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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

M.Tech (Integrated)

SEM: VI - THEORY EXAMINATION (2022-2023)

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

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1. Attempt all parts:-

- 1-a. Select private cloud from following. (CO1) 1
- (a) Amazon EC2
 - (b) Azure
 - (c) Eucalyptus
 - (d) Google App Engine
- 1-b. Cloud computing is a _____ system and it is necessarily unidirectional in nature. (CO1) 1
- (a) stateless
 - (b) stateful
 - (c) reliable
 - (d) all of the mentioned
- 1-c. Select one of the following which is NOT a security challenge faced in cloud storage management. (CO2) 1
- (a) Data loss

- (b) Data breaches
- (c) Data theft
- (d) Data corruption
- 1-d. Chose one option which is NOT a potential security risk in cloud storage. (CO2) 1
- (a) Insider attacks
- (b) Third-party access
- (c) Server downtime
- (d) Lack of integration with legacy systems
- 1-e. The following protocol is used for discovering and retrieving objects from a cloud. (CO3) 1
- (a) SMTP
- (b) OCCI
- (c) SOAP
- (d) HTTP
- 1-f. The following feature make cloud-based storage systems highly reliable. (CO3) 1
- (a) Redundant networks
- (b) Redundant name servers
- (c) Replication
- (d) All of the mentioned
- 1-g. Select the following cloud storage that is consumed by file sharing software. (CO4) 1
- (a) Managed
- (b) Replicated
- (c) Unmanaged
- (d) None of the mentioned
- 1-h. Snowball devices are designed to be requested and used within _____ AWS Region. (CO4) 1
- (a) Multi
- (b) Global
- (c) Single
- (d) All of the mentioned
- 1-i. Google Cloud Storage includes a free tier that includes_____. (CO5) 1
- (a) 10 GB of free storage

- (b) 15 GB of free storage
- (c) 20 GB of free storage
- (d) 30 GB of free storage

- 1-j. Cloud data management providers are committed to providing the best services and capabilities. When applications need updating, cloud providers run these updates _____.(CO5) 1
- (a) instantly
 - (b) eventually
 - (c) automaticall
 - (d) manually

2. Attempt all parts:-

- 2.a. Define Block storage. (CO1) 2
- 2.b. Explain digital assets in cloud storage. (CO2) 2
- 2.c. Define Network-based storage virtualization. (CO3) 2
- 2.d. Define 'Lift and Shift' strategy. (CO4) 2
- 2.e. Confer 2017's and 2018's black Friday. (CO5) 2

SECTION B

30

3. Answer any five of the following:-

- 3-a. Define I/O connectivity related cloud storage with suitable example. (CO1) 6
- 3-b. Discuss file storage with their advantage and disadvantage. (CO1) 6
- 3-c. Define "data infrastructure" for cloud storage with suitable example. (CO2) 6
- 3-d. Define dark territories in cloud data center with suitable example. (CO2) 6
- 3.e. Brief Amazon FSx. (CO3) 6
- 3.f. Write short notes on: (i) AWS Snow Family (ii) AWS Snow Edge (CO4) 6
- 3.g. Discuss cloud specific challenges encountered by Walgreens "A pharma company". (CO5) 6

SECTION C

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4. Answer any one of the following:-

- 4-a. Discuss storage virtualization with suitable example and their scope. (CO1) 10
- 4-b. Explain Community cloud and it's application with suitable example. (CO1) 10

5. Answer any one of the following:-

- 5-a. Explain Security checklist in cloud security with suitable example and also discuss their advantage and disadvantage. (CO2) 10

5-b. Discuss any six Cloud Data Security Issues with suitable real life example. (CO2) 10

6. Answer any one of the following:-

6-a. Differentiate various storage media solutions over different parameters like: Performance, Cost, Capacity and Endurance. (CO3) 10

6-b. Detail the functionalities of storage solutions and also draw the storage system architecture with API interaction. (CO3) 10

7. Answer any one of the following:-

7-a. Differentiate IaaS Migration, PaaS migration and SaaS Migration. (CO4) 10

7-b. Discuss the role of Data Replication, Data Cleansing and Data Harmonization in Data Synchronization. (CO4) 10

8. Answer any one of the following:-

8-a. Explain the migration objective of SHOPIFY. (CO5) 10

8-b. Explain the statement "Achieving Burstable Scalability and Consistent Uptime Using AWS Lambda with TiVo". (CO5) 10

2022-23 Jan_June