

Dicipline: ELECTRICAL/CIVIL/MECH	Semester :1st Sem	Name of the Teaching Faculty : SwetaleenaDehury (PTGF)
Subject: BASIC ELECTRICAL ENGG.	No. of days/week class allotted:2p(55Min)/week	Semester From date: 25 Oct 2022 to Date: 31 Jan No . Of Weeks:15
Week	Class Day	Theory Topics
1ST	1st	1.FUNDAMENTALS 1.1Concept of current flow 1.2.Concept of source & load
	2nd	1.3.State Ohm's law & concept of resistance 1.4 Relation of V, I, R in series circuit
2nd	1st	1.5 Relation of V, I, R in parallel circuit 1.6 Division of current in parallel circuit
	2nd	1.7 Effect of power in series & parallel circuit
	1st	1.8 Kirchhoff's law 1.9 Simple problems on Kirchhoff's law
3rd	2nd	Tutorial
4th	1st	2.1 Generation of alternating emf 2.2 Difference between D.C & A.C
	2nd	2.3 Define Amplitude, Instantaneous value, cycle, Time period, Frequency, Phase angle, phase difference
	1st	2.4 State explain RMS value, Average value, amplitude factor & form factor with simple problem
5th	2nd	2.5 Represent AC values in phasor diagram 2.6 AC through pure resistance, inductance & capacitance

6th	1st	2.7 AC through RL,RC,RLC series circuit 2.8 Problems
	2nd	2.9 Cocept of power & power factor 2.10 Impdenace triangle & power triangle
7th	1st	class Test 1
	2nd	3. GENERATION OF ELECTRICAL POWER 3.1 Explain generation of electricity from thermal power station with block diagram
8th	1st	Hydro Power station
	2nd	Nuclear Power station
9th	1st	INTERNAL
	2nd	4. CONVERSION OF ELECTRICAL ENERGY 4.1 Introduction of DC m/c 4.2 Main parts of DC m/c
10th	1st	4.3 Classification of DC generator 4.4 Classification of DC motor
	2nd	4.5 Uses of different types of DC generator & motors 4.6 Types & uses of single phase induction motor
11th	1st	4.7 Concept of lumen 4.8 construction and principle of filament lamp
	2nd	Fluorescent lamp ,LED bulb
12th	1st	Star rating of home appliances(Terminology,Energyefficiency,star rating concebt)
	2nd	Class Test 2
13th	1st	5. WIRING & POWER BILLING 5.1 Types of wiring for domestic installation 5.2 Layout of household electrical wiring
	2nd	5.3 List out the basic protective devices used in house hold wiring 5.4 Calculate energy consumed in a small electrical calculation

14th	1st	6 MEASURING INSTRUMENT 6.1 Introduction to measuring Instrument 6.2 Torque in instrument
	2nd	6.3 Different uses of PMMC Instrument 6.4 Uses of MI Instrument
15th	1st	6.5 Draw the connection diagram of A.C/D.C Ammeter, Voltmeter, energy meter & wattmeter (1phase only)
	2nd	Tutorial