

Sem - VIII (CBSE) 11 - 2011

QP Code : 721201

(3 Hours)

[ Total Marks : 80

- N.B. : (1) Question number 1 is **compulsory**.  
Out of remaining question solve any **three**
- (2) Draw figures wherever necessary .  
(3) Assume suitable data wherever necessary.

1. (a) Consider a disk I/O system in which an I/O request arrives at a rate of 100 I/O s per second. The disk service time is  $R_s = 8\text{ms}$ , Calculate the measures of disk performance 10
- (a) Utilization of I/O controller (U)  
(b) Total response time (R)  
(c) Average Queue size  
(d) Total time spent by a request in the queue
- Considering the same disk I/O system and calculate the above measures of the disk performance if the disk service time is halved i.e.  $R_s = 4\text{ms}$ .
- (b) Explain ILM and its benefits. How ILM can be implemented as a strategy for hospital managementsystem. 10
2. (a) Explain FC SAN topologies and FC protocol Stack 10  
(b) Explain IP storage standards.
3. (a) Explain the Architecture and implementation related limitations of storage virtualization. 10
- (b) Differentiate between symmetric and asymmetric storage virtualization and block level and file level storage virtualization. 10
4. (a) What is Information Availability and Information unavailability? Explain BC planning life cycle. 10  
(b) Explain Network data management protocol (NDMP). 10
- 5 (a) Define Information system. List out the components of an information systems. 10  
What is the difference between general purpose and specialized information systems?  
(b) Explain the Boolean based matching process in detail. 10
6. Write short notes on: (Any four) 20
- (a) Intelligent Storage system (b) Zoned bit recording  
(c) FC ports (d) Comparison of FC SAN, iSCSI, NAS.  
(e) Backup Operations  
(f) Document surrogates (g) Document term Matrices