

**LESSON PLAN.**

**ACADEMY SESSION - SUMMER 2022**

**4th SEMESTER W.E.F-10/03/2022 Total Period :- 48**

**Subject:- Thermal Engineering-II**

**Teacher :- HEMANTA KUMAR BARIK(W/S SUPDT, MECHANICAL ENGINEERING DEPT.)**

SL NO	MONTH	Week	Date	UNIT NO/PERIOD ALLOTTED	Topic to be covered as per Syllabus	Topic actually covered as per Syllabus	Short fall if any/syllabus	remarks
1	MARCH	2nd Week	3/10/2022	8	Define Mechanical Efficiency, Indicated Thermal Efficiency			
2		3rd Week	3/14/2022		Relative Efficiency, Brake Thermal Efficiency, Overall Efficiency			
3			3/15/2022		Mean Effective Pressure & Specific Fuel Consumption			
4			3/16/2022		Define air-fuel ratio & calorific value of fuel			
5			3/17/2022		Workout problems to determine efficiencies & specific fuel consumption.			
6			3/21/2022		Doubt clearing class on 1 <sup>st</sup> chapter.			
7		4th Week	3/22/2022	12	Explain functions of air-compressor & its industrial use.			
8			3/23/2022		Classify air-compressor & principle of operation.			
9			3/24/2022		Describe parts & working principle of a reciprocating air-compressor			
10		5th Week	3/28/2022	12	Explain various terminology for reciprocating compressor.			
11			3/29/2022		Derive workdone of single stage air-compr. with & without clearance			
12			3/30/2022		Derive workdone of double stage air-compr. with & without clearance			
13	APRIL	1st Week	4/4/2022	12	Workout simple problems.			
14			4/5/2022		Doubt clearing class on air-compressor			
15			4/6/2022		Difference between gas & vapour.			
16			4/7/2022		Formation of steam & its type.			
17		2nd Week		12	Representing steam on P-V, T-S, H-S & T-H diagram			
18			4/12/2022		Definition & properties of steam.			
19			4/13/2022		Use of steam table & Mollier chart			
20		3rd Week	4/18/2022	12	Non-flow & flow processes of vapour.			
21			4/19/2022		Determine the changes in properties & solve simple numerals.			
22			4/20/2022		-do-			
23			4/21/2022		INTERNAL EXAMINATION			
24		4th Week	4/25/2022	12	Revision of internal exam. Questions.			
25			4/26/2022		Classification of boiler			
26			4/27/2022		Types of boiler			
27			4/28/2022		Important terms connected with boiler			
28		1st Week	5/2/2022	12	Comparison between firetube & watertube boiler.			
29	5/4/2022		Description & working of Cochran Boiler					
30	5/5/2022		Description & working of Babcock & Wilcox Boiler					

31	MAY	2nd Week	5/9/2022	8	Description & working of Lancashire Boiler				
32			5/10/2022		Boiler Draught				
33			5/11/2022		Boiler Mountings				
34			5/12/2022		Boiler Accessories				
35	3rd Week		5/17/2022	8	Doubt Clearing class.				
36			5/18/2022		Carnot cycle with vapour.				
37			5/19/2022		Derive work & efficiency				
38	4th Week		5/23/2022	8	Rankine cycle in P-V, T-S & H-S diagram				
39			5/24/2022		Derive work & efficiency of Rankine cycle				
40			5/25/2022		Effect of various end condition in Rankine cycle				
41			5/26/2022		Reheat cycle & Regenerative cycle				
42	5th Week		5/31/2022		Simple problems on Carnot vapour cycle & Rankine cycle.				
43	JUNE	1st Week	6/1/2022	8	Doubt clearing class on steam power cycle.				
44			6/2/2022		Modes of heat transfer & Fourier's law of heat conduction & thermal conductivity.				
45		2nd Week			6/6/2022	Newton's law of cooling & Radiation heat transfer (Stefan-Boltzman & Kirchoff's law)			
46					6/7/2022	Black body radiation, emissivity			
47					6/8/2022	absorptivity & transmissivity.			
48					6/9/2022	Doubt clearing class on heat transfer.			

