PNS SCHOOL OF ENGG. & TECH., MARSHAGHAI

DEPARTMENT OF ELECTRICAL ENGG

LESSON PLAN

SUBJECT: CIRCUIT AND NETWORK THEORY (3RD SEM)

NAME OF THE LECTURER: Er. CHACHA AMITAV TRIPATHY

CHAPTER	MONTH	DATE	TOPIC TO BE COVERED
MAGNETIC CIRCUITS	SEP	15.09.22	Introduction
		16.06.22	Magnetizing force, Intensity, MMF, flux and their relations
		19.09.22	Permeability, reluctance and permeance
		20.09.22	Analogy between electric and Magnetic Circuits
		21.09.22	B-H Curve
		22.09.22	Series & parallel magnetic circuit
		23.09.22	Hysteresis loop
		24.09.22	Doubt Clear Class
COUPLED CIRCUITS	SEP	26.09.22	Self Inductance and Mutual Inductance
		27.09.22	Conductively coupled circuit and mutual impedance,Dot convention
		28.09.22	Dot convention,Cofficent of coupling
		29.09.22	Series and parallel connection of coupled inductors
		30.09.22	Doubt Clear Class
CIRCUIT ELEMENTS AND ANALYSIS	OCT	10.10.22	Active, Passive, Unilateral & bilateral, Linear & Non linear elements
		11.10.22	Mesh Analysis, Mesh Equations by inspection
		12.10.22	Solved Numericals problems
		13.10.22	Super mesh Analysis
		14.10.22	Nodal Analysis, Nodal Equations by inspection
		15.10.22	Solved Numericals problems
		18.10.22	Super node Analysis
		19.10.22	Solved Numericals problems
		20.10.22	Source Transformation Technique
		21.10.22	Solve numerical problems
		22.10.22	Doubt Clear Class
NETWORK THEOREMS	OCT	26.10.22	Star to delta and delta to star transformation
		27.10.22	Solve numerical problems
		28.10.22	Super position Theorem
		29.10.22	Solve numerical problems
		31.10.22	Thevenin's Theorem
	NOV	01.11.22	Solve numerical problems
		02.11.22	Norton's Theorem
		03.11.22	Solve numerical problems
		04.11.22	Maximum power Transfer Theorem
		05.11.22	Solve numerical problems
		09.11.22	Doubt Clear Class
AC CIRCUIT AND RESONANCE	NOV	10.11.22	A.C. through R-L, R-C & R-L-C Circuit
		11.11.22	Solution of problems of A.C. through R-L, R-C & R-L-C series Circuit by complex algebra method.
		12.11.22	Solution of problems of A.C. through R-L, R-C & R-L-C parallel & Composite Circuits
		14.11.22	Power factor & power triangle, Deduce expression for active, reactive, apparent power
		15.11.22	Derive the resonant frequency of series resonance and parallel resonance circuit
		17.11.22	Define Bandwidth, Selectivity & Q-factor in series circuit.
		18.11.22	Solve numerical problems
		19.11.22	Doubt Clear Class

POLYPHASE CIRCUIT	**NOV**	21.11.22	Concept of poly-phase system and phase sequence
		22.11.22	Relation between phase and line quantities in star & delta connection
		23.11.22	Power equation in 3-phase balanced circuit
		24.11.22	Solve numerical problems
		25.11.22	Measurement of 3-phase power by two wattmeter method
		26.11.22	Solve numerical problems
TRANSIENTS	**NOV**	28.11.22	Steady state & transient state response.
		29.11.22	Response to R-L, R-C & RLC circuit under DC condition
		30.11.22	Response to R-L, R-C & RLC circuit under DC condition
	DEC	01.12.22	Response to R-L, R-C & RLC circuit under DC condition
		02.12.22	Solve numerical problems
		03.12.22	Doubt Clear Class
TWO-POR NETWORK	**DEC**	05.12.22	Open circuit impedance (z) parameters
		06.12.22	Short circuit admittance (y) parameters
		07.12.22	Solve Numerical problems
		08.21.22	Transmission (ABCD) parameters
		09.12.22	Hybrid (h) parameters.
		10.12.22	Inter relationships of different parameters
		12.12.22	T and π representation.
		13.12.22	Solve numerical problems
		14.12.22	Doubt Clear Class
FILTERS	**DEC**	15.12.22	Define filter,Classification of pass Band, stop Band and cut-off frequency
		16.12.22	Classification of filters, Constant – K low pass filter.
		17.12.22	Constant – K high pass filte, Constant – K Band pass filter
		19.12.22	Solve Numerical problems
		20.12.22	Constant – K Band pass filter, Constant – K Band elimination filter.
		21.12.22	Solve Numerical problems
		22.12.22	Doubt Clear Class

SIGNATURE OF H.O.D.

SIGNATURE OF LECTURER