

LESSON PLAN

Discipline: ETC	Semester: 1 st	Name Of The Teaching Faculty: Manorama Bhuyan
Subject: Basic Electronics (Th 4)	No. Of Days Per Week Class Allotted: 03P (02 Lectures+01 Tutorial)	Semester From Date: 25.10.2022 To Date: 31.01.2023 No. of weeks: 15
Week	Class Day	Theory Topic
1 st week	1 st	<u>UNIT 1: ELECTRONIC DEVICES</u> ➤ 1.1: Basic concept of electronics
	2 nd	➤ 1.2: Electron emission and different types
	3 rd	➤ TUTORIAL
2 nd week	1 st	➤ 1.3: Classification of material according to electrical conductivity(conductor, semiconductor & insulator)with respect to energy band diagram
	2 nd	➤ 1.4:Intrinsic & Extrinsic semiconductor
	3 rd	➤ TUTORIAL
3 rd week	1 st	➤ 1.5: Difference between vacuum tube & semiconductor
	2 nd	➤ 1.6:Principle Of working & use Of PN Junction diode, Zener diode , Light Emitting Diode, Crystal diode & Bipolar Junction Transistor(BJT)
	3 rd	➤ TUTORIAL
4 th week	1 st	➤ 1.6:Principle Of working & use Of PN Junction diode, Zener diode , Light Emitting Diode, Crystal diode & Bipolar Junction Transistor(BJT)
	2 nd	➤ 1.7:Basic concept of manufacturing Integrated Circuits (IC) & its uses
	3 rd	➤ TUTORIAL
5 th week	1 st	<u>UNIT 2: ELECTRONIC CIRCUITS</u> ➤ 2.1: Define rectifier & its uses
	2 nd	➤ 2.2: Principles of working of different types of rectifiers & their merit & demerit
	3 rd	➤ TUTORIAL
6 th week	1 st	➤ 2.3: Function of filters & classification of their characteristics
	2 nd	➤ 2.4: DC power supply system with the help of block diagram only
	3 rd	➤ TUTORIAL
7 th week	1 st	➤ 2.5: Different types of transistor configuration and state input and output current gain relationship in CB,CE,& CC configuration
	2 nd	➤ 2.6: Need of biasing and different types of biasing with circuit diagram(CE configuration)
	3 rd	➤ TUTORIAL
8 th week	1 st	➤ 2.7: Amplifier & how amplification of signal is achieved by the help of transistor

8 th week	2 nd	➤ 2.8: Working of a single phase RC coupled amplifier and discuss its frequency response gain verses band width relationship
	3 rd	➤ TUTORIAL
9 th week	1 st	➤ 2.9: Basic function oscillator
	2 nd	➤ 2.10: Essential of transistor oscillator and its classifications
	3 rd	➤ TUTORIAL
10 th week	1 st	<u>UNIT 3: COMMUNICATION SYSTEM</u> ➤ 3.1: Basic Communication System With Help Of Block Diagram ➤ 3.2: modulation
	2 nd	➤ 3.3: Need of modulation ➤ 3.4: Different types of modulation(AM,FM,PM)
	3 rd	➤ TUTORIAL
11 th week	1 st	➤ 3.5: Amplitude modulation & frequency modulation ➤ 3.6: Demodulation
	2 nd	➤ 3.7: Working of super heterodyne radio receiver ➤ 3.8: Block diagram of radio transmitter & receiver
	3 rd	➤ TUTORIAL
12 th week	1 st	<u>UNIT 4: TRANSDUCERS & MEASURING INSTRUMENTS</u> ➤ 4.1: Concept Of Transducer & Primary Sensor
	2 nd	➤ 4.2: Different types of transducers and concept of active and passive transducer
	3 rd	➤ TUTORIAL
13 th week	1 st	➤ 4.3: Mechanical primary transducers, devices , springs & bourden tube diagram
	2 nd	➤ 4.4: Working principle & application of LVDT
	3 rd	➤ TUTORIAL
14 th week	1 st	➤ 4.5: Working principle of photo emissive, photo conductive, photovoltaic transducer & its application
	2 nd	➤ 4.6:Multimeter ,types & application
	3 rd	➤ TUTORIAL
15 th week	1 st	➤ 4.7: CRO: block diagram of CRO & applications of CRO
	2 nd	➤ 4.8: Basic concept of automatic control system
	3 rd	➤ TUTORIAL