

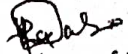


**ACADEMIC LESSON PLAN FOR SUMMER SEMESTER - 2022**  
**DEPT. OF ELECTRONICS & TELECOMMUNICATION, GOVT. POLYTECHNIC, BALASORE**  
**NAME OF THE FACULTY: PRAKASH CHANDRA DAS**  
**TH-4B : BASIC ELECTRONICS**

<b>DISCIPLINE:</b> ELECTRICAL ENGINEERING	<b>SEMESTER:</b> 2 <sup>ND</sup>	<b>NAME OF THE TEACHING FACULTY:</b> PRAKASH CHANDRA DAS
<b>SUBJECT:</b> BASIC ELECTRONICS	<b>NO. OF DAYS/PER WEEK CLASS ALLOTTED:</b> 2	<b>SEMESTER FROM DATE: TO DATE:</b> <b>NO. OF WEEKS:</b> 15
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	<b>1. ELECTRONIC DEVICES</b> 1.1 Define Electronics & its application. Define Electronic Emission & different types of Emission.
	2 <sup>ND</sup>	1.3 Classification of Solid according to electrical conductivity (Conductor, Semiconductor & Insulator) with respect to energy band diagram only.
2 <sup>ND</sup>	1 <sup>ST</sup>	1.4 Difference between Intrinsic & Extrinsic Semiconductor.
	2 <sup>ND</sup>	1.5 Difference between vacuum tube & semiconductor.
3 <sup>RD</sup>	1 <sup>ST</sup>	1.6 Principle of working and use of PN junction diode
	2 <sup>ND</sup>	1.6 Zener diode
4 <sup>TH</sup>	1 <sup>ST</sup>	1.6 Light Emitting Diode (LED)
	2 <sup>ND</sup>	1.7 Integrated circuits (I.C) & its advantages.
5 <sup>TH</sup>	1 <sup>ST</sup>	<b>2. ELECTRONIC CIRCUITS</b> 2.1 Rectifier & its uses. 2.2 Principles of working of different types of Rectifiers with their merits and demerits
	2 <sup>ND</sup>	2.2 Principles of working of different types of Rectifiers with their merits and demerits
6 <sup>TH</sup>	1 <sup>ST</sup>	2.3 Functions of filters and classification of simple Filter circuit (Capacitor, choke input and $\pi$ )
	2 <sup>ND</sup>	2.4 Working of D.C power supply system (unregulated) with help of block diagrams only
7 <sup>TH</sup>	1 <sup>ST</sup>	2.5 Transistor, Different types of Transistor Configuration and state output and input current gain relationship in CE, CB and CC configuration.
	2 <sup>ND</sup>	2.5 Transistor, Different types of Transistor Configuration and state output and input current gain relationship in CE, CB and CC configuration.
8 <sup>TH</sup>	1 <sup>ST</sup>	2.6 Need of biasing and explain different types of biasing with circuit diagram. (only CE configuration)
	2 <sup>ND</sup>	2.7 Amplifiers (concept), working principles of single phase CE amplifier
9 <sup>TH</sup>	1 <sup>ST</sup>	2.8 Electronic Oscillator and its classification 2.9 Working of Basic Oscillator with different elements through simple Block diagram
	2 <sup>ND</sup>	<b>3. COMMUNICATION SYSTEM</b> 3.1 Basic communication system
10 <sup>TH</sup>	1 <sup>ST</sup>	3.2 Concept of Modulation and Demodulation, Difference



	2 <sup>ND</sup>	3.3 Different types of Modulation (AM, FM & PM) based on signal, carrier wave and modulated wave (only concept, No mathematical Derivation)
12 <sup>TH</sup>	1 <sup>ST</sup>	<b>4. TRANSDUCERS AND MEASURING INSTRUMENTS</b> 4.1 Concept of Transducer and sensor with their differences.
	2 <sup>ND</sup>	4.2 Different type of Transducers & concept of active and passive transducer.
13 <sup>TH</sup>	1 <sup>ST</sup>	4.3 Working principle of photo emissive, photoconductive, photovoltaic transducer and its application
	2 <sup>ND</sup>	4.3 Working principle of photo emissive, photoconductive, photovoltaic transducer and its application
14 <sup>TH</sup>	1 <sup>ST</sup>	4.4 Multimeter and its applications
	2 <sup>ND</sup>	4.5 Analog and Digital Multimeter and their differences
14 <sup>th</sup>	1 <sup>ST</sup>	4.6 Working principle of Multimeter with Basic Block diagram
	2 <sup>ND</sup>	4.6 Working principle of Multimeter with Basic Block diagram
15 <sup>TH</sup>	1 <sup>ST</sup>	4.7 CRO, working principle of CRO with simple Block diagram
	2 <sup>ND</sup>	4.7 CRO, working principle of CRO with simple Block diagram

  
 Signature of Faculty