U. G. M. I. T, RAYAGADA

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGG

ACADEMIC LESSON PLAN FOR SUMMER SEMESTER-2023

NAME OF THE FACULTY	Smita Patnaik	DEPT	ETC		
SEMESTER	4th	SUBJECT	Analog Electronics and Linear IC		
NO. OF PERIODS PER WEEK	5	TOTAL PERIODS	75		
END SEMESTER EXAM	80	CLASS TEST	20		
TOTAL MARKS	100				

WEEK	PERIOD	UNIT/ CHAPTER	TOPIC TO BE COVERED
1st	1st	Diode, transistors and circuits	Introduction of pn junction diode
	2nd		Symbol, p and ntype semiconducto rworking principles of pn junction diode
	3rd		voltage and current characteristics of pn junction diode
	4th		Zener and Avalanche breakdown diodes
	5th		Definition of rectifoer. Rectifier classification.
2nd	1st		Fullwave centre tap and bridge rectifier
	2nd		Transistors circuits
	3rd		Different connections of transistor circuits
	4th		Transistor biasing
	5th		Rc coupled amplifiers
3rd	1st	Audio power amplifiers	concept of voltage amplifier
	2nd		concept of power amplifier
	3rd		Difference between voltage and power amplifier
	4th		Types of power amplifiers
	5th		Class A and Class B power amplifiers
4th	1st		Class C and ClassD power amplifiers
	2nd		Class AB power amplifiers
	3rd		PushPull power amplifier
	4th	Field effect transistor	Introduction of Field Effect Transistor
	5th		Difference between FET and BJT
5th	1st		Types of FET
	2nd		Working principle of JFET
	3rd		N-channel and P-channel JFET
	4th		Concept of MOSFET
	5th		Types of MOSFET
6th	1st		Construction of MOSFET
	2nd		Working principle of MOSFET
	3rd		CMOS, LDMOS
	4th	Feedback amplifiers and oscillator	Define feedback amplifier
	5th		Negative feedback with block diagram
7th	1st		Types of positive and negative amplifier
	2nd		Voltage series and voltage shunt feedback
	3rd		current series and current shunt feedback
	4th		sine wave oscillator and barkhusen criteria
	5th		Hartley and colpitt and rc phase shift oscillator
	1st		tuned and crystal oscillator
	2nd		Tuned amplifier describe

8th	3rd	Tuned amplifier and Waveshaping circuits	Parallel resonance circuit
	4th		Double tuned circuit
	5th		Different types of Non linear circuit
9th	1st		Clippers and Clamper circuit
	2nd		Positive and Negative clampers circuits
	3rd		Different types of clamper ckts
	4th		working principles of astable and mono stable multivibrator
	5th		working principles of bistable multivibrator
10th	1st		RC circuits
	2nd		Parallel resonance circuit
	3rd		Revision the lesson
	4th	Operational amplifier circuits and feedback configuration	Differential amplifier and configuration
	5th		Block diagram of opamp, input offset voltage, slew rate
11th	1st		inverting and non inverting amplifier
	2nd		CMMR and its electric characters
	3rd		types of integrated circuit
	4th		open loop configuration
	5th		circuit diagram of voltage series feedback
12th	1st		derive the close loop voltage gain
	2nd		gain feed back circuit input resistance
	3rd		close loop voltage gain
	4th		output resistance and bandwidth
	5th		voltage shunt feedback amplifier
13th	1st		output offset voltage with feedback
	2nd		revision
	3rd	Application of OPAMP,Timer circuits and IC voltage regulator	Discuss the summing scaling of inverter and non inverter amplifier
	4th		Dcand AC amplifier using OpAmp
	5th		intergrater and differentiater using op amp
14th	1st		active filter
	2nd		zero crossing detector
	3rd		IC555 timer
	4th		IC565 PLL and aplication
	5th		working of current to voltage convertor
15th	1st		working of voltage to frequency using opamp
	2nd		78XX and 79XX
	3rd		LM317
	4th		LM723
	5th		LM317