

Register Number:

Date: 10-03-2022

|  |  |  |
| --- | --- | --- |
| **ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27** | | |
| **MSc – III SEMESTER** | | |
| **SEMESTER EXAMINATION: OCTOBER 2021**  **(To be conducted in Jan-March 2022)** | | |
| **CS DE 9418 - Data Storage Technologies** | | |
| **Time- 2 1/2 hrs.** |  | **Max Marks-70** |

**This question paper contains 1 page and 1 section.**

**Answer any SEVEN of the following questions: (10marks\*7=70)**

1. A) Explain the core elements of a data center. [5]

B) Explain Physical disk structure in detail. [5]

2. A) Explain file system in detail. [6]

B) What is Disk native command queuing? [4]

1. How is disk reliability addressed in RAID levels? Give a comparative analysis

of RAID 4 and RAID 5 in terms of read efficiency, write efficiency, fault tolerance

and usable capacity. [10]

4. Explain cache implementation and cache management of Intelligent Storage System

in detail. [10]

5. A) Illustrate FC connectivity in detail. [7]

B) State and define the types of Switched Fabric ports. [3]

6. A) What does the FCoE technology use to overcome its lossy nature of transmission? [7]

B) Compare General purpose servers versus NAS Devices [3]

7. A) Describe iSCSI topology in detail. [8]

B) What benefit File level virtualization offers? [2]

8. What are the different NAS implementations? Explain with diagrams. [10]

9. A) Briefly describe the key management principles in detail. [7]

B) How a Local business continuity techniques differ from Remote business

continuity techniques? [3]