



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



LESSON PLAN

SUBJECT: TH-4 (ELEMENTS OF MECHANICAL ENGINEERING)

Name of the Faculty- Er.Bishnu Charan Jena

Branch- Electrical & Electronics Engineering

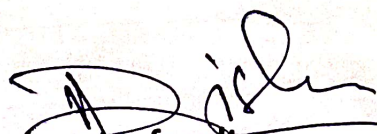
Session- 2024-25

Semester- 3rd

Examination- 2024 (W)

CHAPTER WISE DISTRIBUTION OF PERIODS

Sl.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	THERMODYNAICS	6	7
2	PROPERTIES OF STEAM	5	5
3	BOILERS	10	11
4	STEAM ENGINES	10	11
5	STEAM TURBINES	6	6
6	CONDENSER	4	4
7	I.C. ENGINE	4	4
8	HYDROSTATICS	5	5
9	HYDROKINETICS	5	5
10	HYDRAULIC DEVICES AND PNEUMATICS	5	5
	Total	60	62

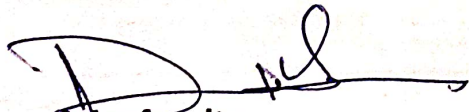

sign of the faculty


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Discipline: ELECTRICAL & ELECTRONICS ENGINEERING	Semester: 3rd	Name of the Teaching Faculty: Er.Bishnu Charan Jena	
		SESSION : 2024-25	EXAMINATION : 2024 (W)
Week	Class Day	Topics to be Covered	
1 st	1 st	THERMODYNAMICS:	
	2 nd	State Unit of Heat and work, 1st law of thermodynamics.	
	3 rd	State Unit of Heat and work, 1st law of thermodynamics.	
	4 th	State Laws of perfect gases	
2 nd	1 st	Determine relationship of specific heat of gases at constant volume and constant pressure	
	2 nd	PROPERTIES OF STEAM	
	3 rd	PROPERTIES OF STEAM:	
	4 th	Use steam table for solution of simple problem	
3 rd	1 st	Explain total heat of wet, dry and super heated steam	
	2 nd	Explain total heat of wet, dry and super heated steam	
	3 rd	BOILERS	
	4 th	State types of Boilers	
4 th	1 st	Describe Cochran	
	2 nd	Describe Cochran	
	3 rd	Babcock Wilcox boiler	
	4 th	Describe Mountings and accessories	
5 th	1 st	Describe Mountings and accessories	
	2 nd	Describe Mountings and accessories	
	3 rd	STEAM ENGINES:	
	4 th	STEAM ENGINES:	
6 th	1 st	Explain the principle of Simple steam engine	
	2 nd	Explain the principle of Simple steam engine	
	3 rd	Draw Indicator diagram	

Week	Class Day	Topics to be Covered
6 th	4 th	Draw Indicator diagram
7 th	1 st	Calculate Mean effective pressure
	2 nd	IHP and BHP and mechanical efficiency.
	3 rd	Solve Simple problem.
	4 th	Solve Simple problem.
8 th	1 st	STEAM TURBINES
	2 nd	STEAM TURBINES
	3 rd	State Types
	4 th	State Types
9 th	1 st	Differentiate between impulse and reaction Turbin
	2 nd	Differentiate between impulse and reaction Turbin
	3 rd	CONDENSER
	4 th	Explain the function of condenser
10 th	1 st	Explain the function of condenser
	2 nd	Explain the function of condenser
	3 rd	State their types
	4 th	State their types
11 th	1 st	I.C. ENGINE
	2 nd	Explain working of two stroke and 4 stroke petrol and Diesel engines.
	3 rd	Explain working of two stroke and 4 stroke petrol and Diesel engines.
	4 th	Explain working of two stroke and 4 stroke petrol and Diesel engines.
12 th	1 st	Differentiate between them
	2 nd	Differentiate between them
	3 rd	HYDROSTATICS
	4 th	HYDROSTATICS

Week	Class Day	Topics to be Covered
13 th	1 st	Describe properties of fluid
	2 nd	Describe properties of fluid
	3 rd	Determine pressure at a point, pressure measuring Instruments
	4 th	Determine pressure at a point, pressure measuring Instruments
14 th	1 st	HYDROKINETICS:
	2 nd	<i>Deduce equation of continuity of flow</i>
	3 rd	Explain energy of flowing liquid
	4 th	State and explain Bernoulli's theorem
15 th	1 st	State and explain Bernoulli's theorem
	2 nd	HYDRAULIC DEVICES AND PNEUMATICS:
	3 rd	HYDRAULIC DEVICES AND PNEUMATICS:
	4 th	Intensifier
16 th	1 st	Hydraulic lift
	2 nd	Accumulator
	3 rd	Hydraulic ram
	4 th	Revision


sign of the faculty


Sign of H.O.D