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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 (2025 - 2026)

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:-

- | | | |
|-------|--|---|
| (1.1) | Select the right way how is data stored in block storage. (CO1, K1) | 1 |
| | <ul style="list-style-type: none"> (a) In a hierarchical file system (b) In a flat structure of objects with unique identifiers (c) In fixed-sized blocks (d) In a sequential structure of bytes | |
| (1.2) | Select which of the following is an example of a block storage service. (CO1, K2) | 1 |
| | <ul style="list-style-type: none"> (a) Amazon EBS (b) Google Drive (c) OneDrive (d) Dropbox | |
| (1.3) | Select one of the following which is NOT a best practice for disposing of digital assets and technology. (CO2, K1) | 1 |
| | <ul style="list-style-type: none"> (a) Securely erasing all data (b) Physically destroying the hardware (c) Donating the hardware to a charity (d) Following a formal disposal policy | |
| (1.4) | Select the right option which defines the primary risk associated with disposing of digital assets and technology. (CO2, K2) | 1 |
| | <ul style="list-style-type: none"> (a) Data loss (b) Unauthorized access to sensitive information (c) Hardware malfunction (d) Network downtime | |

- (1.5) Zonal persistent disks provide replication of data within _____ zone in a region. (CO3, K1) 1
- (a) Multi
 - (b) Global
 - (c) Single
 - (d) All of the mentioned
- (1.6) Objects in Cloud Storage are . (CO3, K1) 1
- (a) Mutable
 - (b) Immutable
 - (c) Both of the above
 - (d) None of the mentioned
- (1.7) The Snowball and the Snowball Edge are two _____ devices (CO4, K1). 1
- (a) Different
 - (b) Same
 - (c) Identical
 - (d) Duplicate
- (1.8) The _____ is a standalone terminal application that you run on your local workstation to do your data transfer (CO4, K1). 1
- (a) Snowball Family
 - (b) Snowball Edge
 - (c) Snowball client
 - (d) None of the mentioned
- (1.9) Your developers can focus on solving complex application problems instead of having to manage _____. (CO5, K1) 1
- (a) Software systems
 - (b) storage systems
 - (c) hardware systems
 - (d) None of these
- (1.10) _____ allow IT to quickly deliver the exact amount of storage needed, whenever and wherever it's needed. (CO5, K1) 1
- (a) Cloud storage services
 - (b) backup services
 - (c) hardware services
 - (d) maintenance services

2. Attempt all parts:-

- (2.1) Explain Server virtualization. (CO1, K2) 2
- (2.2) Discuss applications related issues in cloud storage management. (CO2, K2) 2
- (2.3) Enlist benefits of storage virtualization. (CO3, K1) 2
- (2.4) Define Application Migration (CO4, K1). 2
- (2.5) Discuss the ways in which AWS empowers CloudCall. (CO5, K2) 2

SECTION-B

30

Answer any one of the following:-

- (3.1) Discuss Full virtualization with suitable example. (CO1, K2) 6
- (3.2) Explain Object storage with its advantages and disadvantages. (CO1, K2) 6

Answer any one of the following:-

- (3.3) Define Network Blind spots with suitable example also discuss its effects on cloud services. (CO2, K2) 6
- (3.4) Explain digital assets in cloud storage with suitable example. (CO2, K2) 6

Answer any one of the following:-

- (3.5) Discuss the three throughput modes of Amazon EFS. (CO3, K2) 6
- (3.6) Discuss the two performance modes of Amazon EFS. (CO3, K2) 6

Answer any one of the following:-

- (3.7) Enlist and discuss the problems arising in database migration (CO4, K2). 6
- (3.8) Enlist and brief the services in AWS Transfer Family (CO4, K2). 6

Answer any one of the following:-

- (3.9) Explain in detail the ways in which AWS empowers Orion Health. (CO5, K2) 6
- (3.10) Explain in detail how AWS empowers CloudCall. (CO5, K2) 6

SECTION-C

50

4. Answer any one of the following:-

- (4.1) Differentiate between File storage and Block storage with suitable example. (CO1, K4) 10
- (4.2) Differentiate between Hybrid cloud and Community cloud with suitable example. (CO1, K4) 10

5. Answer any one of the following:-

- (5.1) Explain Cloud Virtual Environments with suitable example and also discuss their advantage and disadvantage. (CO2, K2) 10
- (5.2) Define Network Blind spots with suitable real life example also discuss its effects on cloud services. (CO2, K2) 10

6. Answer any one of the following:-

- (6.1) Discuss Hybrid cloud storage, its need, and challenges. (CO3, K2) 10
- (6.2) Write short notes on: (i) Bucket (ii) Object in cloud storage (iii) Versioning (iv) Access control. (CO3, K2) 10

7. Answer any one of the following:-

- (7.1) Infer PaaS migration and discuss its differences with IaaS and SaaS migration (CO4, K5). 10
- (7.2) Discuss the role of Data Replication, Data Cleansing and Data Harmonization in Data Synchronization (CO4, K2). 10

8. Answer any one of the following:-

- (8.1) Describe how AWS empowers Engie and the impact on their business. (CO5, K2) 10
- (8.2) Discuss how AWS supports Toyota and the benefits gained through cloud adoption. (CO5, K2) 10