



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

1. a) Differentiate between Grid, cluster and cloud computing. 7
- b) Explain the characteristics of cloud computing and advantages of it. 7

OR

2. a) Explain how open stack cloud computing stack is to support heterogenous architectures & accelerators. 7
- b) Explain cloud computing architectures ? Discuss how cloud computing works. 7
3. a) Explain virtual machine technology & pitfalls of virtualization. 7
- b) Explain the following terms **any two**. 6
- i) Load balancing & virtualization.
- ii) Machine Imaging.
- iii) IDaaS.

OR

4. a) Discuss in brief the classification of virtualization. 6
- b) Differentiate between IaaS, PaaS and SaaS. 7
5. a) Discuss EC2 and Amazon storage system. 8
- b) Explain in brief SQL Azure and windows Azure platform. 6

OR

6. a) Explain in brief Aneka Integration of private & public cloud. 7

- b) Explain the role of networks & common protocols used in cloud computing. Also explain the role of google web services used in cloud computing. 7
7. a) Explain 7-step model of migration into cloud. 7
- b) Explain in details different types of cloud application. 6
- OR**
8. a) Discuss broad approaches to migrating into a cloud. 7
- b) Describe the role of mobbing application to cloud migration. 6
9. a) Write short notes on : 6
- i) Identity Access Management
- ii) Infrastructure security in Cloud Computing.
- b) Describe exploring cloud back – up solution. 7
- OR**
10. a) Write short notes on : 6
- i) Provisioning Cloud Storage
- ii) Mechanism of measuring digital universe
- b) Explain in brief about how to secured store data & get data from cloud. 7
11. a) Explain major legal issues when using cloud and mobile computing model. 6
- b) List out different cloud computing tools & explain it in brief. 7
- OR**
12. a) Explain Architecture & Components of Open Nebula. 7
- b) What is Map – Reduce? Explain how map reduce program is executed. 6
