NM Institute Of Engineering and Technology, Bhubaneswar

DEPARTMENT:CSE

LESSON PLAN: Academic Year 2022-23 (Even Semester) COURSE: DIPLOMA SEMESTER: 4TH

Subject/Code: DATA COMMUNICATION & COMPUTER NETWORK/Th-2 Faculty Name: Mr. JITENDRA SAHU

Sl. No.	Name of the Topic to Cover	Text Book	Teaching Method	Course Progress	Remark
1	Introduction to data communication	T1	P	100 %	
2	computer networks	T2	G	100 %	
3	Protocol	T2	P	99 %	
4	Layering Scenario	T3	G	100 %	
5	TCP/IP Protocol Suite: The OSI Model	T1	G	99 %	
6	Internet history	R1	G	99 %	
7	standards and administration	T2	G	100 %	
8	Comparison of the OSI and TCP/IP reference model	R1	G	100 %	
9	Data transmission concepts and terminology	T1	G	100 %	
10	Analog and digital data transmission	T2	P	98 %	
11	Transmission impairements	R1	G	100 %	
12	Transmission media, Types	T1	P	99 %	
13	Data encoding	T2	G	99 %	
14	Digital data , digital signals	T3	G	100 %	
15	Digital data analog signals	T1	G	100 %	
16	Analog data analog signals	T2	G	100 %	
17	Analog data digital signals	T2	P	100 %	
18	Asynchronous data transmission	T1	G	100 %	
19	Synchronous data transmission	R1	G	100 %	
20	Error detection	R2	G	99 %	
21	Flow control and Error control	R1	G	99 %	
22	Multiplexing	T3	P	100 %	
23	Circuit switching networks	T2	G	100 %	
24	Packet switching networks	T1	G	100 %	
25	switches, routers and gateways	T3	G	99 %	
26	X.25	T2	G	99 %	
27	Routing protocols: Shortest Path, Routing uni-cast Distance Vector Routing	T2	P	100 %	
28	connection less and connection oriented	T1	P	100 %	
29	circuit and packet switching, definition of flooding and multicast	T2	G	100 %	
30	Congestion control and quality of service	T1	G	99 %	
31	Topology	T2	G	99 %	
32	Types of Topology	T2	G	98 %	
33	Advantages and Disadvantages	T3	G	98 %	
34	LAN protocol architecture	R1	P	99 %	
35	Connecting devices: learning bridges	R1	P	100 %	

36	Router	T2	G	100%	
37	Switches	T3	G	100%	
38	Gateways	T3	G	99%	
39	Hub	T2	P	98%	
40	Bridge	R1	P	98%	
41	Medium acess control	T3	G	99%	
42	CSMA/CD	T2	G	100%	
43	ICMP	R1	G	98%	
44	IGMP,	T2	G	98%	
45	ARP	T1	G	99%	
46	Wired LAN technology	T2	G	99%	
47	Transport Protocols	T1	G	98%	
48	process to process delivery	T2	G	99%	
49	UDP	T2	P	100%	
50	TCP	T3	G	100%	
51	TCP Service Model	R1	G	99%	
52	TCP Sliding Window,	R1	G	99%	
53	TCP Congestion Control	T2	G	100%	
54	congestion control and quality of service	T3	G	98%	
55	Internet protocol operations	T3	G	99%	
56	Client server model,	T3	P	98%	
57	Standard client-server application-HTTP	R1	G	99%	
58	Electronic mail	R1	G	100%	
59	FTP	T3	G	100%	
60	TELNET & DNS	R1	P	100%	

Method of Teaching	
G: Green Board Teaching	
P: Power Point Teaching	

Faculty Signature T. Tamaloo Sahu

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 concept of switching
Compare various connecting devises
Know the concept of network layer, logicaladdressing ,IP, forwaeding and routing
Understand brief concept onTCP/IP

TEXT BOOKS:
Behrouz A. Forouzan, "Data Communications and Networking", McGraw Hill Publication
Andrew S Tanenbaum, "Computer Networks", Pearson Education
L. L. Peterson and B. S. Davie, "Computer Networks", Elsevier

REFERENCE BOOKS:
Behrouz A. Forouzan, "Data Communications and Networking", McGraw Hill Publication