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MCA - 503**MCA V Semester**

Examination, December 2012

Information Storage and Management**Time : Three Hours****Maximum Marks : 70/100***Note : Attempt any five questions, one question from each unit.***UNIT - I**

- 1) a) Discuss the evaluation of various storage technology and architecture.
- b) Explain the parity technique.

OR

- 2) a) What is command queuing? What are various command queuing algorithms.
- b) Explain mirroring technique.

UNIT - II

- 3) a) Compare the different types of RAID.
- b) Discuss information lifecycle management with it's characteristics.

OR

- 4) a) Discuss the components of an intelligent storage system.
- b) Discuss the process of mapping user files to the disk storage subsystem.

UNIT - III

- 5) a) Consider a disk I/O system in which an I/O request arrives at the rate of 80 IOPS. The disk service time is 6ms. Compute the following:
 - i) Utilization of I/O controller
 - ii) Total response time
 - iii) Average queue size
 - iv) Total time spent by a request in a queue.
- b) Compute the preceding parameter if the service time is halved.

OR

- 6) a) Discuss the various SAN connectivity components.
- b) Discuss the various factors that affect NAS performance and availability.

UNIT - IV

- 7) a) What is data centre ? What are the requirements for the design of a secure data center?
- b) What do VLANs virtualize? Discuss VLAN implementation as a virtualization technology.

OR

- 8) a) Discuss the Scaaty concern in backup environment.
- b) Explain central center architecture.

UNIT - V

- 9) a) Explain the architectural framework of cloud.
- b) Discuss Encryption technology for protecting cloud data.

OR

10) Write short notes on :

1. The NIST model
2. Cloud cube model
3. Service models.