

Seventh Semester B.E. Degree Examination, Feb./Mar. 2022
Storage Area Networks

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART – A

- 1
 - a. Explain the Evolution of Storage technology. (05 Marks)
 - b. Describe ILM implementation in detail with its benefits. (05 Marks)
 - c. Explain Disk Drive Components, with suitable diagram. (10 Marks)
- 2
 - a. Explain the following with appropriate diagrams :
 - i) Raid 0 ii) Raid 1 iii) Nested Raid iv) Hot spares. (10 Marks)
 - b. With a neat diagram, explain the components of Intelligent Storage System (ISS). (05 Marks)
 - c. With a neat diagram, explain the features of High end storage systems. (05 Marks)
- 3
 - a. Explain Disk Dive interface, with neat diagram. (05 Marks)
 - b. Describe SCSI – 3 architecture in detail with diagram. (05 Marks)
 - c. Explain FC connectivity with related diagram. (10 Marks)
- 4
 - a. Define NAS. List the benefits of NAS. Explain different NAS implementations in detail. (10 Marks)
 - b. Mention the topologies of iSCSI connectivity. Briefly explain them. Also write the diagram of iSCSI protocol stack. (10 Marks)

PART – B

- 5
 - a. Define CAS. List the benefits of CAS. Explain CAS Architecture in detail. (10 Marks)
 - b. What is Virtualization? Explain the types of storage virtualization in detail. (10 Marks)
- 6
 - a. Discuss “BC Planning Lifecycle”. (10 Marks)
 - b. Discuss Backup and Restore operations in detail. (10 Marks)
- 7
 - a. What are the five main reasons to consider for creating one or more ‘Local Replicas’? Explain. (05 Marks)
 - b. Define Data Consistency. Which are the important factors to consider ensuring the data consistency in all replication technologies? (07 Marks)
 - c. Describe the two basic modes of ‘Remote Replication’ with a neat diagram. (08 Marks)
- 8
 - a. Which are the four primary security attributes or the services to migrate the threats? Write a brief note on all of them. (05 Marks)
 - b. Discuss the following issues related to Risk management of the storage infrastructure
 - i) Assets ii) Threats iii) Vulnerability. (15 Marks)
