Printed Page:- **Subject Code**:- **ACSAI0611/ACSAIH0611**

Roll. No:

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: VI - THEORY EXAMINATION (20 ..... - 20.....)

Subject: Cloud Storage Management

Time: 3 Hours **Max. Marks: 100**

General Instructions:

IMP: *Verify that you have received the question paper with the correct course, code, branch etc.*

1. *This Question paper comprises of* ***three Sections -A, B, & C.*** *It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.*

2. *Maximum marks for each question are indicated on right -hand side of each question.*

3. *Illustrate your answers with neat sketches wherever necessary.*

4. *Assume suitable data if necessary.*

5. *Preferably, write the answers in sequential order.*

6. *No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.*

SECTION-A 20

1. Attempt all parts:-

1-a. Select one of the following software that can be used to implement load balancing. (CO1, K2) 1

(a) Apache mod_balancer

(b) Apache mod_proxy_balancer

(c) F6's BigIP

(d) All of the mentioned

1-b. An example of hybrid cloud is. (CO1, K1) 1

(a) (Ubuntu Enterprise Cloud – UEC

(b) (VMware Cloud Infrastructure Suite

(c) (Eucalyptus

(d) (VMware vCloud

1-c. Choose one option which is NOT a potential security risk in cloud storage. (CO2, K1) 1

(a) Insider attacks

(b) Third-party access

(c) Server downtime

(d) Lack of integration with legacy systems

1-d. Select one of the following which is NOT a best practice for disposing of digital assets and technology. (CO2, K1) 1

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(a) Securely erasing all data
(b) Physically destroying the hardware
(c) Donating the hardware to a charity
(d) Following a formal disposal policy

1-e. By default, each Compute Engine virtual machine (VM) instance has/have _____ boot persistent disk. (CO3, K1) 1

(a) Multi
(b) Single
(c) Dual
(d) None of the mentioned

1-f. Storage Gateway solves: _____. (CO3, K1) 1

(a) On-premises challenges
(b) Cloud storage challenges
(c) Hybrid Cloud Storage Challenges
(d) None of the mentioned

1-g. Snowball devices are designed to be requested and used within _____ AWS Region (CO4, K1). 1

(a) Multi
(b) Global
(c) Single
(d) All of the mentioned

1-h. Assessment of Data Migration viability means _____ (CO4, K2). 1

(a) Assessment of Timelines
(b) Assessment of Tools/Technology
(c) Assessment of Legacy Sources/Risks/Mitigation
(d) All of the mentioned

1-i. CC refers to a model that enables access through the network, according to demand, to a shared pool of _____. (CO5, K2) 1

(a) Softwares
(b) computing resources
(c) Hardware
(d) None of these

1-j. The best cloud storage management services make it simple and easy to manage your data accessibility across _____. (CO5, K2) 1

(a) multiple platforms
(b) single platforms
(c) synchronous platforms
(d) asynchronous platforms

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2. Attempt all parts:-

2.a.	Explain Network virtualization. (CO1, K2)	2
2.b.	Discuss Virtual servers. (CO2, K2)	2
2.c.	Define Persistent disk. (CO3, K1)	2
2.d.	Define ETL (CO4, K1).	2
2.e.	Explain AWS Marketplace with a suitable example. (CO5, K2)	2

SECTION-B 30

3. Answer any five of the following:-

3-a.	Define Routers with their advantage and disadvantage. (CO1, K2)	6
3-b.	Discuss any five points related to importance of virtualization in cloud storage. (CO1, K2)	6
3-c.	Define systematic approach to data security in cloud storage with suitable example. (CO2, K2)	6
3-d.	Discuss all the data management strategy in cloud storage with suitable example. (CO2, K2)	6
3.e.	Define following: (i) S3 versioning (ii) S3 Object lock (iii) S3 Replication. (CO3, K1)	6
3.f.	Write Short notes on: (i) Lift and Shift (ii) Move and Improve (CO4, K2).	6
3.g.	Justify the statement "Scalability is central to meeting the changing needs of dynamic e-commerce businesses." (CO5, K3)	6

SECTION-C 50

4. Answer any one of the following:-

4-a.	Define Cloud storage with suitable example and also discuss its advantages and disadvantages. (CO1, K2)	10
4-b.	Rohit develops an access control model for data stored in multiple virtualized environments. Develop his model with technical justification. (CO1, K6)	10

5. Answer any one of the following:-

5-a.	Define Data infrastructure for cloud storage with proper flow diagram and suitable example. (CO2, K2)	10
5-b.	Muskan handles sensitive data and wants to dispose of legacy storage without leaving digital footprints. Outline a secure disposal plan. (CO2, K3)	10

6. Answer any one of the following:-

6-a.	Review the Persistent Disk of GCP and also discuss its types. (CO3, K2)	10
6-b.	Explain various features of Amazon EBS. (CO3, K2)	10

7. Answer any one of the following:-

7-a.	Discuss challenges in Data Synchronisation and also brief the role of data integration in data synchronisation (CO4, K2).	10
7-b.	Write a note on migration planning steps and explain how it supports successful	10

cloud adoption (CO4, K3).

8. Answer any <u>one</u> of the following:-

8-a.	Describe the challenges and outcomes of Siemens Mobility using AWS cloud services. (CO5, K2)	10
8-b.	Akash is studying a company that failed to maintain its infrastructure due to bare metal limitations. Prepare an evaluation of what went wrong and propose a recovery plan. (CO5, K5)	10

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