Government Polytechn		
Discipline : MECHANICAL ENGG.		**Semester: 4th Sem**
Subject : TE-II		**No. of Days / per week class allotted : 04**
MONTH	**Week**	**Day**
FEBRUARY	3rd	2nd
		3rd
		4th
	4th	1st
		2nd
		3rd
		4th
	5th	1st
		2nd
MARCH	1st	3rd
		4th
	2nd	1st
		4th
	3rd	1st
		2nd
		3rd
		4th
	4th	1st
		2nd
		3rd
		4th
	5th	1st
		2nd
		3rd
		4th
APRIL	2nd	1st
		2nd
		3rd
		4th
	3rd	1st
		2nd
		3rd
		4th
	4th	1st
		2nd
		3rd

		4th
	5th	1st
		2nd
		3rd
		4th
MAY	1ST	1st
		2nd
		3rd
		4th
	2ND	1st
		2nd
		3rd
		4th
	3rd	1st
		2nd
		3rd
		4th
	4TH	1st
		2nd

nic Mayurbhanj, Tikarpada || Lesson Plan

Name of the Teaching Faculty : SASMITA SAHA

Semester From date : 14.02.2023 To Date : 23.05.2023

Topics
Performance of I.C engine: Define mechanical efficiency, Indicated thermal efficiency
Relative Efficiency, brake thermal efficiency overall efficiency
Mean effective pressure &specific fuel consumption.
Solve related problems
Define air-fuel ratio & calorific value of fuel.
Work out problems to determine efficiencies & specific fuel consumption
Work out problems to determine efficiencies & specific fuel consumption
Explain functions of compressor & industrial use of compressor air
Explain functions of compressor & industrial use of compressor air
Classify air compressor & principle of operation
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Describe the parts and working principle of reciprocating Air compressor.
Describe the parts and working principle of reciprocating Air compressor.
Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric efficiency
Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric efficiency
Derive the work done of single stage & two stage compressor with and without clearance.
Derive the work done of single stage & two stage compressor with and without clearance.
Solve simple problems (without clearance only)
Solve simple problems (without clearance only)
Difference between gas & vapours.
Formation of steam.
Representation on P-V, T-S, H-S, & T-H diagram.
Definition & Properties of Steam
Use of steam table & mollier chart for finding unknown properties
Non flow & flow process of vapour.
Solve related problems
Determine the changes in properties & solve simple numerical.
Classification & types of Boiler.
Important terms for Boiler.
Comparison between fire tube & Water tube boiler.
Description & working of common boilers (Cochran, Lancashire, Babcock & Wilcox Boiler)
Description & working of common boilers (Cochran, Lancashire, Babcock & Wilcox Boiler)
Boiler Draught (Forced, induced & balanced)
Boiler mountings & accessories
Carnot cycle with vapour
Derive work & efficiency of the cycle.

Rankine cycle.
Representation in P-V, T-S & h-s diagram. Derive Work & Efficiency.
Effect of Various end conditions in Rankine cycle
Reheat cycle & regenerative Cycle.
Solve simple numerical on Carnot vapour Cycle & Rankine Cycle.
Modes of Heat Transfer (Conduction, Convection, Radiation).
Modes of Heat Transfer (Conduction, Convection, Radiation).
Fourier law of heat conduction and thermal conductivity (k).
Newton's laws of cooling.
Radiation heat transfer (Stefan, Boltzmann & Kirchhoff's law)
Radiation heat transfer (Stefan, Boltzmann & Kirchhoff's law)
Black body Radiation, Definition of Emissivity, absorptivity, & transmissibility.
Black body Radiation, Definition of Emissivity, absorptivity, & transmissibility.
Solve related problems
Solve related problems
Revision
Revision
Question Discussion.
Question Discussion.