Lesson Plan

Name of Faculty : Pooja Malik Discipline : ECE Semester : 4th sem Subject : PE Lesson Plan Duration : 14 weeks(from 6 March 2023 to june 2023) Work Load (lecture/practical)per week (in hours) : Theory-03

Week	Theory	
	Lecture Day	Topic
1	1	Unit 1. Role of Power electronics - Construction, working
		Two transistor analogy of SCR V-I characteristics of SCR
	2	SCR specifications & ratings.
	3	Ser apcontourions ce rumper
2	4	Different methods of SCR triggering.
	5	Different commutation circuits for SCR.
	,	Construction & working principle of DIAC, TRIAC and
	0	their V-I characteristics.
	7	Construction, working principle of UJT, V-I characteristics
	-	of UJT, UJT as relaxation oscillator
3	8	Heat sink, Application such as light intensity control, speed
	0	control of universal motors
	9	Fan regulator, battery charger.
4	10	Assignment -1
	11	Revision of 1st sessional exam
	12	Sessional exam -1
5	13	Unit 2. Single phase half wave controlled rectifier with load
		(R, R-L)
	14	Single phase half controlled full wave rectifier (R, R-L)
	15	Single phase fully controlled full wave bridge rectifier.
6	16	Single phase full wave centre tap rectifier
	17	Unit 3. Principle of operation of basic inverter circuits
	18	Concepts of duty cycle, series & parallel, inverters & then
		applications
7	19	Choppers: Introduction, types of choppers (Class A, Class D,
		Class C and Class D).
	20	Step up and step down choppers.
	21	Dual Converters and cyclo converters, introduction, type a
		basic working principle of dual converters and eyere
		converters & then applications.
8	22	Assignment -2
	23	Revision of zhe sessional exam
	24	Sessional exam -2
9	25	End wave drives - Chopper drives (Speed control of DC
	26	motor using choppers)
		AC drive control - Phase control
	27	Constant V/F operation - Cycloconverter/Inverter drives.
10	28	Unit 5 LIPS on-line off line & its specifications
	29	Off line LIPS & its specifications
	30	Difference between online and offline UPS
11	31	Concept of high voltage DC transmission
	32	Classification of hatteries
	33	Assignment -3
12	25	Revision of 3rd sessional exam
	35	Sessional exam -3
	30	Devicion of chanter 1 2 3
13	37	Cevision of enapter 4.5
	38	Revision of chapter 4,5
	39	Revision of very short answer questions
	40	Kevision of shore answer questions
14	41 1	Kevision of folig allswer questions
	42	Revision

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