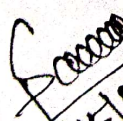
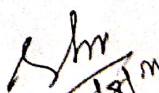


DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY	
CIVIL & MECHANICAL ENGG.	1ST	MISS. SINDHUJA PANIGRAHI, GF(ELECTRICAL)	
FUNDAMENTALS OF ELECTRICAL ENGG(TH-4A)		NO. OF DAYS PER WEEK CLASS ALLOTTED :	SEMESTER FROM 15/08/2024 TO 24/12/2024
		02	NO. OF WEEKS:- 15 NOS.
WEEKS	CLASS DAYS	THEORY TOPICS	
1ST WEEK	1ST	Electric and Magnetic Circuits: Introduction to Basic Principles of Electricity	
	2ND	Introduction to Generation, transmission & Distribution	
2ND WEEK	1ST	Definations of EMF, Current, Potential Difference, Power and Energy	
	2ND	Defination of Resistances, Capacitance, Inductance & ohms law	
3RD WEEK	1ST	Series and Parallel connection of Resistances, Capacitance, Inductance with Numericals	
	2ND	Introduction to Magnetic Circuit & Defination of M.M.F, magnetic force, permeability & susceptibility.	
4TH WEEK	1ST	Defination of reluctance, leakage factor and BH curve	
	2ND	Description of Hysteresis loop	
5TH WEEK	1ST	Electromagnetic induction & Faraday's laws of electromagnetic induction	
	2ND	Lenz's law; Dynamically induced emf; Statically induced emf	
6TH WEEK	1ST	Equations of self and mutual inductance	
	2ND	Analogy between electric and magnetic circuits.	
7TH WEEK	1ST	A.C. Circuits: Basic terminology Cycle, Frequency, Periodic time, Amplitude, Angular velocity,	
	2ND	RMS value, Average value, Form Factor Peak Factor	
8TH WEEK	1ST	Impedance, phase angle, and power factor	
	2ND	Mathematical and phasor representation of alternating emf and current	
9TH WEEK	1ST	Voltage and Current relationship in Star and Delta connections	
	2ND	A.C in resistors, inductors circuit	
10TH WEEK	1ST	A.C in Capacitive Circuit, A.C in R-L series Circuit	
	2ND	R-C series, R-L-C series Circuit	
11TH WEEK	1ST	A.C in R-L parallel	
	2ND	A.C in R-C Parallel, R-L-C Parallel Circuit.	
12TH WEEK	1ST	Power in A. C. Circuits, power triangle	
	2ND	Transformer and Machines: General construction and principle of Transformer	
13TH WEEK	1ST	Classification of transformer with construction and pinciple	
	2ND	Emf equation transformers	
14TH WEEK	1ST	Transformation ratio of transformers	
	2ND	Auto transformers	
15TH WEEK	1ST	Construction and Working principle of DC motors	
	2ND	Basic equations and characteristic of motors	


 15/08/24
 (GF, ELECT)


 15/8/24
 HOD (ELECTRICAL)
 GOVT. POLY.
 GAJAPATI