VIKASH INSTITUTE OF TECHNOLOGY, BARGARH

LESSON PLAN

Semester:4th		**Year: 2nd**	**Course: B.Tech**
Branch : CSE		**Sub:COMPTER NETWORK** **Sub Code :CSPC2007**	**Total Credit:03**
Name of the Faculty:		**ALINA KUMARI SWAIN**	
Designation :		**Assistant professor**	
Department :		**CSE**	
Session		**2024-25**	
Recommended Books		**Text book**: **A. S. Tanenbaum (2003), Computer Networks, 4th edition, Pearson Education/ PHI, New Delhi, India.2** **Behrouz A. Forouzan (2006), Data communication and Networking, 4th Edition, Mc Graw-Hill, India.** **Reference Books**: **James F. Kurose, K. W. Ross, "Computer Networking: A Top-Down Approach Featuring the Internet", Pearson Education** **An Engineering Approach to Computer Networks-S. Keshav, 2nd Edition, Pearson Education**	
Sl. No.	**Lecture No.**	**Topics to be covered**	**No. of Classes**
		MODULE-1	
1	Lecture-01	Introduction to Networks: Network hardware	**8**
2	Lecture-02	Network software	
3	Lecture-03	OSI	
4	Lecture-04	TCP/IP Reference models	
5	Lecture-05	, Example Networks: ARPANET, Internet	
6	Lecture-06	Physical Layer: Data and signals: analog and digital	
7	Lecture-07	periodic analog signals, digital signals, transmission impairments, data rate limit,	
8	Lecture-08	Guided transmission media twisted pairs, coaxial cable, fiber optics, Wireless transmission, unguided transmission media.	
		MODULE-2	
9	Lecture-09	Data Link Layer: Design issues, framing, Error detection and correction, CRC codes	**10**
10	Lecture-10	data link protocols: simplex protocol, A simplex stop and wait protocol for an error-free channel, A simplex stop and wait protocol for noisy channel.	
11	Lecture-11	Sliding Window protocols: A one-bit sliding window protocol,	
12	Lecture-12	A protocol using Go-Back-N, A protocol using Selective Repeat, Example data link protocols.	
13	Lecture-13	A protocol using Go-Back-N, A protocol using Selective Repeat, Example data link protocols.	
14	Lecture-14	Medium Access sub layer: The channel allocation problem	
15	Lecture-15	Multiple access protocols: ALOHA,	
16	Lecture-16	Carrier sense multiple access protocols, collision free protocols	
17	Lecture-17	. Wireless LANs	
18	Lecture-18	Data link layer switching.	

	MODULE-3		
19	Lecture-19	Connecting devices: Learning bridge	**9**
20	Lecture-20	spanning tree bridges, repeaters	
21	Lecture-21	hubs, bridges, switches, routers and gateways, definition of multiplexing and types.	
22	Lecture-22	Network Layer	
23	Lecture-23	Design issues, Routing algorithms	
24	Lecture-24	shortest path routing, Flooding, Hierarchical routing, Broadcast	
25	Lecture-25	Multicast, distance vector routing, link state protocols	
26	Lecture-26	path vector routing	
27	Lecture-27	Congestion Control Algorithms, Quality of Service	
	MODULE-4		
28	Lecture-28	Internetworking: logical addressing	**8**
29	Lecture-29	internet protocols, IP address	
30	Lecture-30	CIDR, IPv4 addressing, IPv6 Protocol addressing	
31	Lecture-31	addresses mapping, ICMP, IGMP, ARP, RARP, DHCP	
32	Lecture-32	Transport Protocols: process to process delivery	
33	Lecture-33	UDP, TCP, TCP	
34	Lecture-34	TCP Sliding Window, TCP Congestion Control	
35	Lecture-35	congestion control and quality of service	
	MODULE-5		
36	Lecture-36	Application Layer- Introduction	**5**
37	Lecture-37	providing services, Client server model	
38	Lecture-38	Standard client-server application	
39	Lecture-39	HTTP, FTP, electronic mail	
40	Lecture-40	TELNET, DNS	

Signature of Faculty Member **Signature of HOD**

PRINCIPAL