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

Sign of H.O.D

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**
1st	1st	*THERMODYNAICS:*
	2nd	State Unit of Heat and work, 1st law of thermodynamics.
	3rd	State Unit of Heat and work, 1st law of thermodynamics.
	4th	State Laws of perfect gases
2nd	1st	Determine relationship of specific heat of gases at constant volume and constant pressure
	2nd	PROPERTIES OF STEAM
	3rd	PROPERTIES OF STEAM:
	4th	Use steam table for solution of simple problem
3rd	1st	Explain total heat of wet, dry and super heated steam
	2nd	Explain total heat of wet, dry and super heated steam
	3rd	BOILERS
	4th	State types of Boilers
4th	1st	Describe Cochran
	2nd	Describe Cochran
	3rd	Babcock Wilcox boiler
	4th	Describe Mountings and accessories
5th	1st	Describe Mountings and accessories
	2nd	Describe Mountings and accessories
	3rd	STEAM ENGINES:
	4th	STEAM ENGINES:
6th	1st	Explain the principle of Simple steam engine
	2nd	Explain the principle of Simple steam engine
	3rd	*Draw Indicator diagram*

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

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

sign of the faculty

Sign of H.O.D