No. 10.
  6. Solve Question 11 OR Questions No. 12.
  7. Assume suitable data whenever necessary.
  8. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What are the various legal issues faced when using cloud model? Discuss in detail. 7  
b) What is cloud? Explain the advantages and disadvantages of cloud computing. 6

**OR**

2. a) Discuss the challenges in cloud computing. 6  
b) Compare and contrast cloud computing, cluster computing and grid computing. 7
3. a) What is the role of network in cloud? List and explain protocols used in cloud. 7  
b) Explain deployment models in cloud computing. 6

**OR**

4. a) Explain cloud computing architecture and cloud components. 7  
b) List and explain three service models of cloud computing. 6
5. a) What is the use and need of big data? Explain its characteristics. 7  
b) What is Hadoop? Why do we need it? How it differs from RDBMS? 7

**OR**

6. a) Explain in steps, how Hadoop is configured. 7  
b) What is Map Reduce? Explain how Map Reduce program is executed. 7
7. a) Explain security concerns in cloud computing. 6  
b) Explain how data security and application security is maintained in cloud computing. 7

**OR**

8. a) Explain the importance of Authentication and Authorization in cloud computing. 7  
b) Explain various technologies used for data security in cloud computing. 6
9. a) List and explain features of C#. Net. 7  
b) What is dataset in C#? How to declare dataset in C#? Explain important property of dataset. 7

**OR**

10. a) Write a program in C# to design calculator as console based application. 7  
b) What is ADO. NET? Explain its architecture in detail. 7
11. a) Explain Azure life cycle in detail. 7  
b) Compare Azure table storage and SQL Database. 6

**OR**

12. a) Discuss software development facilities available in Azure Cloud. 7  
b) Explain how Azure maximizes data availability and minimizes security risks. 6

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