

LESSON PLAN

JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA

Name of the Faculty: Astamita Mishra	Academic Year: 2021-2022
Course No.: Th 2	Course name: Circuit and Network Theory
Programe: Diploma	Branch: Electrical Engg
Year/Sem: 2 nd Year / 3 rd Sem	

Week No.	Period	Time (min)	Unit/Chapter	Topic to be Covered	Teaching Method
1 st	1.	55min	1	Introduction, magnetizing force, mmf, flux and their relation	Black board
	2.	55min	1	Permeability, reluctance and permeance	Black board
	3.	55min	1	Solve numerical problem	Black board
	4.	55min	1	Analogy between electric and magnetic circuit	Black board
	5.	55min	1	Series and parallel magnetic circuit B-H curve	Black board
2 nd	6.	55min	1	B-H curve ,Hysteresis loop	Black board
	7.	55min	2	Self inductance and mutual inductance	Black board
	8.	55min	2	Conductively coupled circuit and mutual inductance	Black board
	9.	55min	2	Dot convention, coefficient of coupling	Black board
	10.	55min	2	Series and parallel connection of coupled inductors	Black board
3 rd	11.	55 min	2	Numerical problems solving	Black board
	12.	55 min	3	Types of circuit elements	Black board
	13.	55min	3	Mesh analysis	Black board
	14.	55 min	3	Problems solving	Black board
	15.	55 min	3	Super mesh analysis	Black board
4 th	16.	55min	3	Node analysis	Black board
	17.	55min	3	Super node analysis	Black board
	18.	55 min	3	Source transformation techniques	Black board
	19.	55 min	3	Numerical problems solving	Black board
	20.	55 min	3	Numerical problems solving	Black board
5 th	21.	55 min	4	Star to delta and delta to star transformation	Black board
	22.	55min	4	Superposition theorem	Black board
	23.	55min	4	Thevenins theorem	Black board
	24.	55 min	4	Nortons theorem	Black board
	25.	55 min	4	Maximum power transfer theorem	Black board
6 th	26.	55 min	4	Numerical problems solving	Black board
	27.	55 min	4	Numerical problems solving	Black board
	28.	55 min	4	Numerical problems solving	Black board
	29.	55 min	5	Ac through RL, RC, RLC circuit	Projector
	30.	55 min	5	Ac through RL, RC, RLC circuit	Projector

7 th	31.	55 min	5	Numerical problems solving	Black board
	32.	55 min	5	Numerical problems solving	Black board
	33.	55 min	5	RLC series circuit	Projector
	34.	55 min	5	RLC parallel circuit	Projector
	35.	55 min	5	Power factor, power triangle, active, reactive, apparent power	Black board
8 th	36.	55 min	5	Series resonance, parallel resonance	Black board
	37.	55 min	5	Band width, selectivity, Q factor	Black board
	38.	55 min	5	Numerical problems solving	Black board
	39.	55 min	6	Poly phase system, phase sequence	Black board
	40.	55 min	6	Relation between phase and line quantity in star and delta system	Black board
9 th	41.	55 min	6	Power equation	Black board
	42.	55 min	6	Measurement of 3 phase power by 2 watt meter method	Black board
	43.	55 min	6	Numerical problems solving	Black board
	44.	55 min	7	Steady state and transient response	Black board
	45.	55 min	7	Response to RL, RC, RLC circuit to dc condition	Black board
10 th	46.	55 min	7	Numerical problems solving	Black board
	47.	55 min	7	Numerical problems solving	Black board
	48.	55 min	8	Z parameters, Y parameters	Black board
	49.	55 min	8	ABCD parameters, h parameters	Black board
	50.	55 min	8	Interrelationship of different parameters	Black board
11 th	51.	55 min	8	T and pie representation	Black board
	52.	55 min	8	Numerical problems solving	Black board
	53.	55 min	8	Numerical problems solving	Black board
	54.	55 min	9	Definition, classification of filters	Black board
	55.	55 min	9	Cut off frequency	Black board
12 th	56.	55 min	9	Constant K low pass, high pass filter	Black board
	57.	55 min	9	Constant K band pass, band stop filter	Black board
	58.	55 min	9	Numerical problems solving	Black board
	59.	55 min		Revision of all topics	Black board
	60.	55 min		Revision of all topics	Black board

Reference :

1. Circuit & Networks by A.Sudhakar & Shyam Mohan S Palli , TMH Publication.
2. Network Analysis & Synthesis by B.R. Gupta, S.Chand Publication .
3. Electrical Technology – Vol – I by B.L. Thereja , S. Chand Publication.