

NM Institute Of Engineering and Technology, Bhubaneswar

DEPARTMENT:CSE

LESSON PLAN: Academic Year 2023-24 (Even Semester)

COURSE: DIPLOMA

SEMESTER: 4th

Subject/Code: DATA COMMUNICATION & COMPUTER NETWORK

Faculty Name: Rajashree Sukla

Sl. No.	Name of the Topic to Cover	Text Book	Teaching Method	Course Progress	Remark
1	1. Introduction to Network & Protocol	T1	P		
2	Data Communication	T3	G		
3	Networks	T2	P		
4	Protocol & Architecture, Standards	T2	G		
5	OSI model	T2	G		
6	TCP/IP	T3	G		
7	2. Introduction to Data Transmission & Media	T2	P		
8	Data transmission Concepts and Terminology	T1	G		
9	Analog and Digital Data transmission	T1	G		
10	Transmission impairments, Channel capacity	T3	P		
11	Transmission media	T1	G		
12	Guided Transmission	T2	P		
13	Wireless Transmission	T3	G		
14	Revision	T2	G		
15	3. Introduction to Data Encoding	T2	G		
16	Data encoding,	T1	G		
17	Digital data digital signals,	T3	P		
18	Digital data analog signals	T1	G		
19	Analog data digital signals	T3	G		
20	Analog data analog signals	T2	G		
21	Quiz – 1	T3	G		
22	4. Introduction to Data Communication & Data link control	T2	P		
23	Asynchronous and Synchronous Transmission	T3	G		
24	Error Detection	T2	G		
25	Line configuration	T1	G		
26	Flow Control	T1	G		
27	Error Control	T2	P		
28	Discussion about control system	T2	P		
29	Multiplexing	T1	G		
30	Continuing Multiplexing	T3	G		
31	FDM synchronous TDM	T2	G		

32	Continuing FDM synchronous TDM	T1	G		
33	Statistical TDM	T3	G		
34	Revision	T3	P		
35	5. Introduction to Switching & Routing	T2	P		
36	Circuit Switching networks	T1	G		
37	Packet Switching principles	T3	G		
38	X.25	T3	G		
39	Routing in Packet switching	T3	P		
40	Congestion	T2	P		
41	Effects of congestion	T1	G		
42	congestion control	T2	G		
43	Traffic Management	T3	G		
44	Congestion Control in Packet Switching Network.	T1	G		
45	Revision	T2	P		
46	6. Introduction to LAN Technology	T1	P		
47	Topology and Transmission Media	T3	G		
48	LAN protocol architecture	T3	P		
49	Medium Access control	T2	P		
50	Bridges, Hub, Switch	T1	G		
51	Ethernet (CSMA/CD), Fiber Channel	T2	P		
52	Wireless LAN Technology.	T1	P		
53	Revision	T2	G		
54	Quiz - 2	T1	P		
55	7. Introduction to TCP/IP	T2	P		
56	TCP/IP Protocol Suite	T1	G		
57	Basic Protocol functions	T3	P		
58	Principles of Internetworking	T1	P		
59	Internet Protocol operations	T1	G		
60	Internet Protocol	T2	G		
			Method of Teaching		
			G: Green Board Teaching		
			P: Power Point Teaching		
Faculty Signature					
At the end of this course, students will be able to:					
• Know the concepts of Data Communication, networking, protocols, and networking models					
• Know the various transmission Medias• Understand the concepts of switching					
• Understand various Error detection and correction methods• Know about data flow and error control					
• Know about data link control• Understand multiple access					
• Learn the concepts of wired LANs and Ethernet• Compare various connecting devices					
• Know the concepts of network layer, logical addressing, IP, Forwarding and routing• Understand brief concept on TCP/IP					
TEXT BOOKS:					

W.Stallings Data Communication & Computer Networks PHI		
M.Bhatia Introduction to Comp. Network Univ. S. Press		
Forouzan Data Communication & Network TMH		