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| 13CS4202 | - | STORAGE AREA NETWORKS |

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| Hours / Week | : | 4 |  | Sessional Marks | : | 40 |
| Credits | : | 4 |  | End Examination Marks | : | 60 |

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| **UNIT - I** |
| **What Storage Networking Is and What It Can Mean to You**: What is SAN, Why Connect Storage to a Network, The Secret to SANs’ Success: Software, The Best Is Yet to Come: Radical Changes in Information, Storage and Processing, Back to Earth, A Couple of Closing Clarifications. **What to Expect from SANs**: The SAN Paradigm Shift, A Model for Enterprise Information Processing, Ten Ways the SAN Paradigm Shift Changes Information Processing for the Better. |
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| **UNIT – II** |
| **Leading Up to SANs**: One View of Data Center Evolution; **Killer Apps for SANs**: Backup—The Application Everyone Loves to Hate, Highly Available Data, Disaster Recoverability, Clusters—Continuous Computing, Data Replication, The Bottom Line: Continuous Global Access to Timely Information. |
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| **UNIT – III** |
| **Storage Networking Architecture**: The Path from Data to Application, Network Storage Systems. The **Storage in Storage Networking**: Challenges for Network Storage, The Cost of Online Storage, Making SAN Storage Perform, Keeping SAN Storage Up and Working, Choosing among Storage Options. |
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| **UNIT – IV** |
| **Basic Software for Storage Networking**: Software for SANs, Shared Access Data Managers, Computer System I/O Performance, Volumes: Resilience, Performance, and Flexibility, File Systems and Application Performance. **Advanced Software for Storage Networking**: Data Replication, Types of Data Replication, Different Types of Data Replication, Synchronous and Asynchronous Replication, Using Data Replication. |
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| **UNIT – V** |
| **Clusters**: The Processing in Data Processing, Cluster Data Models, Disaster Recovery and Global Clusters, Clusters and Storage Area Networks. **Enterprise Backup Software for Storage Area Networks**: Backup Management for SANs, Enterprise Data Protection, Enterprise Backup Architecture, Enterprise Backup Policies, Minimizing the Impact of Backup |
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| TEXT BOOKS |
| 1. Storage Area Network Essentials - A Complete Guide to Understanding and Implementing SANs by Richard Barker and Paul Massiglia, Wiley, 2002
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| REFERENCE BOOKS |
| 1. Introduction to Storage Area Networks and System Networking by Jon Tate et.al., IBM Red Books.
2. SAN - The Network for Storage, a paper by Ashish Chaturvedi, Tata Consultancy Services.
3. Using SANs and NAS By W.Curtis Preston, Mike Loukides.
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