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)**