

[Time: 3 Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B:
1. Question no. 1 is compulsory.
 2. Solve any three out of remaining.
 3. Draw figure wherever necessary.
 4. Assume suitable data wherever required.

- Q.1 a) Consider disk I/O system in which an I/O request arrives at a rate of 100 I/O per second. The disk service time is $R_s = 8\text{ms}$. Calculate the measure of disk performance. (10)
- i) Utilization of I/O controller (U)
 - ii) Total Response Time (R)
 - iii) Average Queue Size
 - iv) Total time spent by a request in the queue
- Consider the same disk I/O system and calculate the above measure of disk performance if the disk service time is halved i.e. $R_s = 4\text{ms}$.
- b) Show comparison of different RAID levels. (10)
- Q.2 a) Explain components of Intelligence Storage System (ISS) in detail. (10)
- b) Draw and explain BC planning life cycle in detail with example, define RTO and RPO. (10)
- Q.3 a) Explain storage security domain and its implementation in storage technology. (10)
- b) Explain NAS workload and mention characteristics of NAS. (10)
- Q.4 a) Explain availability plan and services in storage network. (10)
- b) Explain ILC for any applications of your choice. (10)
- Q.5 a) Explain SAN configuration in detail. (10)
- b) Explain Data Centre Infrastructure in detail with elements and functionality. (10)
- Q.6 a) Explain NAS components and protocol in detail. (10)
- b) Explain SAN Host Bus Adapter. (10)
