Prepared: Name/Sign/Date	Reviewed: Name/Sign/Date RG/ /	Approved: Name/Sign/Date CM/ /

Name of the Institute:	**C. V. Raman Polytechnic**	
Department:	**Mechanical Engineering**	
Semester/Division/Branch:	**Sem**	
Subject Name with code:	**4th Thermal Engineering-II**	
Total No. of Class (Required):	**60**	**Date (Lesson Plan):**
Faculty Name:	**Mr. Prakash Kumar Parida**	

Class No.	Brief Description of the Topic/Chapter to be taught	Remarks
1	Define mechanical efficiency, Indicated thermal efficiency,	
2	Relative Efficiency, brake thermal efficiency overall efficiency	
3	Mean effective pressure & specific fuel consumption.	
4	Define air-fuel ratio & calorific value of fuel.	
5	Work out problems to determine efficiencies & specific fuel consumption.	
6	Work out problems to determine efficiencies & specific fuel consumption.	
7	Explain functions of compressor & industrial use of compressor air	
8	Classify air compressor & principle of operation.	
9	Describe the parts and working principle of reciprocating Air compressor.	
10	Describe the parts and working principle of reciprocating Air compressor.	
11	Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric efficiency	
12	Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric efficiency	
13	Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric efficiency	
14	Explain the terminology of reciprocating compressor such as bore, stroke, pressure ratio free air delivered &Volumetric efficiency	
15	Derive the work done of single stage & two stage compressor with and	

	without clearance	
16	Derive the work done of single stage & two stage compressor with and without clearance	
17	Derive the work done of single stage & two stage compressor with and without clearance	
18	Derive the work done of single stage & two stage compressor with and without clearance	
19	Solve simple problems (without clearance only)	
20	Difference between gas & vapors.	
21	Formation of steam.	
22	Representation on P-V, T-S, H-S, & T-H diagram.	
23	Definition & Properties of Steam.	
24	Use of steam table & mollier chart for finding unknown properties.	
25	Non flow & flow process of vapor.	
26	P-V, T-S & H-S, diagram.	
27	P-V, T-S & H-S, diagram.	
28	Determine the changes in properties & solve simple numerical.	
29	Classification & types of Boilers.	
30	Important terms for Boiler.	
31	Comparison between fire tube & Water tube Boiler.	
32	Description & working of common boilers (Cochran, Lancashire, Babcock & Wilcox Boiler)	
33	Description & working of common boilers (Cochran, Lancashire, Babcock & Wilcox Boiler)	
34	Boiler Draught (Forced, induced & balanced)	
35	Boiler mountings & accessories.	
36	Carnot cycle with vapor.	
37	Derive work & efficiency of the cycle.	
38	Rankine cycle.	
39	Rankine cycle.	
40	Representation in P-V, T-S & h-s diagram.	
41	Representation in P-V, T-S & h-s diagram.	
42	Derive Work & Efficiency.	
43	Derive Work & Efficiency.	
44	Effect of Various end conditions in Rankine cycle.	

45	Reheat cycle & regenerative Cycle.	
46	Reheat cycle & regenerative Cycle.	
47	Solve simple numerical on Carnot vapor Cycle & Rankine Cycle.	
48	Solve simple numerical on Carnot vapor Cycle & Rankine Cycle.	
49	Solve simple numerical on Carnot vapor Cycle & Rankine Cycle.	
50	Modes of Heat Transfer (Conduction, Convection, Radiation).	
51	Modes of Heat Transfer (Conduction, Convection, Radiation).	
52	Fourier law of heat conduction and thermal conductivity (k).	
53	Fourier law of heat conduction and thermal conductivity (k).	
54	Newton's laws of cooling.	
55	Radiation heat transfer (Stefan, Boltzmann & Kirchhoff's law) only statement, no derivation & no numerical problem.	
56	Radiation heat transfer (Stefan, Boltzmann & Kirchhoff's law) only statement, no derivation & no numerical problem.	
57	Black body Radiation, Definition of Emissivity, absorptivity, & transmissibility.	
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59	Revision and Doubt Clearing	
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Signature of the Faculty

Signature of the H.O.D