PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH

LESSON PLAN

Session: 2023-24

1st Semester

BRANCH- COMMON

Basic Electronics Engineering

Sri Niranjan Behera

Sr. Lect. in Electronics & tele.com. Engg.

Subject: Basic Electronics Engg. No. of Days/per week class allotted : 02

Semester From Date :16-08-2023 To Date :11-12-2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
1st	1	Basic concept of Electronics and its application
	2	Electron emission and its type
2nd	3	Classification of solid according to energy band diagram.
	4	Intrinsic semiconductor
3rd	5	Extrinsic semiconductor
	6	Difference between Vaccum tube and semi-conductor
4th	7	PN Junction diode , Zener diode and LED
	8	Integrated circuit (IC) and its advantage
5th	9	Rectifier
	10	Half wave & Full wave rectifier with their merits and demerits.
6th	11	Filter and different type of filter.
	12	Working of power supply (dc) with block diagram.
7th	13	Transistor , Different type of transistor CB,CE and CC.
	14	Need of biasing and type of biasing
8th	15	Single stage CE amplifier
	16	Oscillator and its classification.
9th	17	Different element of Oscillator and simple Block diagram
	18	Block diagram of Basics commutations system
10th	19	Modulation and Demodulation
	20	Type of modulation (AM,FM & PM)
11th	21	Concept of transducer
	22	Sensor . Different between sensor and transducer
12th	23	Different type of transducer
	24	Working Principle of photo volatile transducer.

Niranjan Behera

Signature of the Faculty

Subject: Basic Electronics Engg.

No. of Days/per week class allotted : 02

Semester From Date :16-08-2023 To Date :11-12-2023

No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
13th	25	Working Principle of photo emissive transducer.
	26	Multi meter and its application
14th	27	Analag and digital multimeter with block diagram.
	28	CRO , Working principle of CRO with block diagram.
15th	29	Different wave parameter and relation between them.
	30	Revision and Question discussion.
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Signature of the Faculty

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PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH

LESSON PLAN

Session-2023-2024

Discipline: Electrical Engg. Semester: 1st

Subject: Basic Electrical & Electronics Engineering

Name of the Teaching Faculty: Subesh Chandra Nayak

Subject: Basic Electrical Engg. No. of Days/per week class allotted : 04

Semester From Date : 16-08-2023 To Date : 11-12-2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
1	1	Concept of Current flow Concept of source & load. Ohm's law
	2	Concept of Resistance Series Circuit, Parallel circuit
2	3	Effect of power on Series and Parallel circuit
	4	Kirchhoff's law
3	5	Simple problems on Kirchhoff's law.
	6	Generation of alternating emf. Difference between A.C and D.C.
4	7	Define Amplitude, instantaneous value, Cycle time period, frequency, phase angle phase difference.
	8	State and explain R.M.S value, Average value, amplitude factor & form factor
5	9	Simple problems on R.M.S value and average value
	10	Represent AC value in phasor diagram, A.C through pure R
6	11	A.C through L, C, RL
	12	A.C through RC, RLC

Suresh Chandra Nayak

Signature of the Faculty

Subject: Basic Electrical Engg. No. of Days/per week class allotted : 04

Semester From Date : 16-08-2023 To Date : 11-12-2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
7	13	Simple problems on RL, RC, RLC series Circuit.
	14	Concept of power, power factor, impedance triangle and power triangle
8	15	Elementary idea on generation of Electricity from thermal power Station with block diagram.
	16	Generation of Electricity from hydro electric power Station.
9	17	Generation of electricity from Nuclear Power Station
	18	Introduction to D.C Machine. Main parts of D.C Machine
10	19	Classification of D.C. Generator.
	20	Classification of D.C. Motor
11	21	Uses of different types of D.C. Generator and Motor
	22	Different types of Single phase induction Motor. Uses of diff. types of 1-ϕ I.M.
12	23	Different types of lamps. Concept of Lumen.
	24	Construction and Principle of different types of lamps (filament, flourescent & LED bulb)

Subrata Chandra Bhagat

Signature of the Faculty

Subject: Basic Electrical Engg. No. of Days/per week class allotted : 04

Semester From Date : 16-08-2023 To Date : 11-12-2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
13	25	Construction and operating principle of LED bulb. Star rating of home appliances.
	26	Types of Wiring Single line diagram.
14	27	Basic protective device in household wiring Calculation of energy consumption in electrical installation.
	28	Introduction to measuring instrument. Torque in instrument.
15	29	Different uses of PMMC type of instrument (Ammeter & voltmeter) Uses of MI type of instruments (Ammeter, Voltmeter)
	30	Connection diagram of AC/DC Ammeter, voltmeter, energy meter & wattmeter (Singlephase only)

Subash Chandra Nayak

Signature of the Faculty