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CBCS SCHEME

18CS822

Eighth Semester B.E. Degree Examination, Jan./Feb. 2023 **Storage Area Networks**

Max. Marks: 100 Time: 3 hrs.

N	ote: Answer any FIVE full questions, choosing ONE full question from each mo	dule.
	Module-1	
a.	What is data center? Explain key characteristics of data center with a neat diagram	n.(05 Marks)
b.	Explain the evolution of storage architecture with a neat diagram.	(05 Marks)
c.	Describe volume manager and compute virtualization with a neat diagram.	(10 Marks)
	OR OR	
a.	Explain disk drive components.	(05 Marks)
b.	What is a file system? Explain the process of mapping user files to disk storage.	(10 Marks)
c.	Explain the following keywords:	
	(i) Seek time (ii) Rotational latency (iii) Data transfer rate.	(05 Marks)
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	Module-2	1.0.4.10.5
a.	What is RAID? Explain RAID levels with reference to nested RAID, RAID3 a	
	with a neat diagram.	(10 Marks)
b.	With a neat diagram, explain the structure of read and write operations in cache.	(05 Marks)
c.	Explain the types of intelligent storage systems.	(05 Marks)
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	OR O	(05 Marks)
a.	Explain cache management and data protection methods.	(10 Marks)
b.	Explain the components of Intelligent Storage Systems.	(10 Marks) (05 Marks)
c.	Explain the components of fiber channel SAN.	(03 Marks)
	Module-3	
	Describe different iSCSI topologies with neat diagram.	(07 Marks)
a. b.	What is FCIP? Explain FCIP protocol stack.	(06 Marks)
c.	Describe the benefits of NAS.	(07 Marks)
C.	Describe the benefits of taxes.	(0,71,411,13)
1	OR)	
a.	What is NAS? Explain NAS implementation in detail.	(10 Marks)
b.	Explain NAS file sharing protocols.	(10 Marks)
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	Module-4	
a.	Explain backup and restore operation with neat diagram.	(10 Marks)
b.	Describe failure analysis in BC. Explain single point of failure how to mitigate s	ingle point
	of failure.	(10 Marks)
	OR	
a.	Define the following terminologies:	

- - ii) RPO
- iii) MTTR
- iv) RTO

- (10 Marks)
- Mention backup topologies. List various backup target solution and explain anyone with a (10 Marks) neat diagram.

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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		Module-5	
9	a.	Describe the uses of local replication.	(05 Marks)
		Explain storage array based local replication in detail.	(15 Marks)
		OR	

b. Differentiate between synchronous and synchronous remote replication modes. c. Explain FCSCAN security architecture with a neat diagram. ****** 2 of 2 ****** CMRIT LIBRARY BANGALORE - 569 033		b.	Explain storage array based local replication in detail.	(15 Marks)
a. Explain host based remote replication with neat diagram. (10 Marks) Differentiate between synchronous and asynchronous remote replication modes. Explain FCSCAN security architecture with a neat diagram. ******* 2 of 2				
b. Differentiate between synchronous and asynchronous remote replication modes. (85 Marks) ****** 2 of 2	10			(10 Ml)
c. Explain FCSCAN security architecture with a neat diagram. (05 Marks)	10		Explain host based remote replication with neat diagram.	
THE TRANSPORT OF THE PROPERTY			Explain ECSCAN security architecture with a next diagram	
CR.		C.	Explain Pescall security are intecture with a near diagram.	(US Marks)
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