USN | | | | | | | | | | **10MCA555**

Fifth Semester MCA Degree Examination, June/July 2017
Storage Area Network

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. What are the seven requirements of storage technology?   **(10 Marks)**
   b. What are the five core technology elements of the Data center Infrastructure? **(05 Marks)**
   c. Differentiate between :
       i)   Seek Time and Rotational Time
       ii) Internal and External transfer rates.   **(05 Marks)**

2 a. Explain the different types of RAID level available in market.   **(10 Marks)**
   b. Explain least recently used and most recently used algorithms.   **(05 Marks)**
   c. Differentiate between write through and write back cache.   **(05 Marks)**

3 a. What is the component of SAN? Explain in detail.   **(10 Marks)**
   b. Explain types of zoning.   **(04 Marks)**
   c. Explain SCSI-3 client server model.   **(06 Marks)**

4 a. What is Network Attached Storage (NAS)? List the benefits of NAS with brief discussion.
                                                                                 (08 Marks)
   b. What are the NAS components, discuss them, with necessary diagram.   **(06 Marks)**
   c. Explain the topologies for iSCSI connectivity.   **(06 Marks)**

5 a. List out the features and benefits of Content Address Storage (CAS).   **(06 Marks)**
   b. Explain the process of storing and retrieving objects in CAS.   **(10 Marks)**
   c. Brief out the storage virtualization challenges.   **(04 Marks)**

6 a. Explain Business Continuity (BC) planning Life cycle.   **(07 Marks)**
   b. Explain Backup and Restore operations.   **(06 Marks)**
   c. Describe different types of Backup Topologies.   **(07 Marks)**

7 a. Explain storage Array-Based Local Replication.   **(10 Marks)**
   b. What is the different type of modes of Remote Replication?   **(05 Marks)**
   c. Describe synchronous Replication mode in Remote Replication. (Array based) **(05 Marks)**

8   Write short notes on each
   a. Alerts
   b. Kerberos
   c. Basic SAN security mechanisms
   d. Storage security framework.   **(20 Marks)**

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