SV - 209

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Seat No.	

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

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