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10CS/IS765

Seventh Semester B.E. Degree Examination, June/July 2017
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 drive 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. Describe NAS implementations and benefits, with a neat diagram. **(10 Marks)**
   b. Explain NAS file sharing protocols. **(05 Marks)**
   c. Explain iSCSI protocol stack, with a neat diagram. **(05 Marks)**

PART – B

5. a. Explain object storage and retrieval in CAS, with suitable diagrams. **(10 Marks)**
   b. Describe storage virtualization types in detail and discuss its challenges. **(10 Marks)**

6. a. Describe the failure analysis in BC. Briefly explain BC technology solution. **(10 Marks)**
   b. With a neat diagram, explain the steps involved in backup and restore operation. **(10 Marks)**

7. a. Explain the following : i) Uses of local replica   ii)   LVM – based replication
      iii) Full – volume mirroring. **(10 Marks)**
   b. What is Remote Replication? Explain Host – based remote replication, with a neat diagram. **(10 Marks)**

8. a. Briefly explain the SAN security architecture also discuss the protection strategies implemented in various security zones. **(10 Marks)**
   b. Describe Storage Management activities in detail with example. **(10 Marks)**

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