

Discipline
ElectricalSemester
4thName of the Teaching faculty
Sourya Shyamali MahapatraSubject
AECNo. of class/period
as allowed
05Semester from: 10-3-2022 to 10-6-2022
No. of weeks: 14week
class Day

Theory/ Practical Topics.

week	class Day	Theory/ Practical Topics.
	1st	
07.3.22	2nd	
	3rd	PN junction diode: Pn junction working, VI characteristics
to	4th	DC load line, ideal diode, knee voltage
12.3.22	5th	Junction breakdown: zener & avalanche breakdown
14.3.22	1st	PN diode: Clipping and clamping circuit
	2nd	Semiconductor device Thermistor, sensors & varistors & zener
to	3rd	Tunnel diode, PIN diode and Rectifiers.
	4th	← Dola Purnima →
19.3.22	5th	← Holi →
21.3.22	1st	Halfwave, fullwave center tapped & bridge rectifier
	2nd	DC output current and voltage
to	3rd	RMS output current and voltage
	4th	Rectifier efficiency, Ripple factor
26.3.22	5th	Regulation and Transformer utilization factor
28.3.22	1st	Peak inverse voltage
	2nd	Filters: shunt capacitor filter, choke input filter
to	3rd	Filter of choke, π filter
	4th	← Utkal Divas →
2.4.22	5th	Transistors: Principle of BJT
4.4.22	1st	Different modes of transistors. (operation)
	2nd	Current components in a transistor
to	3rd	Transistor as an amplifier
	4th	CB configuration
9.4.22	5th	CE configuration

week	class Day	Theory / Practical Topics :
11-4-22	1st 2nd 3rd	CC configuration Transistor Biasing, stabilization Stabilization and stability factors ← Maha Vaisuba Sankranti →
16-4-22	4th 5th	← Good Friday → Different mode of transistor Biasing
18-4-22	1st 2nd 3rd 4th	Bias resistor method, collector to base bias Self bias or voltage divider method Practical circuit of transistor amplifier DC load line & DC equivalent circuit
28-4-22	5th	AC load line & DC equivalent circuit
25-4-22	1st 2nd 3rd 4th	Calculation of gain and Phase Reversal H-parameters of transistor & simplified 4-Parameter Generalised approximate model Analysis of CB, CE, CC amplifiers
30-4-22	5th	Multi-stage transistor, RC coupled amplifier
2-5-22	1st 2nd 3rd 4th	Transformer coupled amplifier and feedback in amplifier — Id - VI - filter — General theory of feedback Negative feedback circuit
7-5-22	5th	Advantage of negative feedback
9-5-22	1st 2nd 3rd 4th	Power amplifier & its classification Diff ⁿ bet ⁿ voltage amp. & power amplifier Transformer coupled class A power amplifier Class A push-pull amplifier
14-5-22	5th	Class B push-pull amplifier

week	class day	Topics:
0	16.5.22	1st 2nd 3rd 4th 5th
		← Buddha Purnima → Oscillators: Oscillator and its types Essentials of transistor oscillator Principle of operation collector and bridge classification of FET
	21.5.22	5th
	13.5.22	1st 2nd 3rd 4th 5th
		Advantages of FET over BJT Principle of operation of BJT FET parameters Dc drain, Ac drain, trans. Biasing of FET General circuit simple of op-amp 741 op-amp
	28.5.22	5th
	30.5.22	1st 2nd 3rd 4th 5th
		← Sabitri Amabasya → operational amplifiers stage Equivalent circuit of op-amp. open loop op-amp configuration op-amp with feedback
	4.5.22	5th
	6.6.22	1st 2nd 3rd 4th 5th
		Inverting and non-inverting op-amp Differential amplifier Voltage follower amplifier Adder or summing amplifier, subtractor Differentiator, Comparator
	11.6.22	5th

Verified
10/05/2022