GOVT. POLYTECHNIC BOLANGIR LESSON PLAN

Discipline : ELECTRICAL ENGG.	Semester: 3rd Sem	Name of the Teaching Faculty : Suryamani Sahoo
Subject : CNT	No. of Days / per week class allotted : 05	Semester From date : 01.09.2020 To Date : 31.12.2020 No. of Weesks : 15
Week	**Class Day**	**Topics**
1ST SEPT	1st	**1.MAGNETIC CIRCUITS 1 . 1 Introduction**
	2nd	1 . 2 Magnetizing force, Intensity, MMF, flux and their relations
	3rd	1 . 3 Permeability, reluctance and permeance
	4th	1 . 4 Analogy between electric and Magnetic Circuits
	5th	Doubt Clear Class
2ND SEPT	1st	1 . 5 B-H Curve
	2nd	1 . 6 Series & parallel magnetic circuit
	3rd	1 . 7 Hysteresis loop
	4th	Numerical Problems discussion,Revision
	5th	Doubt Clear Class
	1st	COUPLED CIRCUITS:2 . 1 Self Inductance and Mutual Inductance
	2nd	2 . 2 Conductively coupled circuit and mutual impedance 2 . 3 Dot convention
	3rd	2 . 4 Dot convention.2.5 Cofficent of coupling

3RD SEPT	4th	2 . 5 Series and parallel connection of coupled inductors
	5th	Doubt Clear Class
4TH SEPT	1st	2 . 6 Solve numerical problems
	2nd	3.CIRCUIT ELEMENTS AND ANALYSIS 3 . 1 Active, Passive, Unilateral & bilateral, Linear & Non linear elements 3 . 2 Mesh Analysis
	3rd	3 . 2 Mesh Analysis, Mesh Equations by inspection 3 . 3 Super mesh Analysis
	4th	3 . 4 Nodal Analysis, Nodal Equations by inspection
	5th	Doubt Clear Class
1ST OCT	1st	3 . 4 Nodal Analysis, Nodal Equations by inspection 3 . 5 Super node Analysis
	2nd	3 . 6 Source Transformation Technique
	3rd	3 . 7 Solve numerical problems (With Independent Sources Only)
	4th	NETWORK THEOREMS : 4.1 Star to delta and delta to star transformation
	5th	Doubt Clear Class
2ND OCT	1st	4.2 Super position Theorem
	2nd	Solve numerical problems (With Independent Sources Only)
	3rd	4.3 Thevenin's Theorem
	4th	4.4 Norton's Theorem
	5th	Doubt Clear Class
3RD OCT	1st	Solve numerical problems (With Independent Sources Only)
	2nd	4.5 Maximum power Transfer Theorem.
	3rd	Solve numerical problems (With Independent Sources Only)
	4th	AC CIRCUIT AND RESONANCE: 5.1 A.C. through R-L, R-C & R-L-C Circuit
	5th	Doubt Clear Class

1ST NOV	1st	5.2 Solution of problems of A.C. through R-L, R-C & R-L-C series Circuit by complex algebra method.
	2nd	5.3 Solution of problems of A.C. through R-L, R-C & R-L-C parallel & Composite Circuits
	3rd	5.4 Power factor & power tri 5.5 Deduce expression for active, reactive, apparent power
	4th	5.6 Derive the resonant frequency of series resonance and parallel resonance circuit
	5th	Doubt Clear Class

2ND NOV	1st	5.7 Define Bandwidth, Selectivity & Q-factor in series circuit.
	2nd	5.8 Solve numerical problems
	3rd	Solve numerical problems
	4th	POLYPHASE CIRCUIT 6.1 Concept of poly-phase system and phase sequence
	5th	Doubt Clear Class

3RD NOV	1st	6.2 Relation between phase and line quantities in star & delta connection
	2nd	6.3 Power equation in 3-phase balanced circuit
	3rd	6.4 Solve numerical problems
	4th	6.5 Measurement of 3-phase power by two wattmeter method
	5th	Doubt Clear Class

4TH NOV	1st	6.6 Solve numerical problems
	2nd	TRANSIENTS: 7.1 Steady state & transient state response.
	3rd	7.2 Response to R-L, R-C & RLC circuit under DC condition
	4th	7.2 Response to R-L, R-C & RLC circuit under DC condition
	5th	Doubt Clear Class

1ST DEC	1st	7.2 Response to R-L, R-C & RLC circuit under DC condition
	2nd	7.3 Solve numerical problems
	3rd	TWO-PORT NETWORK:8.1 Open circuit impedance (z) parameters
	4th	8.2 Short circuit admittance (y) parameters
	5th	Doubt Clear Class

2ND DEC	1st	8.3 Transmission (ABCD) parameters
	2nd	8.4 Hybrid (h) parameters.
	3rd	8.5 Inter relationships of different parameters

	4th	8.6 T and π representation.
	5th	Doubt Clear Class

3RD DEC	1st	8.7 Solve numerical problems
	2nd	8.7 Solve numerical problems
	3rd	FILTERS:9.1 Define filter9.2 Classification of pass Band, stop Band and cut-off frequency
	4th	9.3 Classification of filters9.4 Constant – K low pass filter.
	5th	Doubt Clear Class

4TH DEC	1st	9.5 Constant – K high pass filter.9.6 Constant – K Band pass filter
	2nd	9.6 Constant – K Band pass filter. 9.7 Constant – K Band elimination filter.
	3rd	9.8 Solve Numerical problems
	4th	9.8 Solve Numerical problems
	5th	Doubt Clear Class