

LESSON PLAN

Discipline: MECHANICAL ENGG.	Semester: 1ST	Name of the Teaching Faculty: PARTHA SARATHI MALLICK
Subject: BASIC ELECTRONICS ENGG. (Th-4b)	No. of days/ per week class allotted: 2	Semester From Date : 25/10/2022 to Date: 20/02/2023 No. of Weeks: 15
Week	Class Day	Theory/ Practical Topics
1st	1st	ELECTRONIC DEVICES : Basic Concept of Electronics and its application
	2nd	Basic Concept of Electron Emission & its types.
2nd	1st	Classification of material according to electrical conductivity (Conductor, Semiconductor & Insulator) with respect to energy band diagram only.
	2nd	Difference between Intrinsic & Extrinsic Semiconductor.
3rd	1st	Difference between vacuum tube & semiconductor.
	2nd	Principle of working and use of PN junction diode.
4th	1st	Zener diode and Light Emitting Diode (LED)
	2nd	Integrated circuits (I.C) & its advantages.
5th	1st	ELECTRONIC CIRCUITS : Rectifier & its uses.
	2nd	Principles of working of different types of Rectifiers with their merits and demerits
6th	1st	Functions of filters and classification of simple Filter circuit (Capacitor, choke input and π)
	2nd	Working of D.C power supply system (unregulated) with help of block diagrams only
7th	1st	Transistor, Different types of Transistor Configuration and state output and input current gain relationship in CE, CB and CC configuration(No mathematical derivation)

	2nd	Need of biasing and explain different types of biasing with circuit diagram.(only CE configuration)
8th	1st	Amplifiers(concept) , working principles of single phase CE amplifier
	2nd	Electronic Oscillator and its classification
9th	1st	Working of Basic Oscillator with different elements through simple Block Diagram
	2nd	COMMUNICATION SYSTEM : Basic communication system (concept & explanation with help of Block diagram)
10th	1st	Concept of Modulation and Demodulation, Difference between them
	2nd	Different types of Modulation (AM, FM & PM) based on signal, carrier wave and modulated wave (only concept, No mathematical Derivation)
11th	1st	TRANSDUCERS AND MEASURING INSTRUMENTS : Concept of Transducer and sensor with their differences.
	2nd	Different type of Transducers & concept of active and passive transducer.
12th	1st	Working principle of photo emissive transducer and its application.
	2nd	Working principle of photoconductive transducer and its application.
13th	1st	Working principle of photovoltaic transducer and its application.
	2nd	Multimeter and its applications
14th	1st	Analog and Digital Multimeter and their differences
	2nd	Working principle of Multimeter with Basic Block diagram
15th	1st	CRO, working principle of CRO with simple Block diagram
	2nd	CRO, working principle of CRO with simple Block diagram

Pothalavathi Mallice