

**UTKALMANI GOPABANDHU INSTITUTE OF**  
**ENGINEERING, ROURKELA**



**LESSON PLAN**

**SESSION: 2022-2023**

**DEPARTMENT OF ELECTRONICS AND**  
**TELECOMMUNICATION ENGINEERING**

**SUBJECT CODE: Th.4(B)**

**SUBJECT NAME: BASIC ELECTRONICS ENGINEERING**

**SEMESTER: DIPLOMA 1<sup>ST</sup> SEM**

**NUMBER OF CLASSES ALLOTTED PER WEEK: 02**

**TOTAL PERIODS ALLOTTED TO THE SUBJECT  
ACCORDING TO SCTEVT: 30**

**NAME OF FACULTY: KAMALAKANTA NATH**

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**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING**

**SUBJECT CODE: TH4 (B)**

**SUJECT NAME: BASIC ELECTRONICS ENGINEERING**

**BRANCH: ELECTRONIS AND TELECOMMUNICATION ENGG.**

**SEMESTER: DIPLOMA -I**

**PERIODS PER WEEK: 02**

**NAME OF THE FACULTY: KAMALAKANTA NATH**

Week/Date	Lecture	Topic to be covered	REMARK
1 24/10/2022 TO 29/10/2022	1  2	Basic Concept of Electronics and its application. Basic Concept of Electron Emission & its types.  Classification of material according to electrical conductivity (Conductor, Semiconductor & Insulator) with respect to energy band diagram only.	<b>24/10/2022(Diwali holiday)Need one extra class for adjustment</b>
2 31/10/2022 TO 05/11/2022	1  2	Difference between Intrinsic & Extrinsic Semiconductor. Difference between vacuum tube & semiconductor.	
3 07/11/2022 TO 12/11/2022	1  2	Principle of working and use of PN junction diode, Zener diode and Light Emitting Diode (LED)  Integrated circuits (I.C) & its advantages.	<b>08/11/2022(Kartika Purnima holiday)Need one extra class for adjustment</b>
4 14/11/2022 TO 19/11/2022	1  2	Rectifier & its uses.Principles of working of different types of Rectifiers with their merits and demerits. Functions of filters and classification of Filter circuit characteristic	

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**PERIODS PER WEEK: 02**

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<b>Week/Date</b>	<b>Lecture</b>	<b>Topic to be covered</b>	<b>REMARK</b>
5 21/11/2022  TO 26/11/2022	1   2	D.C power supply system with help of block diagrams only.  Transistor, Different types of Transistor Configuration and state output and input current gain relationship in CE,CB and CC configuration( No mathematical derivation)	
6 28/11/2022  TO 03/12/2022	1   2	Need of biasing and explain different types of biasing with circuit  Amplifiers(concept)and how the amplification of signal is achieved by the help of transistor	
7 05/12/2022  TO 10/12/2022	1   2	working principles of single phase CE amplifier  Basic functions Oscillator and its classification	

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Week/Date	Lecture	Topic to be covered	REMARK
8 12/12/2022 TO 17/12/2022	1  2	Basic communication system with help of Block diagram ,Modulation , Need of modulation Different types of Modulation (AM, FM & PM)	
9 19/12/2022 TO 24/12/2022	1  2	Amplitude modulation and frequency modulation based on signal, carrier wave and modulated wave Demodulation ,Working of super heterodyne radio receiver, Block diagram of Radio Transmitter and Receiver	
10 26//12/2022 TO 31/12/2022	1  2	Concept of transducer and primary sensor. Different type of transducer and concept of active and passive transducer	<b>X'mas holiday(26/12/2022 To 31/12/2022) so need two extra classes</b>

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11 02/01/2023 TO 07/01/2023	1  2	Working principle of photo emissive Working principle of photoconductive	
12 09/01/2023 TO 14/01/2023	1 2	Working principle of photovoltaic transducer. application	
13 16/01/2023 TO 21/01/2023	1 2	Multimeter and its application Analog and digital multimeter and their difference	
14 23/01/2023 TO 28/01/2023	1 2	Working principle of multimeter with basic block diagram	<b>23/01/2023 Netaji Jayanti (holiday) Need one extra class for adjustment</b>
15 29/01/2023 TO 31/01/2023	1 2	CRO Working principle of CRO with simple block diagram	