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10CS/IS765

**Seventh Semester B.E. Degree Examination, July/August 2021**  
**Storage Area Networks**

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1 a. What is Data? Explain the key characteristics of a data center with a neat diagram. (10 Marks)  
b. What is Information Life Cycle Management? Explain in detail ILM implementation with its benefits. (10 Marks)
- 2 a. What is intelligent storage system? With the support of a diagram, explain the components of an intelligent storage system. (10 Marks)  
b. Describe the RAID levels with reference to RAID 0, RAID 1, RAID 3, RAID 4, with supporting sketches. (10 Marks)
- 3 a. Explain the connectivity options of fiber channel architecture with supporting diagrams. (10 Marks)  
b. What is Direct-Attached Storage (DAS)? Explain internal and external DAS architectures with supporting sketches and discuss DAS benefits and limitations. (10 Marks)
- 4 a. Explain the components of NAS with supporting diagram. What are the benefits of NAS? (10 Marks)  
b. Distinguish between general-purpose servers and NAS devices. (03 Marks)  
c. List and explain the factors affecting NAS performance. (07 Marks)
- 5 a. List and explain any ten key features of CAS. (10 Marks)  
b. With the support of a neat diagram, explain in detail the block-level storage virtualization. (10 Marks)
- 6 a. Explain in detail five stages of BC planning life cycle with the supporting diagram. (10 Marks)  
b. Explain the backup operation with a neat diagram. (10 Marks)
- 7 a. Explain LVM-based replication, with a neat diagram. Discuss the advantages and limitations of LVM-based replications. (10 Marks)  
b. Explain storage Array-based remote replication. (10 Marks)
- 8 a. What is Risk triad, explain the key elements of the triad. (07 Marks)  
b. What is storage monitoring, list and explain the parameters used for monitoring further describe the components monitored. (07 Marks)  
c. Discuss the storage infrastructure management activities. (06 Marks)

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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.