



LESSON PLAN-2023(WINTER 2023)
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- ELECTRICAL	Semester- 3RD	Name of teaching faculty- MRUTYUNJAYA PATI
SUBJECT- Circuit and Network Theory	No of days/ per week class alloted-5	SEM From date- 01.08.23 No of weeks-17
Week	Class day	Theory Topics
1ST	01.08.2023	1. MAGNETIC CIRCUITS: 1. 1 Introduction
	02.08.2023	1. 2 Magnetizing force, Intensity, MMF, flux and their relations
	03.08.2023	1. 3 Permeability, reluctance and permeance
	04.08.2023	1. 4 Analogy between electric and Magnetic Circuits
2ND	07.08.2023	1. 5 B-H Curve
	08.08.2023	1. 6 Series & parallel magnetic circuit. 1. 7 Hysteresis loop
	09.08.2023	DO
	10.08.2023	CLASS TEST
3RD	11.08.2023	2. COUPLED CIRCUITS: 2. 1 Self Inductance and Mutual Inductance
	12.08.2023	2. 2 Conductively coupled circuit and mutual impedance
	14.08.2023	2. 3 Dot convention, 2. 4 Coefficient of coupling
	16.08.2023	2. 5 Series and parallel connection of coupled inductors
	17.08.2023	2. 6 Solve numerical problems
	18.08.2023	DO
	19.08.2023	CLASS TEST
4TH	20.08.2023	3. 1 Active, Passive, Unilateral & bilateral, Linear & Nonlinear elements 3. 2 Mesh Analysis, Mesh Equations by Inspection
	22.08.2023	3. 3 Super mesh Analysis
	23.08.2023	3. 4 Nodal Analysis, Nodal Equations by inspection
	24.08.2023	3. 5 Super node Analysis
	25.08.2023	3. 6 Source Transformation Technique
	26.08.2023	3. 7 Solve numerical problems (With Independent Sources Only)
	28.08.2023	DO
5TH	29.08.2023	CLASS TEST
	30.08.2023	4.1 Star to delta and delta to star transformation
	31.08.2023	4.2 Super position Theorem
	01.09.2023	4.3 Thevenin's Theorem
	02.09.2023	Solving problem
	04.09.2023	4.4 Norton's Theorem
	05.09.2023	Solving problem
1ST	06.09.2023	4.5 Maximum power Transfer theorem

	07.09.2023	Solving problem
	08.09.2023	Previous year question discussion
	09.09.2023	Class Test
2ND	11.09.2023	5.1 Review of A.C. through R-L, R-C & R-L-C Circuit
	12.09.2023	Do
	13.09.2023	5.2 Solution of problems of A.C. through R-L, R-C & R-L-C series Circuit by complex algebra method.
	14.09.2023	5.3 Solution of problems of A.C. through R-L, R-C & R-L-C parallel & Composite Circuits
	15.09.2023	Solving Problems
	16.09.2023	Do
3RD	18.09.2023	5.4 Power factor & power triangle. 5.5 Deduce expression for active, reactive, apparent power.
	20.09.2023	5.6 Derive the resonant frequency of series resonance and parallel resonance circuit
	21.09.2023	DO
	22.09.2023	solving problem
	23.09.2023	5.7 Define Bandwidth, Selectivity & Q-factor in series circuit
4TH	25.09.2023	5.8 Solve numerical problems
	26.09.2023	CLASS TEST
	27.09.2023	6.1 Concept of poly-phase system and phase sequence
	28.09.2023	6.2 Relation between phase and line quantities in star & delta connection
	30.09.2023	6.3 Power equation in 3-phase balanced circuit.
1ST	03.10.2023	6.4 Solve numerical problems
	04.10.2023	6.5 Measurement of 3-phase power by two wattmeter method.
	05.10.2023	6.6 Solve numerical problems.
	06.10.2023	DO
	07.10.2023	CLASS TEST
2ND	09.10.2023	7.1 Steady state & transient state response
	10.10.2023	INTERNAL
	11.10.2023	INTERNAL
	12.10.2023	INTERNAL
	13.10.2023	INTERNAL
	14.10.2023	INTERNAL
3RD	16.10.2023	Do
	17.10.2023	7.2 Response to R-L, R-C & RLC circuit under DC condition
	18.10.2023	Do
	19.10.2023	7.3 Solve numerical problems
	20.10.2023	CLASS TEST
	30.10.2023	8.1 Open circuit impedance (z) parameters
	31.10.2023	8.2 Short circuit admittance (y) parameters
1ST	01.11.2023	8.3 Transmission (ABCD) parameters
	02.11.2023	8.4 Hybrid (h) parameters
	03.11.2023	Solving Problems

	04.11.2023	Do
2ND	06.11.2023	8.5 Inter relationships of different parameters.
	07.11.2023	Do
	08.11.2023	8.6 T and π representation.
	09.11.2023	Class Test
	10.11.2023	9.1 Classification of filters. 9.2 Filter networks.
	11.11.2023	9.3 Equations of filter networks. 9.4 Classification of pass Band, stop Band and cut-off frequency.
3RD	13.11.2023	9.5 Characteristic impedance in the pass and stop bands 9.6 Constant - K low pass filter
	14.11.2023	9.7 Constant - K high pass filter
	15.11.2023	9.9 Constant - K Band elimination filter
	16.11.2023	Class Test
	17.11.2023	Revision of chapter 1
	18.11.2023	Revision of chapter 2
4TH	20.11.2023	Revision of chapter 3
	21.11.2023	Do
	22.11.2023	Revision of chapter 4
	23.11.2023	Do
	24.11.2023	Revision of chapter 5 & 6
	25.11.2023	Revision of chapter 7 & 8
5TH	27.11.2023	2 & 5 mark question discussion
	28.11.2023	Do
	29.11.2023	Do
	30.11.2023	Do

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