COURSE CODE:	**IGIT– 401-CR8**
COURSE TITLE:	**COMPUTER NETWORKS**
CREDITS	**4+2 = 06**

Unit I

Goals and applications of networks. LAN, MAN & WAN architectures. Concept of WAN subnet. Overview of existing networks. OSI Reference Model Architecture, TCP/IP Model and
their comparison. Addressing (Physical, Logical, Port). Connecting Devices (Hub, Repeater, Bridge, Router, Gateway)

Unit II

Concept of Wired LAN-Ethernet and Wireless LAN (802.11), Internetworking concept and architectural model. Connection-oriented and connection-less approaches. Classful vs Class less IP addresses. Concept of Sub-netting, Internet Protocol (version 4 and 6), Transition from IPv4 to IPv6

Unit III

Network Layer Protocols –Address Mapping (ARP, RARP and DHCP), ICMP (version 4 and 6), Routing Protocols-Inter and Intra Domain

Unit IV

Transport Layer Protocols-TCP and UDP, Congestion Control (Open loop, closed loop), Quality of Service (Characteristics and classes), Techniques to improve QoS.

Reference Books:

1.William Stallings, ”Data and Computer Communications”, Pearson Education
2.AndrewTanenbaum, ”Computer Networks”, Pearson Education 4/e.
3. Ulysses Black, “Principles of Data Communications “, PHI.
4. Morley, Gelber, “The Emerging Digital Future”, Addison-Wesley.
5. Behrouz A Fouran“ Data Communication and Networking”