SESSION PLANNING –

Name of Subject Teacher/s		**Prof. Dhaval sathawara**			**Name of Institute**	**Ganpat University-Institute of Computer Technology**	
Name of Department		**Computer Science & Engineering**			**Name of Programme**	B. Tech. in Computer Science & Engineering (CBA/CS/BDA)	**Semester : II**
Name of the Course / Subject with code		**Basics of communication system(2CSE202)**					
Total Credit	**4**	**Theory**	**3**	**Practical**	**1 (2 Hrs)**	**No. of hrs. to be spent out of classroom though out the semester i.e. Industry visit, field work, etc. : _____** (Later, a separate sheet to be attached with all details of learning out comes, no. of students, place visited, assignment given, etc.)	
List of reference books/resources be appended separately.*							

Sr. No.	Date	Duration of Session	Delivered by	Topic / Chapter	Content be delivered	Learning outcome of session	Teaching Mode / Method etc. **
1		55 Minutes	Prof. Dhaval sathawara	Chapter 1:- Introduction :	Data Communications, Data Representation	Difference between data, information, kind of data representation	PPT + Board
2		55 Minutes	Prof. Dhaval sathawara		Data Flow, Distributed Processing	Types of data flow	PPT + Board
3		55 Minutes	Prof. Dhaval sathawara		Networks, Network Criteria, Physical Structures	Information of network formation, topology	PPT + Board
4		55 Minutes	Prof. Dhaval sathawara		Network Models Categories of Networks	How networks are categorized	PPT + Board
5		55 Minutes	Prof. Dhaval sathawara		Intranet, The Internet Protocols and Standards	Difference between intranet and internet	PPT + Board
6		55 Minutes	Prof. Dhaval sathawara		Components of computer network (Repeater, Hub, Switch)	Understanding of networking devices	PPT + Board
7		55 Minutes	Prof. Dhaval sathawara		Components of computer network (Bridge, Router, Gateway)	Working of networking devices	PPT + Board
8		55 Minutes	Prof. Dhaval sathawara	Chapter 2:- Network Models	Layered Tasks Sender, Receiver and Carrier Hierarchy	Layered architecture	PPT + Board
9		55 Minutes	Prof. Dhaval sathawara		Layers in the OSI Model	Introduction to OSI and its layered Structure	PPT + Board
10		55 Minutes	Prof. Dhaval		Layers in the OSI Model	Working of each OSI layer	PPT + Board
11		55 Minutes	Prof. Dhaval		TCP/IP Protocol suit	Understanding of TCP/IP	PPT + Board
12		55 Minutes	Prof. Dhaval		TCP/IP Protocol suit	OSI vs TCP/IP	PPT + Board

13		55 Minutes	Prof. Dhaval sathawara		Addressing – Physical, Logical, Port and Specific Addresses Data	IP addressing	PPT + Board
14		55 Minutes	Prof. Dhaval sathawara	Chapter 3:- Basics of IP Addressing	IPv4 address types	IP addressing	PPT + Board
15		55 Minutes	Prof. Dhaval sathawara		IP addressing schemes (Class full and classless IP Addressing)	Types of IP addressing schemes	PPT + Board
16		55 Minutes	Prof. Dhaval sathawara		Subnetting (subnet mask, network address, broadcast address) IP Configuration	Subnetting and how subnets are formed How IP can be configured	PPT + Board
17		55 Minutes	Prof. Dhaval sathawara	Chapter 4:- Data and Signals	Signals Analog and Digital Signals, Periodic and Non-Periodic Signals	Types of signals	PPT + Board
18		55 Minutes	Prof. Dhaval sathawara		Sine Wave, Phase, Wavelength, Time and Frequency Domains,	Wavelength	PPT + Board
19		55 Minutes	Prof. Dhaval sathawara		Composite Signals, Bandwidth, Bit Rate, Bit Length	Different parameters	PPT + Board
20		55 Minutes	Prof. Dhaval sathawara		Transmission of Digital Signals, Transmission Impairment	How signals can be transmitted	PPT + Board
21		55 Minutes	Prof. Dhaval sathawara		Data Rate Limits	Data rate limits	PPT + Board
22		55 Minutes	Prof. Dhaval sathawara		Performance – Bandwidth, Throughput,	Throughput calculations	PPT + Board
23		55 Minutes	Prof. Dhaval sathawara		Delay Product, Jitter Latency, Bandwidth	Different parameters	PPT + Board
24		55 Minutes	Prof. Dhaval	Chapter 5:- Analog Transmission	Digital-to-Analog Conversion	Conversion	PPT + Board
25		55 Minutes	Prof. Dhaval sathawara		Frequency Shift Keying Phase Shift Keying	Different modulation techniques	PPT + Board
26		55 Minutes	Prof. Dhaval sathawara		Quadrature Amplitude Modulation	Different modulation techniques	PPT + Board
27		55 Minutes	Prof. Dhaval sathawara		Analog-to-Analog Conversion Amplitude Modulation	Different modulation techniques	PPT + Board
28		55 Minutes	Prof. Dhaval sathawara		Frequency Modulation Phase Modulation	Frequency and Phase modulation techniques	PPT + Board
29		55 Minutes	Prof. Dhaval sathawara	Chapter 6:- Digital transmission	Digital-to-Digital Conversion Line Coding	Digital conversion Line coding	PPT + Board
30		55 Minutes	Prof. Dhaval sathawara		Line Coding Schemes, block encoding and scrambling	Line coding block encoding and	PPT + Board
31		55 Minutes	Prof. Dhaval sathawara		Analog-to-Digital Conversion PCM & DM	PCM & DM	PPT + Board

32		55 Minutes	Prof. Dhaval sathawara	Chapter 7:- Bandwidth Utilization: Multiplexing and Spreading	Frequency-Division Multiplexing, Wavelength-Division Multiplexing	Multiplexing techniques	PPT + Board
33		55 Minutes	Prof. Dhaval		Synchronous and Statistical Time-Division	Multiplexing techniques	PPT + Board
34		55 Minutes	Prof. Dhaval sathawara		Spread Spectrum (FHSS, DSSS)	Spread Spectrum	PPT + Board
35		55 Minutes	Prof. Dhaval sathawara	Chapter 8:- Transmission Media	Guided Media – Twisted Pair, Coaxial	Physical media	PPT + Board
36		55 Minutes	Prof. Dhaval sathawara		Fibre-Optic Cable	Physical media	PPT + Board
37		55 Minutes	Prof. Dhaval sathawara		Unguided Media – Radio Waves Micro Waves and Infrared	Radio wave propagation Micro waves	PPT + Board
38		55 Minutes	Prof. Dhaval sathawara		Revision – Doubt solving session	Revision – Doubt solving session	PPT + Board
39		55 Minutes	Prof. Dhaval sathawara		Revision – Doubt solving session	Revision – Doubt solving session	PPT + Board
40		55 Minutes	Prof. Dhaval sathawara		Revision – Doubt solving session	Revision – Doubt solving session	PPT + Board

Evaluation scheme:

Theory

Component:	**Weightage:**
1. University Exam:	60
2. Mid Semester Exam:	20
3. Continuous internal evaluation:	
i. Attendance* /Quiz	10
ii. Assignment	10

Theory

Component:	**Weightage:**
1. University Exam:	20
2. Mid Semester Exam:	10
3. Continuous internal evaluation:	
i. practical File	15
ii. Assignment	05