17CS754

USN

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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