USN

18CS822

Eighth Semester B.E. Degree Examination, July/August 2022
Storage Area Networks

Time: 3 hrs.

Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. Explain the core elements of data centre along with its key characteristics. (10 Marks)
  b. Discuss the process of host access to storage. (06 Marks)
  c. Write a short note on evolution of storage architecture. (04 Marks)

OR

2 a. Explain in detail disk drive components with suitable diagram. (10 Marks)
  b. Discuss the concept of DAS with advantages and disadvantages. (06 Marks)
  c. Explain disk partitioning and concatenation. (04 Marks)

Module-2

3 a. What is RAID? List different RAID levels where parity technique has been adopted. Explain nested RAID, RAID 3, RAID 5 with diagram. (10 Marks)
  b. Write a short note on : i) Node ports ii) Cable and connectors. (06 Marks)
  c. Discuss RAID impact on disk performance. (04 Marks)

OR

4 a. Explain structure of cache with operations. (10 Marks)
  b. List and explain RAID techniques. (06 Marks)
  c. List types of intelligent storage systems and explain any one in detail. (04 Marks)

Module-3

5 a. Write a note on iSCSI and its topologies. (08 Marks)
  b. Explain the advantages of NAS. (08 Marks)
  c. Compare CIFS and NFS protocols. (04 Marks)

OR

6 a. Explain fibre channel protocol stack with neat diagram and write a short note on its performance and security. (08 Marks)
  b. Explain NAS components with diagram. (06 Marks)
  c. With a neat diagram explain Gateway network attached storage connectivity. (06 Marks)

Module-4

7 a. Discuss the life cycle of BC Planning. (10 Marks)
  b. List some important BC technology solutions. Explain the failure analysis in BC. (10 Marks)

OR

8 a. Describe backup and restore operation. (10 Marks)
  b. Write a short note on : i) Backup architecture ii) Backup purpose. (10 Marks)

Module-5

9 a. Mention major local replication technologies. Explain network based local replication. (10 Marks)
  b. Discuss flushing the file system buffer. (05 Marks)
  c. Explain the uses of local Replicas. (05 Marks)

OR

10 a. Write a short note on array based synchronous remote replication. (06 Marks)
   b. Explain security threats in backup, replication and archieve environment. (06 Marks)
   c. Write a note on : i) Assets ii) Vulnerability. (08 Marks)

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