

Lesson Plan Duration : Aug. 2024 –Nov. 2024 work Load (Lecture/ Practical) per week (in hours): 3 HOURS (Theory) + 04 HOURS (02 Hours*2 Groups) (PRACTICAL)

Name of the Faculty: Sh. Deepak Garg Discipline : Electronics and Communication Engg. Subject: EDC-II

Semester : IIIrd

Week	Theory		Practical	Week	Theory		Practical
	Lecture day	Topic (including assignment/ test)	Topic		Lecture day	Topic (including assignment/ test)	Topic
1 st	1	Unit 1. Need for multistage amplifier, Gain of multistage amplifier	Plot the frequency response of two stage RC coupled amplifier and calculate the bandwidth.	8 th	22	Barkhausen criterion for oscillations	To observe the output wave form of RC phase shift oscillator
	2	RC coupled, transformer coupled, direct coupled, and their frequency response and bandwidth			23	Different oscillator circuits-tuned collector	
	3	Revision of chapter 1			24	Hartley and Colpitts oscillator	
2 nd	4	Unit 2. Difference between voltage and power amplifiers	To measure the gain of push-pull amplifier	9 th	25	phase shift, Wien's bridge Oscillator, crystal oscillator	To observe the output wave form of Wein bridge Oscillator
	5	Importance of impedance matching in amplifiers			26	Assignment 2	
	6	Class A, Class B, Class AB, and Class C amplifiers			27	2nd sessional test	
3 rd	7	collector efficiency and Distortion in class A,B,C.	VIVA-VOICE	10 th	28	Unit 5. Working principle of transistor as switch	Use of IC 555 as mono astable multivibrator and observe the output for different values of RC
	8	Single ended power amplifiers			29	Astable multivibrator	
	9	Heat dissipation curve and importance of heat sinks			30	Monostable and bistable multivibrator	
4 th	10	Push-pull amplifier, and complementary	To measure the voltage gain of	11 th	31	Block diagram of IC555 and its	VIVA-VOICE

		symmetry push-pull amplifier	emitter follower circuit and plot its frequency response			working and applications		
	11	Single and double tuned voltage amplifiers and their frequency response characteristics				32	IC555 as monostable and astable multivibrator, bistable multivibrator	
	12	Assignment 1				33	Characteristics of an ideal operational amplifier and its applications	
5 th	13	Revision of chapter 1	To observe the output waveform of Hartley Oscillator	12 th	34	IC-741 and its pin configuration	Use of IC 555 as astable multivibrator and observe the output at different duty cycles	
	14	Revision of chapter 2			35	Definition of differential voltage gain, CMRR, PSRR, slew rate and input offset current		
	15	1st sessional test			36	Operational amplifier as an inverter, scale changer, adder		
6 th	16	Unit 3 Basic principles and types of feedback	VIVA-VOICE	13 th	37	Subtractor, differentiator, and integrator	To use IC 741 (op-amp) as i) Inverter, ii) Adder, iii) Subtractor iv) Integrator	
	17	Derivation of expression for gain of an amplifier employing feedback			38	Assignment 3		
	18	Effect of feedback (negative) on gain, stability, distortion and bandwidth of an amplifier			39	3rd sessional test		
7 th	19	RC coupled amplifier with emitter bypass capacitor	To observe the output waveform of Colpitt's Oscillator	14 th	40	Revision of chapter 1 and 2	VIVA-VOICE	
	20	Emitter follower amplifier and its application			41	Revision of chapter 3 and 4		
	21	Unit 4. Use of positive feedback			42	Revision of chapter 5		