

SARDAR PATEL UNIVERSITY
Programme: B.Sc (Electronics & Communication)
Semester: VI
Syllabus with effect from: November/December-2013

Paper Code: US06CELC06	Total Credit: 3
Title Of Paper: Network Infrastructure Management	

Unit	Description in detail	Weighting (%)
I	Introduction, Applications Topology, Common bus, Star, ring, fully connected, combined topology, OSI model and its various layers, TCP/IP model, Connection Protocols, collision detection, Token Passing,	
II	Design objective, Understanding the networking environment, fundamental design principles, requirement analysis of proposed network infrastructure, network managements components, technologies.	
III	Hubs, bridges, repeaters, multiplexers, routers, brouters, gateways, CSU/DSU structural cabling: network topology and network media, coaxial cable, twisted pair, fiber, wireless, satellite, TIA/EIA structural cabling standards.	
IV	Security strategy, design and implementation, Security tools: Packet filtering, Encryption, Virtual Private Network, Intrusion Detection System, Password management, firewall policies architecture and functioning.	

Basic Text & Reference Books:-

- A guide to designing and Implementing : Michael Palmer, Robert Bruce
- Data Communication and Networking - B.A.Forouzan
- Understanding data communication and networking: W.A.Shay
- Computer Networks – A.S.Tannenbaum

