

# GUJARAT TECHNOLOGICAL UNIVERSITY

**Subject Name: Storage Area Network**  
**Subject Code: 3725105**

**Semester: II**

**Type of course:** M.E. Computer Engineering (IT systems and Network Security)

**Prerequisite:** Basic Knowledge of Information Security and Operating System Management  
Cloud computing,  
Data Center

**Rationale:** NA

**Teaching and Examination Scheme:**

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
3	2#	0	4	70	30	30	20	150

**Content:**

Sr. No.	Content	Total Hrs	% Weightage
1	Configuring a SAN,	4	8
2	Using SAN for high availability,	4	8
3	IP-Based Storage Communication,	4	8
4	Introduction to Data center Clusters,	4	8
5	Cluster Architecture,	4	8
6	Cluster Requirements,	4	8
7	Designing cluster-friendly Applications Disaster recovery,	4	8
8	Case studies-I	4	8

**Reference Books:**

1. - **Storage Area Network Essentials:** A Complete Guide to Understanding and Implementating sans by Richard Barker, Paul Massiglia, Wiley India Pvt Ltd
2. **Storage Networks:** The Complete Reference by Robert Spalding, Tata Mcgraw Hill Education Private Limited

**Course Outcome:**

After learning the course the students should be able to:

- Data Management , and Storage Management
- Manage Server Systems and Data Centres Infrastructure Management
- Utilize the Storage, Bandwidth, Efficiency of systems and other resources for Data centre.

- Monitoring the Networks and Resources.
- Planning for Flexible resource allocation.

**List of Experiments: (with Open Ended Problems)**

- Case Studies-I
- Case Studies-II

**Major Equipment:**

- VMWare-Workstation
- Linux (Kali/Fedora/BT5/centOS)
- Windows Server 2008/2012

**List of Open Source Software/learning website:**

- ISO 20001-7
- HIPAA
- CMM Levels
- PCI DSS
- [www.pcisecuritystandards.org/security\\_standards](http://www.pcisecuritystandards.org/security_standards)
- [www.hipaa.com](http://www.hipaa.com)
- [www.iso.org](http://www.iso.org)

**Review Presentation (RP):** The concerned faculty member shall provide the list of peer reviewed Journals and Tier-I and Tier-II Conferences relating to the subject (or relating to the area of thesis for seminar) to the students in the beginning of the semester. The same list will be uploaded on GTU website during the first two weeks of the start of the semester. Every student or a group of students shall critically study 2 papers, integrate the details and make presentation in the last two weeks of the semester. The GTU marks entry portal will allow entry of marks only after uploading of the best 3 presentations. A unique id number will be generated only after uploading the presentations. Thereafter the entry of marks will be allowed. The best 3 presentations of each college will be uploaded on GTU website