



**LESSON PLAN-(SUMMER-2023)**  
**SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR**

<b>Discipline- MECHANICAL</b>	<b>Semester-4TH</b>	<b>Name of teaching faculty- Er. A. CHAND</b>
<b>Subject- THERMAL II</b>	<b>No class allotted/ per week -4</b>	<b>SEM From date- 13.2.2023 TO 23.5.2023 No of weeks- 15</b>
<b>Week</b>	<b>Class day</b>	<b>Theory Topics</b>
WEEK 1	13.02.2023	Carnot vapor cycle & Problems on it
	14.02.2023	Rankine vapor cycle & Problems on it
	15.02.2023	Modification to rankine vapor cycles, Problems on it
	17.02.2023	Qualities of ideal working fluid for vapor power cycle
WEEK 2	20.02.2023	Binary vapor cycles
	21.02.2023	Class test
	22.02.2023	Concept of IC Engine
	24.02.2023	Otto cycle, Problems on it
WEEK 3	27.02.2023	Diesel cycle
	28.02.2023	Problems on it
	2.03.2023	Dual cycle
WEEK 4	3.03.2023	Problems on it
	6.03.2023	Comparison of otto, Diesel and Dual cycles
	9.03.2023	2S and 4S engines and differences thereof
	10.03.2023	ASSIGNMENTS
WEEK 5	20.03.2023	Hydrocarbon fuels
	21.03.2023	Combustion reactions
	23.03.2023	Concept of stoichiometric combustion
	27.03.2023	Enthalpy of formation , enthalpy of reaction
WEEK 6	28.03.2023	Heating values for fuels
	29.03.2023	Quality of IC engine fuels : Octane Number and Cetane Number
	31. 03.2023	ASSIGNMENTS
WEEK 7	3.04.2023	Octane Number, Cetane Number
	5.04.2023	Modes of heat transfer
	6.04.2023	Fourier law of heat conduction, thermal conductivity
	11.04.2023	Steady state heat conduction in solid plane wall
WEEK 8	12.04.2023	Steady state heat conduction in solid hollow cylinder
	13.04.2023	Steady state heat conduction in solid plane wall
	17.04.2023	Steady state heat conduction in solid hollow sphere
WEEK 9	19.04.2023	Stefan Boltzman law
	20.04.2023	Max planck's theory
	24.04.2023	absorption, reflection and transmission
WEEK 9	25. 04.2023	Kirchoff's law
	26.04.2023	Heat exchangers, types
	27.04.2023	introduction

	28.04.2023	Reversed carnot cycle
WEEK 10	1.05.2023	Ideal vapor compression refrigeration cycle
	2.05.2023	Actual vapor compression refrigeration cycle
	3.05.2023	Air , Gas refrigeration cycle
	4.05.2023	Modes of heat transfer
WEEK 11	8.05.2023	Fourier law of heat conduction, thermal conductivity
	10.05.2023	Steady state heat conduction in solid plane wall
	11.05.2023	Steady state heat conduction in solid hollow cylinder
	12.05.2023	Related problems on it
WEEK 12	15.05.2023	Convective heat transfer, Newton's law of cooling
	16.05.2023	Radiation heat transfer, Stefan Boltzman law
	17.05.2023	Theories of radiation : Maxwell's theory
	18.05.2023	Max planck's theory : black body radiation
WEEK 13	19.05.2023	Surface absorption, reflection and transmission
	22.05.2023	Kirchoff's law relating to spectral emissive power to absorptivity
	23.05.2023	Heat exchangers : concept , application, and classification
HOD SIGN. PRINCIPAL SIGN.		DEAN (Academic) SIGN.