

DEPT. OF.....ELECTRICAL.....

(To be maintained by all members of the teaching staff)

101 Degrees Diploma
OUR BRANCH (Second Hall)

SESSION 2023-2024 (3RD - CNT.)
(DIPLOMA (5TH - PE & PLC))

NAME

Amrita Pradhan

DESIGNATION

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DEPT.

Electrical


SIGNATURE

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CIRCUIT AND NETWORK THEORY (CNT)

LESSON PLAN

Degree/Diploma/+2 Scien
(Theory/Pract/Lab/Worksho

Semester 3RD Branch Electrical

Month & Date	Course No. & Title	Brief note of the topics to be covered	No. of Classes Required
	TH-2.	<u>1. MAGNETIC CIRCUITS</u>	
04/09/23		1.1> Magnetizing Force. Introduction	01
		1.2> Intensity, MMF, Flux, their relations	
05/09/23		1.3> Permeability, Reluctance & Per meance	01
07/09/23		1.4> analog between electric & Magnetic circuit	01
08/09/23		1.5> B-H curve.	01
11/09/23		1.6> Series & Parallel Magnetic circuit.	01
12/09/23		1.7> Hysteresis Loop.	01
13/09/23		Numericals	
		<u>2. COUPLED CIRCUITS</u>	
14/09/23		2.1> Self Inductance & Mutual Inductance	01
		2.2> Conductively coupled ckt & Mutual Impedance	01
15/09/23		2.3> Dot Convention	
18/09/23		2.4> Co-efficient of coupling	01.

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Degree/Diploma/+2 Sci
(Theory/Pract/Lab/Works)

Electrical

Semester	3RD	Branch	Electrical	No. of Classes Required
Month & Date	Course No. & Title	Brief note of the topics to be covered		
21/09/23	TH-2.	2.5	Series & Parallel Connection of coupled ct	01
22/09/23			Numericals.	01
		3	CIRCUIT ANALYSIS	
25/09/23		3.1	Active, Passive, Unilateral & Bilateral Linear	01
			& Non-linear elements.	
26/09/23		3.2	Mesh Analysis Mesh Equations by Inspection.	01
27/09/23		3.3	Super Mesh Analysis	01
		3.4	Nodal Analysis, Nodal Equations by Inspection	
28/09/23		3.5	Super Node Mesh Analysis	01
3/10/23		3.6	Source Transformation Technique.	01
4/10/23		3.7	Numericals.	01
05/10/23			(Independent Sources only).	

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Semester 3RD

Branch

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	TH-2.	4> <u>NETWORK THEOREMS</u>	
06/10/23	4.1>	Star to Delta Delta to Star transformation.	02
09/10/23	4.2>	Superposition Theorem	01
10/10/23	4.3>	Thevenin's Theorem	01
11/10/23	4.4>	Norton's Theorem	01
12/10/23	4.5>	Maximum Power Transfer Theorem.	01
13/10/23		Numericals.	02
		5> <u>AC CIRCUIT</u> <u>RESONANCE</u>	
16/10/23	5.1>	AC through R-L, R-C, & R-L-C circuit	01
17/10/23	5.2>	Problem solving by R-L, R-C, R-L-C by complex algebra	01
18/10/23	5.3>	Problem solving by R-L, R-C & R-L-C parallel & composite ckt numericals.	01
19/10/23	5.4>	Power Factor & Power Triangle	01
20/10/23	5.5>	Active, Reactive & Apparent Power	01

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Semester 3RD Branch ELECTRICAL

Month & Date	Course No. & Title	Brief note of the topics to be covered	No. of Classes Required
01/11/23 02/11/23	TH-2 5.6	Series Resonance & Parallel Resonance.	02
06/11/23 08	5.7	Selectivity, Bandwidth, & Q Factor in Series ckt.	01
07/11/23		Numericals.	01
		<u>6> POLYPHASE CIRCUIT</u>	
08/11/23	6.1	Polyphase circuit & Phase Sequence.	01
	6.2	Phase quantities in	
09/11/23		lined star connection	01
10/11/23	6.3	Power Equation in Balanced 3- Φ system.	01
13/11/23	6.4	Measurement of 3- Φ Power (2-Wattmeter method)	01
14/11/23 15/11/23	6.5	Numericals.	02
		<u>7> TRANSIENTS</u>	
16/11/23 17/11/23	7.1	Steady State & Transient State Response	02
20/11/23 21/11/23	7.2	Response to R-L, R-C & R-L-C ckt under DC	02
22/11/23 23/11/23	7.3	Numericals.	02

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Semester

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ELECTRICAL

Month & Date	Course No. & Title	Brief note of the topics to be covered	No. of Class Requir
	<u>TH-2</u>	<u>8) TWO-PORT NETWORK</u>	
24/11/23 28/11/23	8.1) 8.2)	O.C (Z) Parameter S.C (Y) Parameter	02
29/11/23 30/11/23	8.3) 8.4)	Transmission (ABCD) Hybrid (H) Parameter	02
01/12/23 02/12/23	8.5)	Interrelationship of different parameter	02
03/12/23 06/12/23		Numericals.	02
		<u>9) FILTERS</u>	
07/12/23	9.1)	Define Filter.	01
	9.2)	Filter classification	
	9.3)	Classification of Band Pass, Band stop & cut-off frequency	
08/12/23	9.4)	K-Low Pass Filter	01
11/12/23	9.5)	K-High Pass Filter	01
12/12/23	9.6)	K-Band Pass Filter	01
13/12/23	9.7)	K-Band Elimination.	01
14/12/23	9.8)	Numericals	01