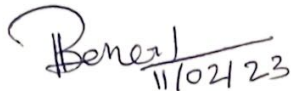


ACADEMIC SESSION : 2022-2023 (Summer-2023)

Discipline : Electrical	Semester : 4th	Name of the Teaching Faculty : Tilu Behera (Lecturer in Electronics)	
Subject : Analog Electronics and OP-AMP	No. of days / week class allotted	Semester From date: 14/02/2023 to 23.05.2023	No. of Period
Chapter	Class Day	Theory/ Practical Topics	Theory
CHAPTER 1 PN-JUNCTION DIODE	15/02/2023	P-N Junction Diode	1
	16/02/2023	Working of Diode	1
	20/02/2023	V-I characteristic of PN junction Diode..	1
	22/02/2023	DC load line	1
	23/02/2023	Important terms such as Ideal Diode, Knee voltage	1
	25/02/2023	Junctions break down.	1
	27/02/2023	P-N Diode clipping Circuit.	1
	01/03/2023	P-N Diode clamping Circuit	1
CHAPTER 2 SPECIAL SEMICONDUCTOR DEVICES	02/03/2023	Thermistors, Sensors & barretters	1
	04/03/2023	Zener Diode	1
	06/03/2023	Tunnel Diode	1
	09/03/2023	PIN Diode	1
CHAPTER 3 RECTIFIER CIRCUITS & FILTERS	11/03/2023	Classification of rectifiers	1
	13/03/2023	Analysis of half wave, full wave centre tapped and Bridge rectifiers	1
	15/03/2023	DC output current and voltage	1
	16/03/2023	RMS output current and voltage	1
	18/03/2023	Rectifier efficiency, Ripple factor	1
	20/03/2023	Regulation, Transformer utilization factor, Peak inverse voltage	1
	22/03/2023	Shunt capacitor filter , Choke input filter , π filter	1
CHAPTER 4 TRANSISTORS	23/03/2023	Principle of Bipolar junction transistor	1
	25/03/2023	Different modes of operation of transistor	1
	27/03/2023	Current components in a transistor	1
	29/03/2023	Transistor as an amplifier	1
	03/04/2023	Transistor circuit configuration & its characteristics	1
	05/04/2023	CB Configuration , CE Configuration , CC Configuration	1

<u>CHAPTER 5</u> TRANSISTOR CIRCUITS	06/04/2023	Transistor biasing	1
	08/04/2023	Stabilization	1
	10/04/2023	Stability factor	1
	12/04/2023	Different method of Transistors Biasing	1
	13/04/2023	Base resistor method, Collector to base bias , Self bias or voltage divider method	1
<u>CHAPTER 6</u> TRANSISTOR AMPLIFIERS & OSCILLATORS	15/04/2023	Practical circuit of transistor amplifier	1
	17/04/2023	DC load line and DC equivalent circuit	1
	19/04/2023	AC load line and AC equivalent circuit	1
	20/04/2023	Calculation of gain ,Phase reversal	1
	22/04/2023	H-parameters of transistors	1
	24/04/2023	Simplified H-parameters of transistors	1
	26/04/2023	Generalized approximate model	1
	27/04/2023	Analysis of CB, CE, CC amplifier using generalized approximate model	1
	29/04/2023	Computation of Gain margin and phase margin.	1
	01/05/2023	Multi stage transistor amplifier , R.C. coupled amplifier , Transformer coupled amplifier	1
	03/05/2023	Feed back in amplifier , General theory of feed back	1
	04/05/2023	Negative feedback circuit , Advantage of negative feed back	1
	06/05/2023	Power amplifier and its classification	1
	08/05/2023	Difference between voltage amplifier and power amplifier	1
	10/05/2023	Transformer coupled class A power amplifier , Class A push – pull amplifier , Class B push – pull amplifier	1
	11/05/2023	Oscillators , Types of oscillators , Essentials of transistor oscillator	1
	13/05/2023	Principle of operation of tuned collector, Hartley, colpitt, phase shift, wein-bridge oscillator	1
<u>CHAPTER 7</u> FIELD EFFECT TRANSISTOR	15/05/2023	Classification of FET ,Advantages of FET over BJT , Principle of operation of BJT	1
	17/05/2023	FET parameters , drain resistance , AC drain resistance , Trans-conductance	1
	18/05/2023	Biasing of FET	1
<u>CHAPTER 8</u> OPERATIONAL AMPLIFIERS	20/05/2023	General circuit simple of OP-AMP and IC – CA – 741 OP AMP	1
	22/05/2023	Operational amplifier stages , Equivalent circuit of operational amplifier	1
	23/05/2023	Open loop OP-AMP configuration , OPAMP with fed back	1

	24/05/2023	Inverting OP-AMP , Non inverting OP-AMP	1
	25/05/2023	Voltage follower & buffer	1
	26/05/2023	Adder or summing amplifier , Sub tractor , Integrator , Differentiator , Comparator	1
Total Number of Classes			56


11/04/23

Prepared by
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11/04/23
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