



NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY
SERGARH-756060, BALASORE (ODISHA)
(Approved by AICTE& affiliated to SCTE&VT, Odisha)



LESSON PLAN

SUBJECT : TH-4(a)

Name Of The Faculty :- Er. NIRANJAN SAHU

Session :- 2024-25

Branch :-AUTO/CIVIL/MECH.

Semester :- 1ST

Examination :- 2024 (W)

CHAPTER WISE DISTRIBUTION OF PERIODS

Sl.No.	Name of the chapter as per the Syllabus	No. of periods actually needed
1	Overview of Electronic Components and Signals	10
2	Overview of Analog Circuits	6
3	Overview of Digital Electronics	13
4	Electric and Magnetic Circuits	8
5	AC Circuits	13
6	Transformer and Machines	10
Total		60

Niranjan Sahu
Sign of Faculty 13/8/24

[Signature]
Sign of H.O.D.
13/08/24

Discipline: AUTO/CIVIL/ MECH.	Semester: 1ST	Name of the Teaching Faculty: Er.NIRANJAN SAHU	
		SESSION : 2024-25	EXAMINATION : 2024 (W)
Week	Class Day	Topics to be Covered	
1 st	1 st	Introduction of Electronics components,passive components like resistors	
	2 nd	Series And Parallel ckt of Resistors.	
	3 rd	Passive components like Inductor,Capacitors	
	4 th	Active components like PN junction Diode	
2 nd	1 st	Zener Diode ,Light Emitting Diode	
	2 nd	Transistor	
	3 rd	FET	
	4 th	Mos Devices	
3 rd	1 st	Signal And Active Devices	
	2 nd	frequency,Waveform	
	3 rd	Introduction of Analog Circuit	
	4 th	Basic of Opamp	
4 th	1 st	Opamp Parameter	
	2 nd	Opamp Configuration	
	3 rd	Opamp Operating mode as adder ,subtraction	
	4 th	Opamp Operating mode as differentiator,integrator	
5 th	1 st	Introduction of Digital Electronics	
	2 nd	Decimal Number system,Binary Number system	
	3 rd	Octal and Hexadecimal Number System	
	4 th	Number Conversion like Binary to Decimal,Decimal to Binary	
6 th	1 st	Boolean Laws and Theorems	
	2 nd	LOGIC GATES,Types of Logic Gates	
	3 rd	FLIP FLOPS AND COUNTERS,Types of Flip Flop	
	4 th	S R flip flop,Clocked S R flip flop	
7 th	1 st	D flip flop ,J K flip flop	
	2 nd	T flip-flop	
	3 rd	Counters,Asynchronous Counter	
	4 th	Introduction to Integrated Circuits	
8 th	1 st	Transistor Transistor Logic (TTL)	
	2 nd	Introduction of Electric and Magnetic Circuit	
	3 rd	Current /Voltage and Power/Energy	
	4 th	Electric Circuit Terminology	
9 th	1 st	Kirchoff's Current Law (KCL),Kirchoff's Voltage Law (KVL)	
	2 nd	Parameters of magnetic Circuit like Magnetizing force,Flux density	
	3 rd	Magnetomotive Force,Magnetic Circuits	
	4 th	Faraday's law,Self-inductance,Mutual Inductance	

Week	Class Day	Topics to be Covered
10 th	1 st	ANALOGY BETWEEN ELECTRICAL AND MAGNETIC CIRCUITS
	2 nd	Introduction of AC Circuits
	3 rd	Important terms related with an alternating quantity
	4 th	Important terms related with an alternating quantity
11 th	1 st	Phase, Phase Difference and Power Factor
	2 nd	A.C in Pure Resistors
	3 rd	A.C in Pure Inductors
	4 th	A.C in Pure Capacitors
12 th	1 st	Resistance - Inductance (R-L) circuit
	2 nd	Resistance - Capacitance (R-C) circuit
	3 rd	Resistance, Inductance and Capacitance Circuit (R.L.C. Circuit)
	4 th	AC POWER AND THREE PHASE CIRCUIT
13 th	1 st	Star and Delta Connection
	2 nd	Power Triangle
	3 rd	Introduction of Transformer and Machines
	4 th	Parts of a Transformer
14 th	1 st	Types of Transformers
	2 nd	EMF Equation of Transformer, Voltage Transformation ratio
	3 rd	ELECTRIC MOTORS
	4 th	Construction of DC Motor, Working Principle of DC Motor
15 th	1 st	Types of DC Motors
	2 nd	3ph AC Motors like Squirrel Cage, Wound Rotor
	3 rd	Single phase AC Motors
	4 th	Capacitor Split Phase AC Motors

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