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Third Semester M.Tech. Degree Examination, Dec.2014/Jan.2015
Advances in Storage Area Networks

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Explain the case study of replacing a server with storage networks with a neat diagram. (10 Marks)
b. Explain the challenges of design applications. (05 Marks)
c. Explain problem size and problem access. (05 Marks)
- 2 a. Explain the four different internal I/O channels with a neat diagram. (10 Marks)
b. Explain JBOD, with diagram. (05 Marks)
c. Explain RAID 0 +1 with neat diagram. (05 Marks)
- 3 a. What is instant copy? Explain in brief with neat diagram. (05 Marks)
b. Discuss remote mirroring in detail. (10 Marks)
c. List different types of FC ports and explain it in brief. (05 Marks)
- 4 a. Which are the three different topologies in fibre channel standard? Explain with a neat diagram. (10 Marks)
b. Give the difference between FC and NAS. (05 Marks)
c. Discuss the case study GPFS in brief. (05 Marks)
- 5 a. Explain with neat diagram:
i) File systems and databases.
ii) Journaling.
iii) Snapshots.
iv) Volume manager. (10 Marks)
b. Explain performance bottlenecks in file servers. (10 Marks)
- 6 a. What are the advantage and disadvantage of virtualization on server level? (05 Marks)
b. Illustrate symmetric storage virtualization in the network with neat diagram. (10 Marks)
c. Explain storage virtualization in the network. (05 Marks)
- 7 a. What in the role of storage networking in business continuity? (05 Marks)
b. Which are the basic components of the Switch's operating system? (10 Marks)
c. Which supporting components that have become increasingly important to the SAN software? Explain in brief. (05 Marks)
- 8 a. Which are the systems management disciplines can be applied to any macro system in operation? (05 Marks)
b. Discuss on best practices for negotiating and determining service levels for internal IT co-workers and management. (05 Marks)
c. List and explain typical security elements that must be addressed by the any secure solution. (10 Marks)