

LESSON PLAN

Name of the Faculty : Devi Prassan
Discipline : Electronics and Communication Engg.
Semester : 3rd
Subject : EDC

Work Load (Lecture/practical) per week in hours: Lecture-03, Practical-02

Week	Lecture	Name of topic	Experiment
1st	1 st	Need for multistage amplifier Gain of multistage amplifier	Plot the frequency response of two stage RC coupled amplifier and calculate the bandwidth and compare it with single stage amplifier
	2 nd	Different types of multistage amplifier like RC coupled and their frequency response	
	3rd	Transformer coupled and their frequency response	
2nd	4th	Direct coupled, and their frequency response	To measure the gain of push-pull amplifier at 1KHz
	5th	Difference between voltage and power amplifiers, Importance of impedance matching in amplifiers	
	6th	Class A, Class B, Class AB, and Class C amplifiers, collector efficiency and Distortion in class A,B,C.	
3rd	7th	Heat dissipation curve and importance of heat sinks.	To measure the voltage gain of emitter follower circuit and plot its frequency response
	8th	Single ended power amplifiers, Graphical method of calculation (without derivation) of output power;	
	9th	Push-pull amplifier, and complementary symmetry push-pull amplifier.	
4th	10th	Basic principles and types of feedback	Revision and Viva
	11th	Derivation of expression for gain of an amplifier employing feedback	
	12 th	Effect of feedback (negative) on gain, stability, distortion and bandwidth of an amplifier	
5th	13 th	RC coupled amplifier with emitter bypass capacitor.	Plot the frequency response curve of Hartley and Colpitt's Oscillator
	14 th	Emitter follower amplifier and its application.	
	15th	Revision	
6th	16 th	Revision	Plot the frequency response curve of phase shift and Wein bridge Oscillator
	17th	Sessional Test	
	18 th	Use of positive feedback Barkhausen criterion for oscillations	
7th	19th	Different oscillator circuits-tuned collector, Hartley,	Use of IC 555 as monostable multivibrator and observe the output for different values of RC
	20 th	Colpitts, phase shift,	

	21 st	Wien's bridge, Crystal oscillator	
8th	22 nd	Revision	Revision and Viva
	23 rd	Series and parallel resonant circuits and bandwidth of resonant circuits	
	24 th	Single and double tuned voltage amplifiers and their frequency response characteristics	
9th	25 th	Working principle of transistor as switch Concept of multi-vibrator: astable, mono-stable,	Use of IC 555 as astable multivibrator and observe the output at different duty cycles
	26 th	Bi-stable multi-vibrator and their applications.	
	27 th	Block diagram of IC555 and its working and applications	
10th	28 th	IC555 as mono-stable multi-vibrator	To use IC 741 (op-amplifier) as i) Inverter, ii) Adder, iii) Subtractor iv) Integrator
	29 th	IC 555 as stable multi-vibrator and bi-stable multi-vibrator	
	30 th	Revision	
11th	31 st	Sessional test	
	32 nd	Operational amplifier	
	33 rd	Characteristics of an ideal operational amplifier and its block diagram	
12th	34 th	IC-741 and its pin configuration Definition of differential voltage gain, CMRR, PSRR,	Revision and viva-voce
	35 th	Slew rate and input offset current.	
	36 th	Operational amplifier as an inverter, scale changer,	
13th	37 th	Operational amplifier as adder and subtractor,	To realize positive and negative fixed voltage DC power supply using three terminal voltage regulator IC (7805, 7812, 7905)
	38 th	Operational amplifier as differentiator, and integrator	
	39 th	Revision	
14th	40 th	Revision	Revision and viva-voce
	41 st	Concept of DC power supply. Line and load regulation	
	42 nd	Concept of fixed voltage, IC regulators (like 7805, 7905),	
15th	43 rd	variable voltage regulator like (IC 723)	Revision and viva-voce
	44 th	Revision	
	45 th	Sessional test	
16th	46 th	Revision	Revision and viva-voce
	47 th	Revision	
	48 th	Revision	