CBCS SCHEME

17CS754

Seventh Semester B.E. Degree Examination, June/July 2024
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.	Discuss the process of handling I/O in a NAS environment with help of a diagram.	(10 Marks)
	b.	Explain Fibre channel architecture with suitable diagram.	(10 Marks)

OR

4	a.	Explain zoning and its type.	(10 Marks)
	b.	Explain with diagram the process of storing and retrieving objects in OSD.	(10 Marks)

Module-3

5	a.	Explain with a diagram Business Continuity (BC) planning life cycle.	(10 Marks)
	b.	What is Data Deduplication? Explain its implementation methods.	(10 Marks)

OR

6	a.	Explain direct attached and LAN based back up topologies with diagram.	(10 Marks)
	b.	Differentiate between synchronous and asynchronous based remote replication model.	(10 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. Explain how authentication and authorization can be provided to NAS file sharing using Kerberos. **(10 Marks)**

   b. Explain storage infrastructure management challenges. **(10 Marks)**

OR

10 a. Explain the monitoring parameters and components monitored for storage management. **(10 Marks)**

   b. Explain how IPSAN can be secured using CHAP authentication technique. **(10 Marks)**

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