



LESSON PLAN

A)

PROGRAMME: DIPLOMA ENGINEERING	COURSE:ELECTRICAL ENGINEERING
TEACHER NAME:SMRUTI SWAGAT RAY MOHAPATRA	SEMESTER :3RD
SUBJECT NAME:ELEMENTS OF MECHANICAL ENGINEERING	THEORY NO: TH 3
COURSE AREA/ DOMAIN :	CONTACT HOURS:
CORRESPONDING LAB PRACTICAL NO(IF ANY):	LAB COURSE NAME:

B) Course Outcomes:

After completion of the course the student shall be able to know

On completion of the course content the students will be able to:

1. Explain the principle of working of Boilers, Turbines and condensers.
2. State the different types of boilers and Turbines and their uses.
3. Explain the properties of steam.
4. State and explain thermodynamic laws

C) Text Books:

Sl.No.	Prescribed Books	Author
01	Thermal Engineering	R. S. Khurmi
02	Hydraulics & Hydraulic M/Cs	A. R. Basu
03	Thermal Engineering	A. S. Sarad
04	Hydraulics & Hydraulic M/Cs	R. K. Bansal.



D) Course Plan:

<i>Planning</i>				
Week No.	Lecture No.	Chapter No.	Article(s) from the Syllabus	Topics to be taught (Brief Description of the title from the Prescribed Book)
01	1	01	1.1	State Unit of Heat and work, 1st law of thermodynamics.
	2		1.2	State Laws of perfect gases
	3	02	1.3	Determine relationship of specific heat of gases at constant volume and constant pressure.
	4		2.1	Use steam table for solution of simple problem
02	5	02	2.2	Explain total heat of wet, dry and super heated steam
	6	&	3.1	State types of Boilers
	7	03	3.2	Describe Cochran, Babcock Wilcox boiler
	8		3.3	Describe Mountings and accessories
03	9	04	4.1	Explain the principle of Simple steam engine
	10		4.2	Draw Indicator diagram
	11		4.3	Calculate Mean effective pressure, IHP and BHP and mechanical efficiency.
	12		4.4	Solve Simple problem.
04	13	05	5.1	State Types
	14		5.2	Differentiate between impulse and reaction Turbine
	15	06	6.1	Explain the function of condenser
	16		6.2	State their types
05	17	07	7.1	Explain working of two stroke and 4 stroke petrol and Diesel engines.
	18	&	7.2	Differentiate between them
	19	08	8.1	Describe properties of fluid
	20		8.2	Determine pressure at a point, pressure measuring Instruments
06	21	09	9.1	Deduce equation of continuity of flow
	22		9.2	Explain energy of flowing liquid
	23	10	9.3	State and explain Bernoulli's theorem
	24		10.1	Intensifier
07	25	10	10.2	Hydraulic lift
	26		10.3	Accumulator



EINSTEIN SCHOOL OF ENGINEERING

(Managed by Udayanath Educational & Charitable Trust, Bhubaneswar)

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	27		10.4	Hydraulic ram
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Faculty HOD Academic Convener Principal