KIIT UNIVERSITY
Bhubaneswar

LESSON- PLAN

School of Computer Engineering

Academic Session:2019 **Semester: 6th**

Subject code: IT-3001 **Subject Name: Computer Networks**

Module no. & Name.	Topics/Coverage	No. of lectures	Lectures serial nos.
Introduction	1. Overview of internet 2. Packet and circuit switching 3. Protocol Layering 4. TCP/IP Protocol Suite 5. OSI Model 6. Delay and throughput in Packet-switched Network.	**4**	**1-4**
Application Layer	1. Client Server Paradigm 2. Web and HTTP 3. FTP and E-mail 4. DNS 5. P2P Networks: BitTorrent	**6**	**5-10**
Transport Layer	1. Introduction 2. Transport Layer services 3. Flow Control in Transport Layer • stop-and-wait • Go-back-N • Selective-Repeat 4. UDP • Services • Applications 5. TCP • Services • Features • Segment • TCP Connection • State Transition Diagram • Windows in TCP • Flow Control • Congestion Control	**14**	**11-24**
Network Layer	1. Introduction and services 2. Virtual circuit and datagram networks 3. IPv4 datagram format 4. IPv4 addressing 5. DHCP 6. ICMP 7. NAT 8. Routing Algorithms • Link state	**15**	**25-39**

	• Distance vector • Hierarchical routing 9. Routing in Internet • RIP • OSPF • BGP		
Link-layer	1. Introduction and services 2. Error detection and correction techniques 3. Multiple access protocols 4. Link-Layer Addressing 5. ARP 6. Ethernet Frame format 7. GIGABIT Ethernet 8. Link Layer Switching & VLANs	**9**	**40-48**

Text Book:

1. COMPUTER NETWORKS: A Top-Down Approach by Behrouz A Forouzan, Firouz Mosharraf

Reference Book:

1. Computer Networks 5th edition by Tannenbaum
2. Computer networks An Open source approach by Ying-Dar Lin
3. Computer Networks A systems approach by Peterson and Daive
4. A top-down approach by Kurose and Ross

Signature