Lesson Plan

Name of Faculty	Deepak Garg
Discipline	ECE
Semester	3rd
Subject	EDC
Lesson Plan Duration	15 weeks (Sept. 2020 to Dec. 2020)

Work Load (Lecture/Practical) per week (in hours) Lectures 05 Practicals 01

Week	Day	Topic	Practical(Discussion)
1	1	Need for multistage amplifier	Plot the frequency response of of two stage RC coupled amplifier and calculate the bandwidth and compare it with single Stage amplifier
	2	Gain of multistage amplifier	
	3	Different types of multistage amplifier like RC coupled	
	4	transformer coupled, and their frequency response and bandwidth	
	5	direct coupled and their frequency response and bandwidth	
2	1	Revision	To measure the gain of push-pull amplifier at 1KHz
	2	Difference between voltage and power amplifiers	
	3	Class A, Class B,	
	4	Class AB , Class C amplifiers	
	5	collector efficiency and Distortion in class A,B,C	
3	1	Revision	To measure the voltage gain of emitter follower circuit and plot its frequency response
	2	Single ended power amplifiers	
	3	Graphical method of calculation (without derivation) of out put power;	
	4	heat dissipation curve and importance of heat sinks	
	5	Push-pull amplifier	
4	1	Revision	Viva voce
	2	Complementary symmetry push-pull amplifier	
	3	Basic principles and types of feedback	
	4	Derivation of expression for gain of an amplifier employing feedback	
	5	Effect of feedback (negative) on gain, stability	
5	1	Revision	Plot the frequency response curve of Hartley and Colpitt's Oscillator
	2	distortion and bandwidth of an amplifier	
	3	RC coupled amplifier with emitter bypass Capacitor	

	4	Emitter follower amplifier	
	5	Emitter follower amplifier application	
6	1	Test	
	2	Test	
	3	Test	
	4	Test	
	5	Test	
7	1	Use of positive feedback	Plot the frequency response curve of phase shift and Wein bridge Oscillator
	2	Barkhausen criterion for oscillations	
	3	Different oscillator circuits-tuned collector, Hartley	
	4	Colpitts, phase shift,	
	5	Wien's bridge oscillator	
8	1	Revision	Use of IC 555 as monostable multivibrator and observe the output for different values of
	2	crystal oscillator and their working principles	
	3	Series and parallel resonant circuits	
	4	bandwidth of resonant circuits	
	5	Single and double tuned voltage amplifiers	
9	1	Revision	Use of IC 555 as astable multivibrator and observe the output at different duty cycles
	2	frequency response characteristics	
	3	Working principle of transistor as switch	
	4	Concept of multi-vibrator:	
	5	astable, monostable	
10	1	Test	
	2	Test	
	3	Test	
	4	Test	
	5	Test	
11	1	bistable and their applications	Viva Voce
	2	Block diagram of IC555 and its working	
	3	IC555 applications	
	4	IC555 as monostable and	
	5	astable multi-vibrator	
12	1	Revision	To realize positive and negative fixed voltage DC power supply using 3 terminal voltage regulator IC 7805, 7812, 7905
	2	bistable multivibrator	
	3	Characteristics of an ideal operational amplifier and its block diagram	
	4	IC-741 and its pin configuration	

	5	Definition of differential voltage gain,	
13	1	CMRR, PSRR	Class Project Fabricate any simple operational amplifier circuit (inverter, adder, subtractor) and test it.
	2	slew rate and input offset current	
	3	Operational amplifier as an inverter, scale changer	
	4	adder, subtractor	
	5	differentiator, and integrator	
14	1	Concept of DC power supply	Viva voce
	2	Line and load regulation	
	3	Concept of fixed voltage	
	4	regulators (like 7805, 7905)	
	5	voltage regulator like (IC 723)	
15	1	Test	
	2	Test	
	3	Test	
	4	Test	
	5	Test	