Discipline : MECHANICAL ENGG.	**Semester :** 4TH	**Name of The Teaching Faculty :** ER. RASMITA MAHAPATRA
Subject: THERMAL-2	**No Of Days/Week Class Allotted** 04	**Semester From :** 16.01.2024 To 26.04.2024
		No. Of Weeks : 15
WEEKS	**CLASS DAY**	**THEORY**
16.01.2024 TO 20.01.2024	1st	Define mechanical efficiency, Indicated thermal efficiency, Relative Efficiency
	2nd	brake thermal efficiency overall efficiency Mean effective pressure &specific fuel consumption.
	3rd	Define air-fuel ratio & calorific value of fuel.
22.01.2024 TO 27.01.2024	1st	Solve Numericals
	2nd	**NETAJI JAYANTI**
	3rd	Work out problems to determine efficiencies & specific fuel consumption.
	4th	Explain functions of compressor & industrial use of compressor air
29.01.2024 TO 03.02.2024	1st	Classify air compressor & principle of operation.
	2nd	Describe the parts and working principle of reciprocating Air compressor.
	3rd	Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric efficiency.
	4th	Derive the work done of single stage & two stage compressor with and without clearance.
05.02.2024 TO 10.02.2024	1st	Solve Numericals
	2nd	Solve Numericals
	3rd	Difference between gas & vapours.
	4th	Formation of steam.
12.02.2024TO 17.02.2024	1st	Representation on P-V, T-S, H-S, & T-H diagram.
	2nd	Definition & Properties of Steam.
	3rd	**SARASWATI PUJA(VASANTA PANCHAMI)**
	4th	Use of steam table & mollier chart for finding unknown properties.
19.02.2024 TO 24.02.2024	1st	Non flow & flow process of vapour.
	2nd	P-V, T-S & H-S, diagram.
	3rd	Determine the changes in properties
	4th	Solve numerical
26.02.2024 TO 02.03.2024	1st	Solve numerical
	2nd	Classification & types of Boiler.
	3rd	Important terms for Boiler
	4th	Comparison between fire tube & Water tube Boiler
04.03.2024 TO 09.03.2024	1st	Description & working of Cochran boiler,
	2nd	**PANCHAYAT RAJ DIVAS**
	3rd	Lancashire, Babcock & Wilcox Boiler
	4th	Boiler Forced Draught
11.03.2024 TO 16.03.2024	1st	induced & balanced draught
	2nd	Boiler mountings & accessories
	3rd	Revision of chapter
	4th	Carnot cycle with vapour.
18.03.2024 TO 23.03.2024	1st	Derive work & efficiency of the cycle.
	2nd	Rankine cycle P-V, T-S & h-s diagram.
	3rd	Derive Work & Efficiency

	4th	Effect of Various end conditions in Rankine cycle.
25.03.2024 TO 30.03.2024	1st	**DOLO PURNIMA**
	2nd	**HOLI**
	3rd	Reheat cycle
	4th	Regenerative Cycle.
01.04.2024 TO 06.04.2024	1st	**UTKAL DIVAS**
	2nd	Solve simple numerical on Carnot vapour Cycle
	3rd	Solve simple numerical on Carnot vapour Cycle
	4th	Rankine Cycle numerical solve
08.04.2024 TO 13.04.2024	1st	Rankine Cycle Numerical solve
	2nd	Modes of Heat Transfer (Conduction, Convection, Radiation).
	3rd	Fourier law of heat conduction and thermal conductivity (k).
	4th	Newton's laws of cooling.
15.04.2024 TO 20.04.2024	1st	Radiation heat transfer (Stefan, Boltzmann & Kirchhoff's law)
	2nd	Black body Radiation
	3rd	**RAM NAVAMI**
	4th	Definition of Emissivity, absorptivity, & transmissibility.
22.04.2024 TO 27.04.2024	1st	Revision Of Chapter
	2nd	Previous year paper discussion
	3rd	Previous year paper discussion
		CLOSING OF ATTENDANCE