

LESSON PLAN.

Academic Session :- 2022-23

Subject :-RAC , Subject code -Theory 5

Teacher :- SHEKHAR SUMAN PRADHAN (PTGF, MECHANICAL ENGINEERING DEPT.)

Total Period :

Theory :- 4p/week

SEMESTER:-5TH

MONTH	Week	DATE	UNIT NO/PERIOD ALLOTTED	Syllabus to be covered	Syllabus actually covered	Short fall	Signature
SEPTEMBER	4TH	19-09-2022	1.1, 1T	AIR REFRIGERATION CYCLE ,Definition of refrigeration and unit of refrigeration			
	4TH	20-09-2022	1.2,1T	Definition of COP			
	4TH	21-09-2022	1.2,1T	Refrigerating effect (R.E)			
	4TH	22-09-2022	1.3,1T	Principle of working of open and closed air system of refrigeration			
	5TH	26-09-2022	1.3.1, 1T	Calculation of COP of Bell-Coleman cycle			
	5TH	27-09-2022	1.3.1, 1T	numerical on Calculation of COP of Bell-Coleman cycle			
	5TH	28-09-2022	1.3.1, 1T	numerical on Calculation of COP of Bell-Coleman cycle			
	5TH	29/09/2022	2.1,1T	SIMPLE VAPOUR COMPRESSION REFRIGERATION SYSTEM , schematic diagram of simple vapors compression refrigeration system			
OCTOBER	3RD	10-10-2022	2.1,1T	Types Of simple vapors compression refrigeration system			
	3RD	10-11-2022	2.2.1,1T	Cycle with dry saturated vapors after compression.			
	3RD	10-12-2022	2.2.2,1T	Cycle with wet vapors after compression.			
	3RD	13/10/2022	2.2.3,1T	Cycle with superheated vapors after compression.			
	4TH	17/10/2022	2.2.4,1T	Cycle with superheated vapors before compression.			
	4TH	18/10/2022	2.2.5,1T	Cycle with sub cooling of refrigerant			
	4TH	19/10/2022	2.2.6,1T	Representation of above cycle on temperature entropy and pressure enthalpy diagram			
	4TH	20/10/2022	2.2.7,1T	Numerical on above (determination of COP,mass flow)			

NOVEMBER	5TH	26/10/2022	3.1,1T	VAPOUR ABSORPTION REFRIGERATION SYSTEM , Simple vapor absorption refrigeration system			
	5TH	27/10/2022	3.2,1T	Practical vapor absorption refrigeration system			
	6TH	31/10/2022	3.2,1T	Practical vapor absorption refrigeration system			
	1ST	11-01-2022	3.3,1T	COP of an ideal vapor absorption refrigeration system			
	1ST	11-02-2022	3.4,1T	Numerical on COP			
	1ST	11-03-2022	4.1,1T	REFRIGERATION EQUIPMENTS ,REFRIGERANT COMPRESSORS			
	2ND	11-07-2022	4.1.1,1T	Principle of working and constructional details of reciprocating and rotary compressors.			
	2ND	11-09-2022	4.1.2,1T	Centrifugal compressor only theory			
	2ND	11-10-2022	4.1.3,1T	Important terms.			
	2ND	14/11/2022	4.1.4,1T	Hermetically and semi hermetically sealed compressor.			
	3RD	15/11/2022	4.2.1,1T	CONDENSERS , Principle of working and constructional details of air cooled and water cooled condense			
	3RD	16/11/2022	4.2.2,1T	Heat rejection ratio			
	3RD	17/11/2022	4.2.3,1T	Cooling tower and spray pond.			
	3RD	21/11/2022	4.3.1,1T	EVAPORATORS ,Principle of working and constructional details of an evaporator			
	4TH	22/11/2022	4.3.2,1T	Types of evaporator			
	4TH	23/11/2022	4.3.3,1T	Bare tube coil evaporator, finned evaporator, shell and tube evaporator.			
	4TH	24/11/2022	5.1,1T	REFRIGERANT FLOW CONTROLS, REFRIGERANTS & APPLICATION OF REFRIGERANTS,EXPANSION VALVES			
	4TH	28/11/2022	5.1.1,1T	Capillary tube			
	5TH	29/11/2022	5.1.2,1T	Automatic expansion valve			
	5TH	30/11/2022	5.1.3,1T	Thermostatic expansion valve			
1ST	12-01-2022	5.2.1,1T	REFRIGERANTS ,Classification of refrigerants				
1ST	12-05-2022	5.2.2,1T	Desirable properties of an ideal refrigerant.				
2ND	12-06-2022	5.2.3,1T	Designation of refrigerant.				
2ND	12-07-2022	5.2.4,1T	Thermodynamic Properties of Refrigerants.				

DECEMBER	2ND	12-08-2022	5.2.5,1T	Chemical properties of refrigerants.			
	2ND	12-12-2022	5.2.6,1T	commonly used refrigerants, R-11, R-12, R-22, R-134a, R-717			
	3RD	13/12/2022	5.2.7,1T	Substitute for CFC			
	3RD	14/12/2022	5.3.1,1T	Applications of refrigeration ,cold storage			
	3RD	15/12/2022	5.3.2,1T	dairy refrigeration			
	3RD	19/12/2022	5.3.3,1T	ice plan			
	4TH	20/12/2022	5.3.4,1T	water cooler			
	4TH	21/12/2022	5.3.5,1T	frost free refrigerator			
	4TH	22/12/2022	6.1,1T	PSYCHOMETRICS & COMFORT AIR CONDITIONING SYSTEMS, Psychometric term			
	4TH	26/12/2022	6.2,1T	Adiabatic saturation of air by evaporation of water			
	5TH	27/12/2022	6.3,1T	Psychometric chart and uses.			
	5TH	28/12/2022	6.4,1T	Psychometric processes			
	5TH	29/12/2022	6.4.1,1T	Sensible heating and Cooling			
	JANUARY	5TH	01-02-2023	6.4.2,1T	Cooling and Dehumidification		
2ND		01-03-2023	6.4.3,1T	Heating and Humidification			
2ND		01-04-2023	6.4.4,1T	Adiabatic cooling with humidification			
2ND		01-05-2023	6.4.5,1T	Total heating of a cooling process			
2ND		01-09-2023	6.4.6,1T	SHF, BPF,			
3RD		01-10-2023	6.4.7,6.5,1T	Adiabatic mixing,Problems on above, Effective temperature and Comfort chart			
3RD		01-11-2023	7.1,1T	AIR CONDITIONING SYSTEMS ,Factors affecting comfort air conditioning			
3RD		01-12-2023	7.2,1T	Equipment used in an air-conditioning.			
3RD		16/1/2023	7.3,1T	Classification of air-conditioning system			
4TH		17/1/2023	7.4,1T	Winter Air Conditioning System			
4TH	18/1/2023	7.5,1T	Summer air-conditioning system.				