BE12-R4: INFORMATION STORAGE & 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 are the challenges to develop information system with multiple disks?

b) What is logical unit number (LUN)? How can it be attached to intelligent storage system?

c) Core-edge fabric is one of the popular topology to connect devices. What are the Benefits and Limitations of Core-Edge Fabric?

d) Describe the term Hot Spare with respect to RAID. What are the ways to configure it?

e) What are the parameters need to be monitored in Information Storage System?

f) What is FLIP? Explain the issue related to Security and Performance of FLIP.

g) Describe the SCSI Command Model.

(7x4)

2.

a) A storage area network (SAN) carries data between servers (also known as hosts) and storage devices. What are the components of Storage Area Network?

b) Which are the factors that affect the Performance of Network Attached Storage (NAS)?

(9+9)

3.

a) What are the key management activities associated with Storage Infrastructure? What are the Challenges in Managing Information?

b) NAS uses File Sharing Protocol to support multiple file service protocol handle file I/O requests to a remote file system. Write in brief File Sharing Protocol used by NAS.

c) iSCSI is a protocol that leverage IP as the transport mechanism in SAN. Explain working of iSCSI protocol stack.

(6+6+6)

4.

a) The NAS environment includes clients accessing a NAS device over an IP network using standard protocols. What are the ways to implement NAS?

b) Information lifecycle management (ILM) is a proactive strategy that enables an IT organization to effectively manage the data throughout its lifecycle. What are the characteristics, activities and benefits of ILM?

(9+9)

5.

a) What are the benefits of Network-attached storage (NAS)?

b) High-end storage systems, referred to as *active-active arrays,* are generally aimed at large enterprises for centralizing corporate data. What are the characteristics of High-end storage System?

(8+10)

6.

a) RAID is one the best technique used to store data for the purpose of high availability. How does RAID 4 & 5 achieve high availability?

b) Which are the parameters that can increase Disk Performance? How can it increase performance in certain scenario?

(9+9)

7.

a) A business impact analysis (BIA) identifies and evaluates financial, operational and service impacts of a disruption to essential business processes. What are the tasks of BIA?

b) What are Software RAID and Hardware RAID? What are the limitations of Software RAID?

c) What must be the features of Storage Management Interface which help to manage Storage Area Network easily and efficiently?

(6+6+6)