Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory -2,Analog Electronics & OPAMP

Semester & Branch : 4th Sem Electrical Engineering **Total Periods-60**

Name of the faculty : Swetanjali Nayak **No of periods /week-4**

WEEK	CLASS DAY	THEORY
1ST	1ST	PN JUNCTION DIODE
	2ND	WORKING OF DIODE
	3RD	VI CHARACTERISTICS OF PN JUNCTION DIODE
	4TH	DC LOAD LINE, IDEAL DIODE, KNEE VOLAGE
2ND	1ST	ZENER BREAKDOWN, AVALANCHE BREAKDOWN
	2ND	PN DIODE CLIPPING CIRCUIT & CLAMPING CIRCUIT
	3RD	THERMISTORS
	4TH	SENSORS, BARRTTERS
		ZENER DIODE
3RD	1ST	TUNNEL DIODE
	2ND	PIN DIODE
	3RD	CLASSIFICTION OF RECTIFIERS
	4TH	HALF WAVE RECTIFIER, FULL WAVE RECTIFIER, BRIDGE RECTIFIER ANALYSIS
4TH	1ST	DC OUTPUT CURRENT AND VOLTAGE OF RECTIFIERS
	2ND	RMS OUTPUT CURRENT AND VOLTAGE OF ALL RECTIFIERS
	3RD	RECTIFIER EFFICIENCY
	4TH	RIPPLE FACTOR, REGULATION, TUF, PIV
5TH	1ST	CHOKE INPUT FILTER & PI FILTER
	2ND	PRINCIPLE OF BIPOLAR JUNCTION TRANSISTOR
	3RD	MODES OF OPERATION OF TRANSISTOR
	4TH	CURRENT COMPONENTS IN A TRANSISTOR
6TH	1ST	TRANSISTOR AS AN AMPLIFIER
	2ND	CB CONFIGURATION
	3RD	CE & CC CONFIGURATION
	4TH	TRANSISTOR CIRCUITS- TRANSISTOR BISING
7TH	1ST	STABILIZATION & STABILITY FACTOR
	2ND	METHODS OF TRANSISTOR BIASING- BASE RESISTOR METHOD
	3RD	COLLETOR TO BASE BIAS
	4TH	SELF BIAS OR VOLTAGE DIVIDER METHOD
8TH	1ST	TRANSITOR AMPLIFIERS & OSCILLATORS- PRACTICAL CIRCUIT OF TRANSITOR AMPLIFIER
	2ND	DC LOAD LINE & DC EQUIVALENT CIRCUIT
	3RD	AC LOAD LINE & AC EQUIVALENT CIRCUIT
	4TH	CALCULATION OF GAIN
9TH	1ST	PHASE REVERSL
	2ND	H-PARAMETERS OF TRANSISTORS
	3RD	SIMPLIFIED H-PARAMETERS OF TRANSISTORS
	4TH	GENERALIZE APPROXIMATE MODEL
10TH	1ST	ANALYSIS OF CB, CE, CC AMPLFIER
	2ND	RC COUPLED AMPLIFIER & TRANSFORMER COUPLED AMPLIFIER
	3RD	FEEDBACK IN AMPLIFIER, NEGATIVE FEEDBACK CIRCUIT & ITS ADVANTAGES
	4TH	POWER AMPLIFIER AND ITS APPLICATION, DIFFERENCE BETWEEN VOLTAGE AMPLIFIER & POWER AMPLIFIER
11TH	1ST	TRANSFORMER COUPLED CLASS-A AMPLIFIER
	2ND	CLASS-A & CLASS -B PUSH-PULL AMPLIFIER
	3RD	OSCILLATORS-TYPES OF OSCILLATORS, EESENTIALS OF TRANSISTOR OSCILLATORS
	4TH	PRINCIPLES OF OPERATION OF TUNED COLLECTOR, HARTLEY
12TH	1ST	COLPITT, PHASE SHIFT, WEIN-BRIDGE OSCILLATOR
	2ND	CLASSIFICATION OF FET, ADVANTAGES OF FET OVER BJT
	3RD	PRINCIPLE OF OPERATION OF BJT
	4TH	FET PARAMETERS-DC DRAIN RESISTANCE, AC DRAIN RESISTANCE, TRANS-CONDUCTANCE
13TH	1ST	BIASING OF FET
	2ND	GENERAL CIRCUIT OF OP-AMP, IC-CA-741 OPAMP

Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory -2,Analog Electronics & OPAMP

Semester & Branch : 4th Sem Electrical Engineering **Total Periods-60**

Name of the faculty : Swetanjali Nayak **No of periods /week-4**

	3RD	OPERTIONAL AMPLIFIER STAGES, EQUIVALENT CIRCUIT OF OP-AMP
	4TH	OPEN LOOP OP-AMP CONFIGURATION, OPAMP WITH FEEDBACK
14TH	1ST	INVERTING OP-AMP, NON INVERTING OP-AMP
	2ND	VOTAGE FOLLOWER, BUFFER
	3RD	DIFFERENTIAL AMPLIFIER- ADDER OR SUMMING AMPLIFIER
	4TH	SUBSTRACTOR, INTEGRATOR
15TH	1ST	DIFFERENTIATOR, COMPARATOR
	2ND	OBJCTIVE TYPE QUESTION DISCUSSION
	3RD	SEMESTER PATTERN QUESTION DISCUSSION
	4TH	PRACTICE TEST

(SIGNATURE OF FACULTY) **(SIGNATURE OF HOD**