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 ALLOTED : 02	SEMESTER FROM 15/08/2024 TO 24/12/2024
		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	Defination 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, ELEC(T))

HOD (ELECTRICAL)
GOVT. POLY.
GAJAPATI