LESSON PLAN

Name of the Faculty	**RENU BALA**
Discipline	**ELECTRICAL ENGINEERING**
Semester	**3rd**
Subject	**EMII**
Lesson Plan Duration	**15 WEEKS (From March 2023 to July 2023)**
Work Load (Lecture/ Practical) per week (in hours)	**Theory- 04**
	Practical :2

Week	**Theory**		
	Lecture Day	**Topic**	Date/ Signature
1st	**1st**	(a) Introduction to the Subject; (b) Introduction of the nature of the examination and marks distribution of different topics	
	2nd	Concept of measurement and instruments	
	3rd	Concept of measurement of electrical quantities and instruments for their measurements, sources of error.	
	4th	Types of electrical measuring instruments – indicating, integrating and recording type instruments	
2nd	**1st**	Essentials of indicating instruments – deflecting, controlling and damping torque	
	2nd	**Test of chapter 1**	
	3rd	Concept of ammeter and voltmeters and difference between them	
	4th	Construction and working principles of moving Iron and moving coil instruments	
3rd	**1st**	Merits and demerits, sources of error and application of these instruments	
	2nd	**Test of chapter 2**	
	3rd	Construction, working principle, merits and demerits of dynamometer type wattmeter, Digital wattmeters.	
	4th	Continued	
4th	**1st**	**Test of chapter 3**	
	2nd	Energymeter : Induction Type	
	3rd	Construction, working principle, merits and demerits of single-phase and three-phase energy meters	

	4th	Errors and their compensation	
5th	**1st**	Simple numerical problems	
	2nd	Construction and working principle of maximum demand indicators	
	3rd	Digital energy meter (diagram, construction and application)	
	4th	**Test of chapter 4**	
6th	**1st**	Construction, working principle and application of Meggar, Earth tester(analog and digital) Multimeter	
	2nd	Frequency meter (dynamometer type) single phase power factor meter (Electrodynamometer type)	
	3rd	Working principle of synchroscope and phase sequence indicator	
	4th	Tong tester (Clamp-on meter)	
7th	**1st**	Instrument Transformers: Construction, working and applications : CT	
	2nd	Continued	
	3rd	Instrument Transformers: Construction, working and applications : PT	
	4th	Continued	
8th	**1st**	**Test of chapter 5**	
	2nd	Cathode Ray Oscilloscope: Block diagram	
	3rd	Working principle of CRO and its various controls.	
	4th	Continued	
9th	**1st**	Applications of CRO.	
	2nd	Digital multi-meter (only block diagram) and Applications	
	3rd	Continued	
	4th	Continued	
10th	**1st**	**Test of chapter 6**	
	2nd	Study of LCR meters	
	3rd	Continued	
	4th	Applications of LCR	
11th	**1st**	Continued	
	2nd	**Test of chapter 7**	
	3rd	Two wattmeter method in balanced circuits	
	4th	Continued	
12th	**1st**	Two wattmeter method in unbalanced circuits	
	2nd	simple problems	
	3rd	Three wattmeter method	

	4th	Continued	
13th	**1st**	**Quiz**	
	2nd	Introduction, Types of Transducers	
	3rd	1&3 phase Transducers	
	4th	Basic concept of pressure measurement	
14th	**1st**	Flow measurement,	
	2nd	**level measurement**	
	3rd	displacement measurement using transducers	
	4th	Different types of thermometers, thermocouple, resistance	
15th	**1st**	Continued	
	2nd	temperature detector and their construction	
	3rd	principle and working TD	
	4th	**Thermal Imager Camera**	