ACADEMIC LESSON PLAN OF SUMMER 2024

ELECTRICAL Subject: BASIC ELECTRICAL ENGINEERI NG Week Class Day Theory Topics 1st 1st 1st 2nd 2nd 1st 1. FUNDAMENTALS: 1.1 Concept of current flow 2nd 1.2 concept of source and load 1.2.1 concept of D.C source 1.3 state Ohm's law 1.3.1 Resistance 2nd 2nd 1st 1.3 Series and parallel resistances 1.3.2 Series and parallel resistances 1.3.3 problems on series and parallel resistances 1.5 Kirchhoff's laws 1.5.1 problems on kirchhoff's laws 1.5.1 problems on kirchhoff's laws 1.5.1 concept of AC voltage and current 2nd 2nd 2nd 2nd 2nd 2nd 2nd 2	Discipline:	Semester:	Name of the Teaching Faculty:
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forton forms fortantismals much large.		2 nd	2.5 Explanation of RMS value , instantaneous value, average value, amplitude
			factor, form factor(simple problems)
6 th 1 st 2.6 Representation of AC values in phasor diagrams.	6 th		2.6 Representation of AC values in phasor diagrams.
2 nd 2.7. AC through pure resistance, inductance, capacitance		2 nd	2.7. AC through pure resistance, inductance, capacitance
7 th 1 st 2.8. AC through RL,RC, & RLC circuits	7 th	1 st	2.8. AC through RL.RC. & RLC circuits
2 nd 2.9. Problems on RL, RC,& RLC series circuits		2 nd	
1 st 2.10 concept of power and power factor	8 th	1 st	
2 nd 2.11. Impedance triangle		2 nd	
2.11.1 Power triangle		_	·
1 st 3. GENERATION OF ELECTRICAL POWER		1 st	
9 th 3.1 Introduction to different generating power plants	9 th		
2 nd 3.2. Thermal power plants		2 nd	
3.2.1 layout of a thermal power plant(advantages and disadvantages)			· · · · ·
1 st 3.3 Hydro power plant		1 st	
10 th 3.3.1 layout of a Hydro power plant(advantages and disadvantages)	10 th		, , , , , , , , , , , , , , , , , , , ,
2 nd 3.4 Nuclear power plant (layout of nuclear power plant with advantages and		2 nd	
disadvantages)			
11 th 1 st 4. CONVERSION OF ELECTRIACAL ENERGY(Introduction to DC machines)	11 th	1 st	

	2 nd	4.1 main parts of DC machines(DC generator and DC motor)
12 th	1 st	4.2 Single phase induction motor(types) and concept of lumen
	2 nd	4.3 different types of lamps, filaments, LED bulbs and their construction
		4.4 star rating of home appliances(star rating concept, energy efficiency)
	1 st	5. WIRING AND POWER BILLING: Types of wiring for domestic installations
13 th		5.1 single line diagram showing all the important components in the system
	2 nd	5.2 list of protective devices used in household wiring
		5.3 calculation of energy consumed.
14 th	1 st	6. MEASURING INSTRUMENTS: introduction to measuring instruments
	2 nd	6.1 Torques in measurements
		6.2 Different use of PMMC type of instruments(voltmeter and ammeter)
15 th	1 st	6.3 different usage of MI type of instruments(voltmeter and ammeter)
13	2 nd	6.4 Draw the connection diagram of A.C/D.C ammeter, voltmeter energy meter
		and wattmeter(single phase only).

Signature of Teaching Faculty