

BE12-R4: INFORMATION STORAGE AND MANAGEMENT

NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours

Total Marks: 100

1.

- a) What is a server SAN, and what are the major points of distinction between the server SAN and traditional forms of storage?
- b) Discuss Data Proliferation? List the problems associated with it?
- c) What are the strengths and weaknesses of each layer of RAID?
- d) How does industry manage their IT infrastructure using SNMP (Simple Network Management Protocol)?
- e) How does Information Life Cycle Management help to improve IT management?
- f) Explain the terms: Seek Time, and Data Transfer Rate.
- g) What are the Benefits and Limitations of Direct Attached Storage?

(7x4)

2.

- a) The FC standards define different Classes of Service to meet the requirements of a wide range of applications. What are those Classes of Services?
- b) What are the steps followed for hosting and accessing files stored on NAS (Network Attached Storage)?
- c) The NFS and CIFS protocols handle file I/O requests to a remote file system, which is managed by the NAS device. What are the steps followed by NAS I/O to access remote file system?

(6+6+6)

3.

- a) High level performance is one of the requirements of Business Critical applications. How does cache increase the performance of intelligent storage system?
- b) The demands on the enterprise storage capacity has grown rapidly in last decade with the advent of the Internet, Big Data, corporate intranets and many other real time applications. Explain how Storage Technology is evolved to meet the enterprise storage demand.
- c) High-end storage systems, referred to as active-active arrays, are generally aimed at large enterprises for centralizing corporate data. What are the capabilities of these arrays to fulfill enterprise needs?

(6+6+6)

4.

- a) List the salient properties of fiber channels. Explain IP SAN elements.
- b) Write down the various principles and techniques of Disaster Recovery.

(9+9)

5.

- a) What are the major applications of SAN? Explain each in detail.
- b) What are the key management metrics available for Storage System?

(9+9)

6.

- a) What are the major characteristics of CAS (Content Addressable Storage)?
- b) What are the advantages of having Logical Unit Number?
- c) Write down the SAN and NAS similarities and differences.

(6+6+6)

7.

- a) Write down the Factors Affecting NAS Performance and Availability challenges of managing information?
- b) How does RAID (Redundant Array of Inexpensive Disks) improve reliability of storage system?
- c) What is Logical Partitioning of Disks? Write down the benefits of creating logical partition of multiple disks.

(6+6+6)