

LESSON PLAN-2022-2023
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- ELECTRICAL	Semester- 3RD	Name of teaching faculty- SOUMYA RANJAN MANTHAN
SUBJECT- Circuit and Network Theory	No of days/ per week class alloted-5	SEM From date- 16.09.2022 No of weeks-19
Week	Class day	Theory Topics
1st	16.9.2022	1. CIRCUIT ELEMENTS AND LAWS: 1.1 Voltage, current, power and energy
	19.09.2022	1.2 Resistance, Inductance & capacitance as parameters
	20.09.2022	1.3 Active, Passive, Unilateral & bilateral, Linear & Non linear elements
2ND	21.09.2022	DO
	22.09.22	1.4 KVL and KCL, Voltage division & current division.
	23.09.2022	2. MAGNETIC CIRCUITS 2 . 1 Introduction
	24.09.2022	2 . 2 Magnetizing force, Intensity, MMF, flux and their relations
3RD	26.09.2022	DO
	27.09.2022	2 . 3 Permeability, reluctance and permeance
	28.09.2022	class Test
	29.09.2022	2 . 4 Analogy between electric and Magnetic Circuits
4TH	30.09.2022	2 . 5 B-H Curve, 2 . 7 Hysteresis loop
	10.10.2022	2 . 6 Series & parallel magnetic circuit
	11.10.2022	solving poble
	12.10.2022	NETWORK ANALYSIS: 3.1 Mesh Analysis
	13.10.2022	3.2 Mesh Equations by inspection 3.2.1 Super mesh Analysis
5TH	14.10.2022	solving problem related to mesh analysis
	15.10.2022	3.2.2 Nodal Analysis 3.2.3 Nodal Equations by inspection
	17.10.2022	3.2.4 Super node Analysis
1ST	18.10.2022	solving problem related to node analysis
	19.10.2022	3.2.5 Source Transformation Technique
2ND	20.10.2022	DO
	21.10.2022	4.1 Star – delta transformation
	22.10.2022	4.2 Super position Theorem
	26.10.2022	4.3 Thevenin’s Theorem
3RD	27.10.2022	4.4 Norton’s Theorem

	28.10.2022	solving problem
	29.10.2022	4.5 Reciprocity Theorem
	31.10.2022	4.6 Compensation Theorem
4TH	01.11.2022	4.7 Maximum power Transfer theorem
	02.11.2022	4.8 Milliman's Theorem
	03.11.2022	doubt clear class
	04.11.2022	5.1 Review of A.C. through R-L, R-C & R-L-C Circuit
	05.11.2022	5.2 Solution of problems of A.C. through R-L, R-C & R-L-C series Circuit by complex algebra method.
5TH	07.11.2022	INTERNAL
	10.11.2022	INTERNAL
	11.11.2022	INTERNAL
	12.11.2022	5.3 Solution of problems of A.C. through R-L, R-C & R-L-C parallel & Composite Circuits
1ST	15.11.2022	5.4 Power factor & power triangle. 5.5 Deduce expression for active, reactive, apparent power.
	16.11.2022	5.6 Series resonance & band width in RLC Circuit
	17.11.2022	solving problem related to RL,RC,RLC circuit
	18.11.2022	do
	19.11.2022	do
2ND	21.11.2022	5.7 Resonant frequency for a tank circuit
	22.11.2022	5.8 Q factor & selectivity in series circuit.
	23.11.2022	5.9 Poly phase Circuit
	24.11.2022	5.10 Voltage, current & power in star & delta connection
	25.11.2022	5.11 Three phase balanced circuit
3RD	26.11.2022	6.1 Self Inductance and Mutual Inductance
	28.11.2022	2 Conductively coupled circuit and mutual impedance
	29.11.2022	do
	30.11.2022	6.3 Dot convention
	01.12.2022	6.4 Coefficient of coupling
4TH	02.12.2022	6.5 Series and parallel connection of coupled inductors
	03.12.2022	7.1 Steady state & transient state response
	05.12.2022	do
	06.12.2022	7.2 Response to R-L, R-C & RLC circuit under DC condition
	07.12.2022	do
	08.12.2022	8. introduction to wo pot network theory
1ST	09.12.2022	Class Test
	10.12.2022	8.1 Open circuit impedance (z) parameters
	12.12.2022	8.2 Short circuit admittance (y) parameters
	13.12.2022	8.3 Transmission (ABCD) parameters
2ND	14.12.2022	8.4 Hybrid (h) parameters
	15.12.2022	assignment
	17.12.2022	numericals

4 th	20.12.2022	numericals
	21.12.2022	8.5 Inter relationships of different parameters.
	22.10.2022	do
	23.12.2022	8.6 T and π representation.
	24.12.2022	Class Test
1st	26.12.2022	9.1 Classification of filters. 9.2 Filter networks.
	27.12.2022	9.3 Equations of filter networks. 9.4 Classification of pass Band, stop Band and cut-off frequency.
	28.12.2022	9.5 Characteristic impedance in the pass and stop bands 9.6 Constant – K low pass filter
	29.12.2022	9.7 Constant – K high pass filter
2nd	30.12..2022	9.9 Constant – K Band elimination filler
	31.12.2022	Class Test
	02.01.2023	9.9 Constant – K Band pass filter
	03.01.2022	assainment class

HOD

PRINCIPAL