CBCS Scheme

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16SCS/SSE153

First Semester M.Tech. Degree Examination, Dec.2016/Jan.2017
Advances in Storage Area Networks (ASAN)

Time: 3 hrs. Max. Marks: 80

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

Module-1

1 a. Distinguish between server centric IT architecture and storage centric IT architecture with neat diagrams. **(06 Marks)**

b. Explain the working of RAID1 implementation and RAID4 implementation, clearly bring out their important features with neat block schematic. **(10 Marks)**

OR

2 a. Explain the case study of "Replacing a server with storage networks". **(08 Marks)**

b. Explain the functions (features) of intelligent disk sub systems that are available on the market. **(08 Marks)**

Module-2

3 a. Explain SCSI protocol for devices to communicate with each other. **(08 Marks)**

b. Explain the fibre channel protocol stack. **(08 Marks)**

OR

4 a. Explain the NAS architecture and discuss the performance bottlenecks in file servers. **(08 Marks)**

b. What is file system? Explain the function of modern file system. **(08 Marks)**

Module-3

5 a. What is storage virtualization? Write the advantages and disadvantages of storage virtualization on the storage networks. **(08 Marks)**

b. Explain the 3 levels of virtualization entity that can be positioned in the storage network. **(08 Marks)**

OR

6 a. Explain briefly the general requirements and considerations for implementation of virtualization (implementation considerations). **(10 Marks)**

b. Explain briefly the symmetric storage virtualization. **(06 Marks)**

Module-4

7 a. Explain Fibre Channel(FC) switch and its different types of ports defined by FC switch. **(08 Marks)**

b. Explain basic function of Host Bus Adapter (HBA) and the benefits of using multiple HBA's on a host. **(08 Marks)**

OR

8 a. Explain the basic components of switch operating system, illustrate with a diagram. **(06 Marks)**

b. Discuss the major(software) components of SAN. **(06 Marks)**

c. Explain the configuration options for SAN. **(04 Marks)**

Module-5

9 a. Explain In-band management service in the storage network with a neat diagram. **(08 Marks)**

b. Explain SNMP architecture and its operations for the monitoring and configuration of managed devices. **(08 Marks)**

OR

10 a. Explain CIM and WBEM for the management of storage networks. **(08 Marks)**

b. Explain CMIP and DMI protocol standards for out band management. **(08 Marks)**

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