22232 3 Hours / 70 Marks

Seat No.

Instructions:

- (1) All Questions are *compulsory*.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.

Marks

1. Attempt any FIVE of the following:

10

- (a) List benefits of cloud computing.
- (b) Enlist different types of cloud file systems.
- (c) List steps in life cycle of SLA.
- (d) Enlist any 4 cloud platform.
- (e) Explain Paas.
- (f) State any two benefits of virtual data center.
- (g) Enlist different types of SLA.

2. Attempt any THREE of the following:

12

- (a) List and explain any two advantages of storage virtualization.
- (b) Draw & explain storage system architecture.
- (c) Explain federated cloud computing.
- (d) Explain content level security in cloud.



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3. Attempt any THREE of the following:

12

- (a) With neat diagram explain architecture of cloud computing.
- (b) Explain Google File System (GFS).
- (c) Define Service Level Agreement (SLA). Compare different types of SLA.
- (d) Explain working of Amazon EC2 & S3 cloud platform.

4. Attempt any THREE:

12

- (a) Differentiate between VMWare and KVM.
- (b) Explain:
 - (i) Technical Risks
 - (ii) Legal Risks
- (c) Differentiate between open stack & Eucalyptus.
- (d) Describe disadvantages of Virtualisation.
- (e) List any four applications of cloud with IOT.

5. Attempt any TWO:

 $6 \times 2 = 12$

- (a) Differentiate between block level storage virtualisation and file level storage virtualisation (any six points).
- (b) Explain Periodic resource optimisation and Ab-initio Resource assignment.
- (c) Explain digital identity and access management in cloud security.

6. Attempt any TWO:

 $6 \times 2 = 12$

- (a) With neat diagram explain virtualize data center architecture and also explain key elements needed to design VDC.
- (b) Explain appropriate example for the techniques used in cloud computing for managing IT resources.
- (c) Explain IoT technologies used for home automation and also explain relation of home automation with cloud computing.
