LESSION PLAN(WEF 16.01.2024 to 26.04.2024)		
Discipline : Mechanical Engg.	Semester : 4th	Name of the Teachnig Faculty : Mrs. Monalisha Behera
Subject : Thermal Engineering-II	No.of days/Per weeks Class Alloted Weeks :4	SEMESTER FROM DATE:16/01/2024 TO DATE:26/04/2024
WEEK	CLASS DAY	THEORY
3RD WEEK JAN-2024	1ST	Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
		Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
	2ND	Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
		Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
	3RD	Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
		Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
	4TH	Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
		Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
4TH WEEK OF JAN-2024	1ST	Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency overall efficiency
		Mean effective pressure &specific fuel consumption. Define air-fuel ratio & calorific value of fuel.
	2ND	Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency, brake thermal efficiency
		Mean effective pressure &specific fuel consumption. Define air-fuel ratio & calorific value of fuel.
	---	Work out problems to determine efficiencies & specific fuel consumption

	3RD	Work out problems to determine efficiencies & specific fuel consumption
	4TH	Work out problems to determine efficiencies & specific fuel consumption
		Work out problems to determine efficiencies & specific fuel consumption
1ST WEEK OF FEB-2024	1ST	Work out problems to determine efficiencies & specific fuel consumption
		Work out problems to determine efficiencies & specific fuel consumption
	2ND	Work out problems to determine efficiencies & specific fuel consumption
		Work out problems to determine efficiencies & specific fuel consumption
	3RD	Work out problems to determine efficiencies & specific fuel consumption
		Work out problems to determine efficiencies & specific fuel consumption
	4TH	Work out problems to determine efficiencies & specific fuel consumption
		Work out problems to determine efficiencies & specific fuel consumption
2ND WEEK OF FEB-2024	1ST	Explain functions of compressor & industrial use of compressor air
		Classify air compressor & principle of operation.
	2ND	Classify air compressor & principle of operation.
		Classify air compressor & principle of operation.
	3RD	Describe the parts and working principle of reciprocating Air compressor.
	4TH	Describe the parts and working principle of reciprocating Air compressor.
3RD WEEK OF FEB-2024	1ST	Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric
	2ND	Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric
	3RD	Derive the work done of single stage & two stage compressor with and without clearance.
	4TH	Derive the work done of single stage & two stage compressor with and without clearance.
	1ST	Solve simple problems (without clearance only)

4TH WEEK OF FEB-2024	2ND	Solve simple problems (without clearance only)
	3RD	Solve simple problems (without clearance only)
	4TH	Solve simple problems (without clearance only)
1ST WEEK OF MARCH-2024	1ST	Difference between gas & vapours, Formation of steam.
	2ND	Representation on P-V, T-S, H-S, & T-H diagram.
	3RD	Definition & Properties of Steam.
	4TH	Use of steam table & mollier chart for finding unknown properties.
2ND WEEK OF MARCH-2024	1ST	Non flow & flow process of vapour.
	2ND	P-V, T-S & H-S, diagram.
	3RD	Determine the changes in properties & solve simple numerical.
	4TH	Determine the changes in properties & solve simple numerical.
3RD WEEK OF MARCH-2024	1ST	Determine the changes in properties & solve simple numerical.
	2ND	Determine the changes in properties & solve simple numerical.
	3RD	Determine the changes in properties & solve simple numerical.
	4TH	Determine the changes in properties & solve simple numerical.
4TH WEEK OF MARCH-2024	1ST	INTERNAL
	2ND	INTERNAL
	3RD	INTERNAL
	4TH	INTERNAL
1ST WEEK OF APRIL-2024	1ST	Classification & types of Boiler.
	2ND	Important terms for Boiler.
	3RD	Comparison between fire tube & Water tube Boiler.
	4TH	Description & working of common boilers (Cochran, Lancashire, Babcock & Wilcox Boiler),5 Boiler Draught
2ND WEEK OF APRIL-2024	1ST	Boiler mountings & accessories.
	2ND	Carnot Cycle,Derive Expression for Work & Efficiency
	3RD	Representation in P-V, T-S & h-s diagram
	4TH	Effect of Various end conditions in Rankine cycle

	4TH	
3RD WEEK OF APRIL-2024	1ST	Reheat cycle & regenerative Cycle.
	2ND	
	3RD	Solve simple numerical on Carnot vapour Cycle & Rankine Cycle.
		Solve simple numerical on Carnot vapour Cycle & Rankine Cycle.
	4TH	Solve simple numerical on Carnot vapour Cycle & Rankine Cycle.
		Solve simple numerical on Carnot vapour Cycle & Rankine Cycle.
4TH WEEK OF APRIL-2024	1ST	Modes of Heat Transfer (Conduction, Convection, Radiation
	2ND	Fourier law of heat conduction and thermal conductivity (k).
		Newton's laws of cooling
	3RD	4 Radiation heat transfer (Stefan, Boltzmann & Kirchhoff's law) only statement, no derivation & no numerical problem.
	4TH	Black body Radiation, Definition of Emissivity, absorptivity, & transmissibility.

16/01/2024