Branch: BCA	Semester-V
Subject Code: 5101	Lecture: 04 Credit: 04
Subject Title	DATA COMMUNICATION AND NETWORKING

Modules	Sr. No.	Topic and Details	No of Lectures Assigned	Marks Weight age %
UNIT-I	1	Fundamentals of communication Ways of communication.	5	10
	2	Analog / Digital Transmission, Synchronous/ Asynchronous Transmission,	5	10
	3	Modulation Techniques (AM, FM, PM, Pulse), Shift keying, Encoding techniques	5	10
UNIT-II	4	Transmission Media (Twisted pair, Coax Cable, Optical fiber, Wireless media(terrestrial, microwave, satellite)	5	10
	5	Transmission medium impairments, Multiplexing (TDM,TDMA,FDM)	5	10
	6	Channel Allocation-Static,Dynamic, Switching techniques (Circuit, Message, Packet, Hybrid)	5	10
UNIT-III	7	Fundamentals of Networking, Transporting digital information- framing, sequencing, packaging, reassembling .	5	10
	8	Network Models – Layered approach with concepts of ISO OSI RM, TCP/IP	5	10
UNIT-IV	9	Network issues – framing, error control, flow control, routing with various algorithms, congestion control Types of services – connection and reliability.	5	10
	10	Concepts of collisions- Slots, carrier sense, Medium Access Protocols- Aloha, Slotted Aloha, CSMA, CSMA/CD	5	10
		Total	50	100

Text Book:
   1. W. Stallings "Data and Computer Communications", 7th Edition, Prentice Hall, 2004
References:
   1. Forouzan, "Data Communication and Networking," 3rd Edition, McGraw Hill, 2003
   2. A.S.Tannenbaum,"Computer Networks", 4th edition Printice Hall of India