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15CS754

Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019 Storage Area Networks

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is a data center? Explain key characteristics of data center elements with diagram. (08 Marks)
- b. What is a file system? Explain the process of mapping user files to the disk storage. (08 Marks)

OR

- 2 a. What is RAID? Explain the RAID levels with reference to nested RAID, RAID3, RAID5 with neat diagram. (08 Marks)
- b. With neat diagram, explain the structure of read and write operations with cache. (08 Marks)

Module-2

- 3 a. Explain FC connectivity options with relevant diagram. (08 Marks)
- b. Explain block-level storage virtualization with neat diagram. Explain VSAN in brief. (08 Marks)

OR

- 4 a. What is FCoE? Explain the components of FCoE with neat diagram. (08 Marks)
- b. What is NAS? Explain the benefits of NAS. (08 Marks)

Module-3

- 5 a. What is business continuity? Explain the BC Terminology in detail. (08 Marks)
- b. Explain Backup and Restore operations with neat diagram. (08 Marks)

OR

- 6 a. What is data deduplication? Explain the implementation of data deduplication. (08 Marks)
- b. Explain Synchronous + Asynchronous and Synchronous + Disk Buffered methods of three-site replication with neat diagram. (08 Marks)

Module-4

- 7 a. What is cloud computing? Explain the characteristics and benefits of cloud computing? (08 Marks)
- b. Explain the various cloud service models available. (08 Marks)

OR

- 8 a. Explain the public cloud and private cloud deployment models in cloud computing. (08 Marks)
- b. Explain the cloud computing infrastructure in detail. (08 Marks)

Module-5

- 9 a. Explain FC SAN security architecture with neat diagram. (08 Marks)
- b. Explain the concept of Kerberos with neat diagram. (08 Marks)

OR

- 10 a. Explain the storage management activities in detail. (08 Marks)
- b. Explain Information Lifecycle Management (ILM) in detail with challenges. (08 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.