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15CS754

Seventh Semester B.E. Degree Examination, July/August 2022  
**Storage Area Networks**

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

**Module-1**

- 1 a. Explain following key data centre elements with neat diagrams: (08 Marks)  
(i) Connectivity (ii) Storage  
b. Define RAID Array components and explain RAID techniques with neat diagrams. (08 Marks)

OR

- 2 a. Explain RAID 0 to RAID 6 levels with neat diagrams. (10 Marks)  
b. Explain the components of intelligent storage systems with neat diagrams. (06 Marks)

**Module-2**

- 3 a. Explain Fibre Channel Connectivity Architecture with three basic Inter Connectivity options. (08 Marks)  
b. Explain fibre channel protocol stack and addressing with neat diagrams. (04 Marks)  
c. Define Zoning. Explain types of Zoning. (04 Marks)

OR

- 4 a. Explain two types of network based virtualization techniques in SAN with neat diagrams. (08 Marks)  
b. Explain the following leveraging IP protocols with neat diagrams: (08 Marks)  
(i) iSCSI (ii) FCIP

**Module-3**

- 5 a. Explain Business Continuity Planning Life Cycle with neat diagrams. (08 Marks)  
b. Explain Data Deduplication and Implementation Scenario's with respect to neat diagrams. (08 Marks)

OR

- 6 a. With neat diagrams, explain types of Local Replication Technologies. (08 Marks)  
b. Explain Three-Site Replication interms of Multihop and Multitarget Solutions with neat diagrams. (08 Marks)

**Module-4**

- 7 a. Explain Cloud service Models with neat diagrams. (08 Marks)  
b. Explain cloud computing infrastructure layers with neat diagrams. (08 Marks)

OR

- 8 a. Explain the challenges of cloud computing interms of consumers and providers. (06 Marks)  
b. Explain the cloud deployment models according to NIST with neat diagrams. (10 Marks)

**Module-5**

- 9 a. Explain any two storage security domains with neat diagrams. (08 Marks)  
b. Explain FC-SAN Security Implementation in storage networking with neat diagrams. (08 Marks)

OR

- 10 a. Explain Information Lifecycle Management with changing values. (06 Marks)  
b. Define storage tiering and explain types with neat diagrams. (06 Marks)  
c. Explain storage infrastructure management challenges. (04 Marks)

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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.