

Discipline: Electrical engineering	Semester : 3 rd Semester	Name of the Teaching faculty: Er. Binaya Bhusan Panda
Subject :ELEMENT OF MECHANICAL ENGINEERING	No. of Class Allotted:60	Semester from date: 15/09/2020 to date: 22/12/2022 No of weeks :14
Week	Class Day	Theory Topics
1 st	1 st	definition of thermodynamics
	2 nd	state unit of heat and work, 1st law of thermodynamics
	3 rd	state laws of perfect gases
	4 th	Boyles law Charles law, gaylusses law
2 nd	1 st	Determine relationship of specific heat of gases at constant volume and constant pressure.
	2 nd	properties of steam
	3 rd	use steam table for solution of simple problem
	4 th	explain total heat of wet, dry and superheated steam
3 rd	1 st	introduction boilers:
	2 nd	state types of boilers
	3 rd	describe Cochran,
	4 th	Babcock, Wilcox boiler
4 th	1 st	describe mountings of boiler
	2 nd	accessories of boiler
	3 rd	introduction steam engines
	4 th	explain the principle of simple steam engine
5 th	1 st	draw indicator diagram
	2 nd	calculate mean effective pressure, ihp and bhp and mechanical efficiency
	3 rd	solve simple problem.
	4 th	steam turbines
6 th	1 st	state types of stem turbine
	2 nd	differentiate between impulse and reaction turbine
	3 rd	condenser introduction
	4 th	explain the function of condenser
7 th	1 st	state their types of condenser
	2 nd	IC. engine
	3 rd	explain working of two stroke petrol engine
	4 th	explain working 4 stroke petrol engine
8 th	1 st	explain working of two stroke diesel engine
	2 nd	explain working 4 stroke diesel engines
	3 rd	differentiate between ic engine and ec engine
	4 th	differentiate between them diesel engine and petrol engine

9 th	1 st	differentiate between them diesel engine and petrol engine
	2 nd	hydrostatics
	3 rd	property of fluid
	4 th	mass density, specific volume,
10 th	1 st	relative density, surface tension
	2 nd	viscosity definition unit,
	3 rd	numerical on hydrostatic
	4 th	definition of pressure and types
11 th	1 st	determine pressure at a point
	2 nd	different types of pressure measuring instrument
	3 rd	different types of pressure measuring instrument
	4 th	manometer, u tube manometer
12 th	1 st	numerical on pressure measuring instrument
	2 nd	Hydrokinetics and types of fluid flow
	3 rd	define continuity equation and its derivations
	4 th	problem solving on continuity equation
13 th	1 st	explain energy of flowing liquid
	2 nd	types of energy flow in fluid
	3 rd	state and explain Bernoulli's theorem
	4 th	solving numerical on Bernoulli's theorem
14 th	1 st	hydraulic devices and pneumatics
	2 nd	hydraulic devices and pneumatics
	3 rd	Intensifier and hydraulic lift
	4 th	Accumulator and hydraulic ram

