

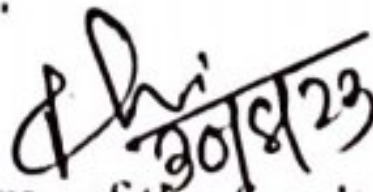


**SYNERGY SCHOOL OF ENGINEERING**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**

<b>Discipline :EE/ME</b>	<b>Semester:- 1<sup>st</sup> sem</b>	<b>Name of the teaching faculty:- PRAJNAPARAMITA KABI</b>
<b>Subject:- basic electronics</b>	<b>No. of Days/week class Allotted:-2</b>	<b>No. of weeks:-15</b>  <b>SESSION-2023-2024 WINTER</b>
<b>No. of week</b>	<b>No. of class</b>	<b>Topic to be Taught</b>
<b>1</b>	1 <sup>st</sup>	<b>Introduction class</b>
	2 <sup>nd</sup>	Basic Concept of Electronics
<b>2</b>	1 <sup>st</sup>	Electron Emission & different types
	2 <sup>nd</sup>	Classification of material according to electrical conductivity
<b>3</b>	1 <sup>st</sup>	Conductor, Semiconductor & Insulator) with respect to energy band diagram only
	2 <sup>nd</sup>	Intrinsic & Extrinsic Semiconductor
<b>4</b>	1 <sup>st</sup>	Difference between vacuum tube & semiconductor.
	2 <sup>nd</sup>	Principle of working and use of PN junction diode, Zener diode and Led
<b>5</b>	1 <sup>st</sup>	Basic concept of manufacturing integrated circuits (I.C) & its uses.
	2 <sup>nd</sup>	Define Rectifier & its use
<b>6</b>	1 <sup>st</sup>	Principles of working of different types of Rectifiers and their merits and demerits
	2 <sup>nd</sup>	Functions of filters and classification of filter characteristics
<b>7</b>	1 <sup>st</sup>	D.C power supply system with help of block diagrams
	2 <sup>nd</sup>	Different types of Transistor Configuration and state output and input current gain relationship in CE,CB and CC configuration
<b>8</b>	1 <sup>st</sup>	Need of biasing and different types of biasing with circuit diagram.(CE configuration
	2 <sup>nd</sup>	Amplifiers and how amplification of signal is achieved by the help of transisto
<b>9</b>	1 <sup>st</sup>	Working of a single phase RC coupled Amplifier and discuss its frequency response and gain verses bandwidth relationship
	2 <sup>nd</sup>	Basic function of Oscillation
<b>10</b>	1 <sup>st</sup>	Essentials of Transistor oscillators and its classifications
	2 <sup>nd</sup>	Basic communication system with help of Block diagram Modulation
<b>11</b>	1 <sup>st</sup>	Different types of Modulation (AM, FM & PM)
	2 <sup>nd</sup>	Working of Super heterodyne Radio Receiver



12	1 <sup>st</sup>	Block diagram of Radio Transmitter & Receiver
	2 <sup>nd</sup>	Concept of Transducer and Primary sensor
13	1 <sup>st</sup>	Different type of Transducers & concept of active and 34passive transducer
	2 <sup>nd</sup>	Mechanical primary transducers, devices, springs and Bourden tube diaphr3agm
14	1 <sup>st</sup>	Working principle and application of LVDT
	2 <sup>nd</sup>	Working principle of photo emissive, photoconductive, photovoltaic transducer and its application
15	1 <sup>st</sup>	Multimeter, types and applications
	2 <sup>nd</sup>	CRO , Block diagram of CRO and applications of CRO.
	3 <sup>rd</sup>	Basic concept of automatic control system

  
Signature of the faculty

  
HOD,EE