

Seat No.	
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T.E. (Computer Science & Engineering) (Part - III) (Semester - VI)
Examination, May - 2019

STORAGE NETWORKS (New)

Sub. Code : 66861

Day and Date : Tuesday, 21 - 05 - 2019

Total Marks : 100

Time : 10.00 a.m. to 01.00 p.m.

- Instructions :**
- 1) Question No.4 and 8 is compulsory.
 - 2) Attempt any two questions from question no. 1, 2 and 3.
 - 3) Attempt any two questions from question no. 5, 6 and 7.
 - 4) Figures to the right indicate full marks.

- Q1) a)** Explain different Components of Storage System Environment. [8]
b) Consider a disk I/O system in which an I/O request arrives at the rate of 100 IOPS. The disk service time is 8ms. Compute the following: [8]
 i) Utilization of I/O controller
 ii) Response Time
 iii) Average Queue Size
 iv) Total time spent by a request in a queue
- Q2) a)** Explain FC-1:8b/10b encoding, ordered sets and link control protocol. [8]
b) Explain iSCSI Discovery and iSCSI Names. [8]
- Q3) a)** Explain the different components of NAS. [8]
b) List and Explain factors affecting NAS Performance and Availability. [8]
- Q4) Write a short note on (Any Three) :** [3 × 6 = 18]
 a) Disk Drive Interfaces in DAS
 b) Hot Spares
 c) SAN Evolution
 d) NAS File-Sharing Protocols

P.T.O.

- Q5) a)** Explain Asymmetric storage virtualization with advantages and disadvantages. [8]
b) Explain Storage virtualization on Block Level and File Level. [8]
- Q6) a)** Explain Information Availability in detail. [8]
b) Explain Backup and Restore operations with suitable diagram. [8]
- Q7) a)** Explain Storage Array-based Replication. [8]
b) Explain Restore and Restart Considerations. [8]
- Q8) Write a short note on (Any Three) :** [3 × 6 = 18]
a) Storage virtualization and its objectives
b) BC Technology Solutions
c) BC Planning Lifecycle
d) Uses of Local Replicas

