BLACK DIAMOND SCHOOL OF ENGINEERING, JHARSUGUDA

LESSON PLAN
Session (2022-2023)

Discipline: Computer Science and Engineering	Semester: 4th, S/2023	Name of the faculty: JUGESH BESAN	
Subject: Data Communication & Computer Network, Theory-2	No. of Days/week: 04	Start Date: 13/02/2023 End Date: 23/05/2023	

Week	Class Day	Theory Topics
1st	1st	**1. Introduction to Network & Protocol**
	2nd	Data Communication
	3rd	Networks
	4th	Protocol & Architecture, Standards
2nd	1st	OSI model
	2nd	TCP/IP
	3rd	**2. Introduction to Data Transmission & Media**
	4th	Data transmission Concepts and Terminology
3rd	1st	Analog and Digital Data transmission
	2nd	Transmission impairments, Channel capacity
	3rd	Transmission media
	4th	Guided Transmission
4th	1st	Wireless Transmission
	2nd	Revision
	3rd	**3. Introduction to Data Encoding**
	4th	Data encoding,
5th	1st	Digital data digital signals,
	2nd	Digital data analog signals
	3rd	Analog data digital signals
	4th	Analog data analog signals
6th	1st	Quiz – 1
	2nd	**4. Introduction to Data Communication & Data link control**
	3rd	Asynchronous and Synchronous Transmission
	4th	Error Detection
7th	1st	Line configuration
	2nd	Flow Control
	3rd	Error Control
	4th	Discussion about control system
8th	1st	Multiplexing

	2nd	Continuing Multiplexing
	3rd	FDM synchronous TDM
	4th	Continuing FDM synchronous TDM
9th	1st	Statistical TDM
	2nd	Revision
	3rd	**5. Introduction to Switching & Routing**
	4th	Circuit Switching networks
10th	1st	Packet Switching principles
	2nd	X.25
	3rd	Routing in Packet switching
	4th	Congestion
11th	1st	Effects of congestion
	2nd	congestion control
	3rd	Traffic Management
	4th	Congestion Control in Packet Switching Network.
12th	1st	Revision
	2nd	**6. Introduction to LAN Technology**
	3rd	Topology and Transmission Media
	4th	LAN protocol architecture
13th	1st	Medium Access control
	2nd	Bridges, Hub, Switch
	3rd	Ethernet (CSMA/CD), Fiber Channel
	4th	Wireless LAN Technology.
14th	1st	Revision
	2nd	Quiz - 2
	3rd	**7. Introduction to TCP/IP**
	4th	TCP/IP Protocol Suite
15th	1st	Basic Protocol functions
	2nd	Principles of Internetworking
	3rd	Internet Protocol operations
	4th	Internet Protocol