

USN

--	--	--	--	--	--	--	--	--	--

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)

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)

* * * * *