

**ELECTIVE COURSE II – 3-COMPUTER NETWORKS AND INTERNETS**

**Objective:** *In this course students shall learn the basis of various protocol layers that stack up to enable computers to interlink and work in the internet environment.*

**UNIT-I**

Basics of Internet applications – Network programming – Transmission media – RS232 communication – Long distance communication – Packets, Frames and Error detection.

**UNIT-II**

Lan technology and network topology – Addressing and Framing – LAN wiring – WAN technology – Connection oriented networking.

**UNIT-III**

Protocols and layering – Internetworking – IP, ARP protocol.

**UNIT-IV**

ICMP, UDP, TCP protocols – Internet routing

**UNIT-V**

Client-Server interaction – Socket interface –Example of Client and server – IP telephony (VOIP)

**TEXT BOOK:**

1. **Douglas E. Comer**, Computer networks and Internets, Pearson education, 2004, ISBN 81-7758-749-8 [**Unit-1** :(Chapters 1,2,3,4,5,6,7); **Unit-2** : (Chapters 8,9,10,13, 14); **Unit-3** (Chapters 16,17,18,19); **Unit-4** (Chapters 23,24,25, 27); **Unit-5** (Chapters 28,29,30,33)]