



DEPARTMENT OF ELECTRICAL ENGINEERING  
ORISSA SCHOOL OF MINING ENGINEERING KEONJHAR

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## LESSON PLAN

Discipline- MATHEMATICS & SCIENCE	Semester-1 <sup>st</sup> Section B MECH+CIVIL	Name of the Teaching Faculty- ER. SHRADHA PATRA
Subject- BASIC ELECTRONICS	No. of days/week class allotted-02	Semester From Date: 16/08/2023 To Date: 11/12/2023
Subject Code- TH4(b)		Number of weeks- 17

MONTH	WEEK	NO. OF PERIODS AVAILABLE	CLASS DAY	THEORY TOPICS TO BE COVERED
AUGUST	1ST	1	16/08/2023	Introduction & Briefing of the syllabus Basic Concept of Electronics and its application.
	2ND	2	21/08/2023	Basic Concept of Electron Emission & its types
			23/08/2023	Classification of material according to electrical conductivity,
	3RD	1	28/08/2023	Difference between Intrinsic & Extrinsic Semiconductor
				Difference between vacuum tube & semiconductor.
SEPTEMBER	4TH	1	04/09/2023	Principle of working and use of PN junction diode, Zener diode and Light Emitting Diode (LED)
	5TH	2	11/09/2023	Integrated circuits (IC) & its advantages
			13/09/2023	Rectifiers, its working principle and types of rectifiers
	6TH	1	18/09/2023	Filters and its types
	7TH	2	25/09/2023 27/09/2023	
OCTOBER	8TH	1	04/10/2023	Working of D.C power supply system Transistor, Different types of Transistor Configuration and state output and input current gain relationship in CE, CB and CC configuration
	9TH	2	09/10/2023	Need of biasing and explain different types of biasing with circuit diagram
			11/10/2023	Amplifiers (concept) working principles of single phase CE amplifier Electronic Oscillator and its classification
	10TH	2	16/10/2023 18/10/2023	
	11TH	2	30/10/2023	Working of Basic Oscillator with different elements through simple

NOVEMBER

DECEMBER

TOTAL

17 WEEKS

27  
PERIODS

01/11/2023

06/11/2023

08/11/2023

13/11/2023

15/11/2023

20/11/2023

22/11/2023

29/11/2023

04/12/2023

06/12/2023

11/12/2023

Block Diagram  
Basic communication system (conc  
& explanation with help of Block  
diagram  
Concept of Modulation and  
Demodulation,  
Types of Modulation – FM AM PM  
Concept of Transducer and sensor  
with their differences  
Types of transducers  
Working principle of photoemissive,  
photoconductive, photovoltaic  
transducer and its application  
REVISION OF CHAPTER 1,2  
REVISION OF CHAPTER 2,3  
Multimeter and its applications  
Analog and Digital Multimeter and  
their differences  
Working principle of Multimeter with  
Basic Block diagram  
CRO, working principle of CRO with  
simple Block diagram  
REVISION OF CHAPTER 4

Shradha Patra  
09/08/2023

SHRADHA PATRA  
PTGF ELECTRICAL DEPT  
OSME KEONJHAR

CM  
9/8/23

HOD  
ELECTRICAL DEPT  
OSME KEONJHAR

PRINCIPAL  
OSME KEONJHAR



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## LESSON PLAN

Discipline- MATHEMATICS & SCIENCE	Semester-1 <sup>st</sup> Section D (METALLURGY)	Name of the Teaching Faculty- ER. SHRADHA PATRA		
Subject- BASIC ELECTRONICS Subject Code- TH4(b)	No. of days/week class allotted- 02	Semester From Date: 16/08/2023 To Date: 11/12/2023 Number of weeks- 17		
MONTH	WEEK	NO. OF PERIODS AVAILABL E	CLASS DAY	THEORY TOPICS TO BE COVERED
AUGUST	1ST	1	17/08/2023	Introduction & Briefing of the syllabus Basic Concept of Electronics and its application
	2ND	2	22/08/2023	Basic Concept of Electron Emission & its types
			24/08/2023	Classification of material according to electrical conductivity
	3RD	2	29/08/2023	Difference between Intrinsic & Extrinsic Semiconductor
			31/08/2023	Difference between vacuum tube & semiconductor
SEPTEMBER	4TH	2	05/09/2023	Principle of working and use of P-N junction diode, Zener diode and Light Emitting Diode (LED)
			07/09/2023	Integrated circuits (IC) & its advantages
	5TH	2	12/09/2023	Rectifiers, its working principle and types of rectifiers
			14/09/2023	Filters and its types
	6TH	1	21/09/2023	Working of D.C power supply system
OCTOBER	7TH	2	26/09/2023	Transistor, Different types of Transistor Configuration and static output and input current gain relationship in CE, CB and CC configuration
			28/09/2023	Working of D.C power supply system
	8TH	2	03/10/2023	Transistor, Different types of Transistor Configuration and static output and input current gain relationship in CE, CB and CC configuration
			05/10/2023	Need of biasing and explain different types of biasing with circuit diagram
	9TH	2	10/10/2023	Amplifiers (concept), working



NOVEMBER	10TH	2	12/10/2023	principles of single phase transformer Electronic Oscillator with its classification
			17/10/2023	Working of Basic Oscillator with different elements through simple Block Diagram
			19/10/2023	
	11TH	2	31/10/2023	Basic communication system (transmitter & explanation with help of Block diagram)
			02/11/2023	Concept of Modulation and Demodulation
	12TH	2	07/11/2023	Types of Modulation - FM AM, PM
			09/11/2023	REVISION OF CH 3
	13TH	2	14/11/2023	Concept of Transducer and sensor with their differences
			16/11/2023	Types of transducer
	14TH	2	21/11/2023	Working principle of photoconductive, photo voltaic transducer and its applications
			Multimeter and its applications Analog and Digital Multimeter and their differences	
23/11/2023			Working principle of LCR meter with Basic Block diagram	
DECEMBER	15TH	2	28/11/2023	CRO, working principle of CRO with simple Block diagram
			30/11/2023	REVISION OF CH 3
	16TH	2	05/12/2023	REVISION OF CH 3
			07/12/2023	REVISION OF CH 3
TOTAL		16 WEEKS	30 PERIODS	

Shradha Patra  
09/08/2023

SHRADHA PATRA  
PTGF ELECTRICAL DEPT  
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SN  
7/8/23

HOD  
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PRINCIPAL  
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