



CBCS SCHEME

17CS754

Seventh 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 evolution of storage architecture with neat diagram. (08 Marks)
- b. Discuss the key characteristics of a data center, with a neat diagram. (08 Marks)
- c. Explain the concept of virtualization. (04 Marks)

OR

- 2 a. What is RAID? Explain the RAID level with reference to nested RAID, RAID2, RAID4 and RAID5 with neat diagram. (08 Marks)
- b. Discuss the components of intelligent storage system with a neat diagram. (08 Marks)
- c. Describe the concepts of mirroring and parity. (04 Marks)

Module-2

- 3 a. Define FCOE? Explain the concepts of FCOE network. (08 Marks)
- b. What is NAS? Explain the NAS implementation in detail. (08 Marks)
- c. Define zoning with its types. (04 Marks)

OR

- 4 a. List and explain the benefits of NAS. (06 Marks)
- b. Explain the fibre channel protocol stack with neat diagram. (08 Marks)
- c. Explain FCIP topology with neat diagram. (06 Marks)

Module-3

- 5 a. Differentiate between synchronous and asynchronous based remote replication. (08 Marks)
- b. Explain backup in virtualized environments. (08 Marks)
- c. Define the following terminologies:
 - (i) MTBF
 - (ii) RPO
 - (iii) MTTR
 - (iv) RTO(04 Marks)

OR

- 6 a. Discuss data deduplication implementations. (08 Marks)
- b. Describe the failure analysis in BC. Mention some important BC technology solutions. (08 Marks)
- c. Explain any two backup topologies with neat diagram. (04 Marks)

Module-4

- 7 a. Define cloud computing. List and explain essential characteristics of cloud computing. (08 Marks)
- b. Explain the benefits of cloud computing in detail. (04 Marks)
- c. List and explain the various cloud services available. (08 Marks)

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OR

- 8 a. List and explain the challenges faced in cloud computing. (10 Marks)
b. Explain cloud deployment models in detail. (10 Marks)

Module-5

- 9 a. Explain the storage management activities in detail. (08 Marks)
b. Discuss IPSAN security implementation in storage networking. (08 Marks)
c. Explain different types of security threats. (04 Marks)

OR

- 10 a. Explain the concept of Kerberos with neat diagram. (08 Marks)
b. Discuss two methods of storage tiering. (08 Marks)
c. List and describe storage infrastructure management activities. (04 Marks)

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