

DISCIPLINE- ELECTRICAL ENGG	SEMESTER- 3 RD	NAME OF THE TEACHING FACULTY- SIBANI PANDA,LECT (ELECT)	
SUB- EC LAB	NO OF CLASSES/ WEEK – 8P	TIME PERIOD- 01.07.2026 TO 05.11.2026 NO OF WEEKS- 18	
SL NO	CLASS DAY	TOPIC TO BE COVERED	REMARK
1 st	Group 1 (4p)	Use voltmeter, ammeter, wattmeter to determine active, reactive and apparent power consumed in given R-L-C series circuit. Draw phasor diagram.	
	Group 2 (4p)	Use voltmeter, ammeter, wattmeter to determine active, reactive and apparent power consumed in given R-L-C series circuit. Draw phasor diagram.	
2 nd	Group 1 (4p)	Use variable frequency supply to create resonance in given series R-L-C circuit or by using variable inductor or variable capacitor.	
	Group 2 (4p)	Use variable frequency supply to create resonance in given series R-L-C circuit or by using variable inductor or variable capacitor	
3 rd	Group 1 (4p)	Use voltmeter, ammeter, wattmeter, p.f meter to determine current, p.f., active, reactive and apparent power for given R-L-C parallel circuit with series connection of resistor and inductor in parallel with capacitor.	
	Group 2 (4p)	Use voltmeter, ammeter, wattmeter, p.f meter to determine current, p.f., active, reactive and apparent power for given R-L-C parallel circuit with series connection of resistor and inductor in parallel with capacitor	
4 TH	Group 1 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
	Group 2 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
5 th	Group 1 (4p)	Use variable frequency supply create resonance in given parallel R-L-C circuit or by using variable inductor or capacitor	
	Group 2 (4p)	Use variable frequency supply create resonance in given parallel R-L-C circuit or by using variable inductor or capacitor	
6 TH	Group 1 (4p)	Use voltmeter, ammeter, wattmeter, p.f meter to determine line and phase quantities of voltage and current for balanced three phase star and delta connected load and calculate active, reactive, and apparent power. Draw phasor diagram.	
	Group 2 (4p)	Use voltmeter, ammeter, wattmeter, p.f meter to determine line and phase quantities of voltage and current for balanced three phase star and delta connected load and calculate active, reactive, and apparent power. Draw phasor diagram.	
7 TH	Group 1 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
	Group 2 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
8 TH	Group 1 (4p)	Use voltmeter, ammeter to determine current through the given branch and voltage across the given element of circuit by applying superposition theorem.	
	Group 2 (4p)	Use voltmeter, ammeter to determine current through the given branch and voltage across the given element of circuit by applying superposition theorem.	
9 TH	Group 1 (4p)	Use voltmeter, ammeter to determine equivalent circuit parameter in a given circuit by applying Thevenin's theorem	
	Group 2 (4p)	Use voltmeter, ammeter to determine equivalent circuit parameter in a given circuit by applying Thevenin's theorem	
10 TH	Group 1 (4p)	Use voltmeter, ammeter to determine equivalent circuit parameter in a given circuit by applying Norton's theorem	
	Group 2 (4p)	Use voltmeter, ammeter to determine equivalent circuit parameter in a given circuit by applying Norton's theorem	
11 TH	Group 1 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
	Group 2 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
12 TH	Group 1 (4p)	Use voltmeter, ammeter to determine load resistance for maximum power transfer for a given circuit by applying maximum power transfer theorem.	
	Group 2 (4p)	Use voltmeter, ammeter to determine load resistance for maximum power transfer for a given circuit by applying maximum power transfer theorem.	
13 TH	Group 1 (4p)	Use voltmeter, ammeter to determine current through the given branch of a electric network by applying node analysis.	
	Group 2 (4p)	Use voltmeter, ammeter to determine current through the given branch of a electric	

		network by applying node analysis.	
14TH	Group 1 (4p)	Using Simulink, determine A.C voltage and current response in given R, L, C circuit.	
	Group 2 (4p)	Using Simulink, determine A.C voltage and current response in given R, L, C circuit.	
15TH	Group 1 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
	Group 2 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
16TH	Group 1 (4p)	Using Simulink, create resonance in given series R-L-C circuit	
	Group 2 (4p)	Using Simulink, create resonance in given series R-L-C circuit	
17TH	Group 1 (4p)	Verify network theorems(Superposition, Thevenin's, Norton's, Maximum power transfer) using Simulink Simscape	
	Group 2 (4p)	Verify network theorems(Superposition, Thevenin's, Norton's, Maximum power transfer) using Simulink Simscape	
18TH	Group 1 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	
	Group 2 (4p)	Repeat Above Three Experiments In Case Not Done Properly By Each Students & Viva	

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