

# CBCS SCHEME

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17CS754

Seventh Semester B.E. Degree Examination, Feb./Mar. 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. What is a data center? List the core elements of data center. Explain the characteristics of data center. (10 Marks)
- b. Explain with diagram the evolution of storage architecture. (10 Marks)

OR

- 2 a. Describe with block diagram the components of Intelligent Storage System (ISS). (10 Marks)
- b. What is a file system? Explain the process of mapping user files to the disk storage. (10 Marks)

### Module-2

- 3 a. Explain with diagram the components of Fiber Channel (FC) storage area network. (10 Marks)
- b. What is NAS? Explain the component of NAS with diagram. (10 Marks)

OR

- 4 a. Explain ISCSI implementation with schematic diagram. (10 Marks)
- b. What is zoning? Explain the zoning types with neat diagram. (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. Explain the different types of cloud service models. (10 Marks)
- b. Define cloud computing. Explain the characteristics and benefits of cloud computing. (10 Marks)

OR

- 8 a. With diagram, explain cloud deployment models. (10 Marks)
- b. Explain In-band storage appliance with neat diagram. (10 Marks)

### Module-5

- 9 a. List and explain different storage infrastructure management activities. (10 Marks)
- b. Explain (Fiber Channel) FC SAN security architecture with a diagram. (10 Marks)

OR

- 10 a. Explain information security framework designed to achieve security goals. (06 Marks)
- b. What is Information Lifecycle Management (ILM)? List and explain the benefits of ILM. (08 Marks)
- c. Explain storage Tiering. (06 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.