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UBIN					

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 What is a data center? List the core elements of data center. Explain the characteristics of 1 (10 Marks) Explain with diagram the evolution of storage architecture. (10 Marks) OR Describe with block diagram the components of Intelligent Storage System (ISS). (10 Marks) What is a file system? Explain the process of mapping user files to the disk storage. (10 Marks) Module-2 Explain with diagram the components of Fiber Channel (FC) storage area network. (10 Marks) 3 What is NAS? Explain the component of NAS with diagram. (10 Marks) Explain ISCSI implementation with schematic diagram. (10 Marks) What is zoning? Explain the zoning types with neat diagram. (10 Marks) Explain with a diagram Business Continuity(BC) planning life cycle. 5 (10 Marks) What is data deduplication? Explain its implementation methods. (10 Marks) Explain direct attached and LAN based back up topologies with diagram. (10 Marks) Differentiate between synchronous and asynchronous based remote replication model. (10 Marks) 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) With diagram, explain cloud deployment models. (10 Marks) Explain In-band storage appliance with neat diagram. (10 Marks) List and explain different storage infrastructure management activities. 9 (10 Marks) Explain (Fiber Channel) FC SAN security architecture with a diagram. (10 Marks)

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

(08 Marks) (06 Marks)

Explain storage Tiering.