VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD
M.Tech. I Year (CSE) I-Semester (Make Up) Examinations, March-2016

Information Storage Management

Time: 3 hours

Max. Marks: 70

Note: Answer ALL questions in Part-A and any FIVE questions from Part-B

Part-A (10 X 2=20 Marks)

1. Describe the role of Virtualization in Cloud Computing.

2. The average I/O size of an application is 64 KB. The following specifications are available from the disk manufacturer: average seek time = 5 ms, 7,200 RPM, and transfer rate = 40 MB/s. Determine the maximum IOPS that could be performed with this disk for the application. Using this case as an example, explain the relationship between disk utilization and IOPS.

3. Draw the schematic for illustrating FCIP topology.

4. Compare between the General-Purpose Servers and NAS Devices.

5. Specify the levels of taking a Backup in a storage environment.

6. Define the various modes of remote Replication.

7. Summarize the benefits of Cloud Computing.

8. Write in your words justifying that "Cloud computing bring in business agility."

9. Outline the three categories that constitute the Risk Triad.

10. What are Storage Infrastructure Management Challenges?

Part-B (5 X 10=50 Marks)

11. a) Describe the process of WRITE operation on a RAID 5. [4]

    b) Explain in detail the components and working of an Intelligent Storage System. [6]

12. a) List and explain the various ports used in a switched fabric. [5]

    b) Define zoning and explain the types of zoning employed in a Fabric. [5]

13. a) Define Data Deduplication and explain its implementation. [5]

    b) Explain the process of taking Backup in a SAN Environment. [5]

14. a) Explain various service models in a Cloud environment. [5]

    b) Evaluate the various cloud adoption considerations an organization need to justify, before migrating to a cloud environment. [5]

15. a) Discuss the various Storage Security Domains. [5]

    b) Explain few examples of monitoring within a storage infrastructure. [5]

16. a) Explain Virtual Storage Provisioning. [5]

    b) Explain in detail Components of an FCoE Network. [5]

17. Write short notes on any **two** of the following:

    a) Retrieval of Objects in Object Based Storage Devices [5]

    b) Cloud Computing Infrastructure. [5]

    c) Information Life Cycle Management. [5]

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