

Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory -3, ANALOG & DIGITAL COMMUNICATION

Semester & Branch : 5TH SEM, ETC Engineering

Total Periods-75

Name of the faculty : MRS. SWETANJALI NAYAK

No of periods /week-5

WEEK	CLASS DAY	THEORY
1ST	1ST	CONCEPT OF ELEMENTS OF COMMUNICATION SYSTEM & ITS BLOCK DIAGRAM
	2ND	SOURCE OF INFORMATION & COMMUNICATION CHANNELS
	3RD	CLASSIFICATION OF COMMUNICATION SYSTEMS
	4TH	MODULATION PROCESS, NEED OF MODULATION, CLASSIFY MODULATION PROCESS
	5TH	ANALOG AND DIGITAL SIGNALS & ITS CONVERSION
2ND	1ST	BASIC CONCEPT OF SIGNALS
	2ND	BANDWIDTH LIMITATION
	3RD	AMPLITUDE MODULATION & DERIVE THE EXPRESSION FOR AM SIGNAL
	4TH	POWER RELATION IN AM WAVE & FIND MODULATION INDEX
	5TH	GENERATION OF AM
3RD	1ST	LINEAR DIODE DETECTOR, SQUARE LAW DETECTOR
	2ND	PLL
	3RD	SSB SIGNAL & DSSB SIGNAL
	4TH	METHOD OF GENERATING & DETECTING SSB-SC SIGNAL
	5TH	RING MODULATOR, SYNCHRONOUS DETECTION
4TH	1ST	CONCEPT OF BALANCED MODULATORS
	2ND	VESTIGIAL SIDE BAND MODULATION
	3RD	ANGLE MODULATION & ITS TYPE
	4TH	BASIC PRINCIPLE OF FM & FREQUENCY SPECTRUM OF FM SIGNAL
	5TH	EXPRESSION FOR FREQUENCY MODULATED SIGNAL
5TH	1ST	MODULATION INDEX & SIDEBAND OF FM SIGNAL
	2ND	EXPLAIN PHASE MODULATION
	3RD	DIFFERENCE OF FM & PM
	4TH	COMPARE BETWEEN AM AND FM MODULATION
	5TH	METHOD OF FM GENERATION WORKING PRINCIPLE WITH BLOCK DIAGRAM
6TH	1ST	FM DEMODULATOR (FORSTER SEELY) WORKING PRINCIPLE WITH BLOCK DIAGRAM
	2ND	FM DEMODULATOR (RATIO DETECTOR) WORKING PRINCIPLE WITH BLOCK DIAGRAM
	3RD	CLASSIFICATION OF RADIO RECEIVERS
	4TH	DEFINE THE TERMS SELECTIVITY, SENSITIVITY
	5TH	DEFINE THE TERMS FIDELITY, NOISE FIGURE
7TH	1ST	WORKING PRINCIPLE WITH BLOCK DIAGRAM OF AM TRANSMITTER
	2ND	CONCEPT OF FREQUENCY CONVERSION
	3RD	RF AMPLIFIER, IF AMPLIFIER
	4TH	TUNING, S/N RATIO
	5TH	WORKING PRINCIPLE WITH BLOCK DIAGRAM OF SUPER HETERODYNE RADIO RECEIVER
8TH	1ST	WORKING PRINCIPLE WITH BLOCK DIAGRAM FM TRANSMITTER
	2ND	WORKING PRINCIPLE WITH BLOCK DIAGRAM FM RECEIVER
	3RD	CONCEPT OF SAMPLING THEOREM, NYQUIST RATE & ALIASING
	4TH	SAMPLING TECHNIQUES
	5TH	SAMPLING TECHNIQUES
9TH	1ST	GENERATION AND DETECTION OF PAM
	2ND	GENERATION AND DETECTION OF PWM
	3RD	GENERATION AND DETECTION OF PPM
	4TH	COMPARISON BETWEEN PAM, PWM, PPM
	5TH	QUANTIZATION OF SIGNAL
10TH	1ST	QUANTIZATION ERROR

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	2ND	GENERATION OF PCM SYSTEM
	3RD	DEMODULATION OF PCM SYSTEM,APPLICATION OF PCM
	4TH	COMPANDING IN PCM,VOCODER
	5TH	OPERATION WITH CIRCUIT DIAGRAM OF TDM
11TH	1ST	GENERATION OF DELTA MODULATION
	2ND	DEMODULATION OF DELTA MODULATION
	3RD	GENERATION OF DPCM
	4TH	DEMODULATION OF DPCM
	5TH	COMPARISION BETWEEN PCM,DM,ADM,DPCM
12TH	1ST	CONCPT OF FDM AND TDM
	2ND	ADVANTAGES OF DIGITAL COMMUNICATION SYSTEM OVER ANALOG SYSTEM
	3RD	DIGITAL MODULATION TECHNIQUES & TYPES
	4TH	GENERATION AND DETECTION OF ASK
	5TH	GENERATION AND DETECTION OF FSK
13TH	1ST	GENERATION AND DETECTION OF PSK
	2ND	GENERATION AND DETECTION OF QPSK
	3RD	GENERATION AND DETECTION OF QAM
	4TH	GENERATION AND DETECTION OF MSK
	5TH	GENERATION AND DETECTION OF GMSK
14TH	1ST	WORKING OF T-1 CARRIER SYSTEM
	2ND	SPREAD SPECTRUM & ITS APPLICATION
	3RD	WORKING PRINCIPLE OF DS-SS & FH-SS
	4TH	DEFINE BIT,BAUD,SYMBOL,CHANNEL CAPACITY FORMULA
	5TH	APPLICATION OF DIFFERENT MODULATION SCHEMES
15TH	1ST	TYPES OF MODEM & ITS APPLICATION
	2ND	OBJECTIVE TYPES QUESTION DISCUSSION
	3RD	EXAM PATTERN QUESTION DISCUSSION
	4TH	PRACTICE TEST
	5TH	MOCK TEST EXAM PATTERN

Sign of Faculty

Sign of HOD