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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)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.