

# CBCS SCHEME

17CS754



Seventh Semester B.E. Degree Examination, Jan./Feb. 2021

## 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 key characteristics of Data centre with neat diagram. (08 Marks)
- b. Explain the core elements of Data center. (04 Marks)
- c. Discuss the process of mapping user files to disk storage with neat diagram. (08 Marks)

OR

- 2 a. Describe the concept of Mirroring and Parity. (04 Marks)
- b. What is RAID? Explain the RAID levels with reference to nested RAID, RAID 3 and RAID 5 with neat diagram. (08 Marks)
- c. Discuss the components of an intelligent storage system with neat diagram. (08 Marks)

### Module-2

- 3 a. List and explain different Fibre channel connectivity options with neat diagram. (08 Marks)
- b. Define FCOE. Explain components of an FCOE network. (08 Marks)
- c. Define Zoning. Explain types of Zoning. (04 Marks)

OR

- 4 a. Discuss components of NAS with neat diagram. (06 Marks)
- b. List and explain benefits of NAS. (06 Marks)
- c. Explain object storage and Retrieval in OSD with diagram. (08 Marks)

### Module-3

- 5 a. Define Business Continuity. Explain BC terminology in detail. (06 Marks)
- b. Discuss different Backup Topologies. (08 Marks)
- c. Explain the concept of Backup in virtualized Environments. (06 Marks)

OR

- 6 a. Explain local Replication technology using Host based methods. (08 Marks)
- b. Discuss synchronous + Asynchronous and Synchronous + Disk Buffered of three site replication. (06 Marks)
- c. Explain the concept of Remote replication and migration in a Virtualized Environment. (06 Marks)

### Module-4

- 7 a. Define Cloud Computing. List and explain the essential characteristics of cloud computing. (08 Marks)
- b. List the cloud service models and discuss any two of them. (08 Marks)
- c. List and explain benefits of cloud computing. (04 Marks)

OR

- 8 a. Explain Cloud Deployment models in detail. (10 Marks)  
b. Explain Cloud Computing infrastructure in detail. (10 Marks)

Module-5

- 9 a. List and explain the different types of security threats. (06 Marks)  
b. Discuss IPSAN CHAP protocol with neat diagram. (06 Marks)  
c. Discuss security solutions for FC-SAN and NAS. (08 Marks)

OR

- 10 a. List and describe storage infrastructure management activities. (04 Marks)  
b. Explain Information lifecycle management with proper example. (08 Marks)  
Discuss two methods of storage tiering. (08 Marks)

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