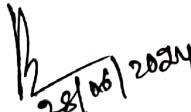


DEPARTMENT OF MECHANICAL ENGINEERING

LESSON PLAN

Discipline:- MECHANICAL	Class:3 rd Sem Mech Engg	Name Of Faculty:- Blswajit Mishra
Subject:- Thermal Engg-1	No Of Classes Allotted Per week:-4	No Of Weeks:-15
No. of week	No. of classes	Topic to be taught
1 st	1	Chapter-1 : Thermodynamic Systems (closed, open, isolated)
	2	Thermodynamic properties of a system (pressure, volume, temperature, entropy, enthalpy, Internal energy)
	3	Intensive and extensive properties, Units, thermodynamic processes
	4	Path, cycle, state, path function, point function, Property diagram
2 nd	5	Thermodynamic Equilibrium
	6	Chapter-2 Quasi-static Process
	7	Conceptual explanation of energy and its sources
	8	Work, heat and comparison between the two
3 rd	9	Mechanical Equivalent of Heat
	10	Principle of working and constructional details of an evaporator, Types of evaporator
	11	. Bare tube coil evaporator, finned evaporator, shell and tube evaporator
	12	Chapter-3 Capillary tube, Automatic expansion valve
4 th	13	. Thermostatic expansion valve
	14	Classification of refrigerants, Desirable properties of an ideal refrigerant.
	15	Designation of refrigerant.
	16	Thermodynamic Properties of Refrigerants, Chemical properties of refrigerants.
5 th	17	Thermodynamic Properties of Refrigerants, Chemical properties of refrigerants
	18	Applications of refrigeration: cold storage
	19	Dairy refrigeration, frost free refrigerator
	20	ice plant, water cooler
6 th	21	Chapter-4 Psychometric terms
	22	Adiabatic saturation of air by evaporation of water
	23	Psychometric chart and uses.
	24	Sensible heating and Cooling, Cooling and Dehumidification
7 th	25	Principle of working and constructional details of an evaporator, Types of evaporator
	26	. Bare tube coil evaporator, finned evaporator, shell and tube evaporator
	27	Chapter-5 Capillary tube, Automatic expansion valve
	28	. Thermostatic expansion valve
8 th	29	Classification of refrigerants, Desirable properties of an ideal refrigerant.
	30	Designation of refrigerant.
	31	Thermodynamic Properties of Refrigerants, Chemical properties of refrigerants.
	32	Dairy refrigeration, frost free refrigerator

9 th	33	Applications of refrigeration: cold storage
	34	Dairy refrigeration, frost free refrigerator
	35	ice plant, water cooler
	36	Chapter-6 Psychometric terms
10 th	37	Adiabatic saturation of air by evaporation of water
	38	Psychometric chart and uses.
	39	Sensible heating and Cooling, Cooling and Dehumidification
	40	Principle of working and constructional details of an evaporator, Types of evaporator
11 th	41	. Bare tube coil evaporator, finned evaporator, shell and tube evaporator
	42	Chapter-7 Capillary tube, Automatic expansion valve
	43	. Thermostatic expansion valve
	44	Classification of refrigerants, Desirable properties of an ideal refrigerant.
12 th	45	Designation of refrigerant.
	46	Thermodynamic Properties of Refrigerants, Chemical properties of refrigerants.
	47	commonly used refrigerants, R-11, R-12, R-22, R-134a, R-717, Substitute for CFC
	48	Applications of refrigeration: cold storage
13 th	49	Dairy refrigeration, frost free refrigerator
	50	ice plant, water cooler
	51	Chapter-8 Psychometric terms
	52	Adiabatic saturation of air by evaporation of water
14 th	53	Psychometric chart and uses.
	54	Sensible heating and Cooling, Cooling and Dehumidification
	55	. Thermostatic expansion valve
	56	Classification of refrigerants, Desirable properties of an ideal refrigerant.
15 th	57	Designation of refrigerant.
	58	Thermodynamic Properties of Refrigerants, Chemical properties of refrigerants.
	59	commonly used refrigerants, R-11, R-12, R-22, R-134a, R-717, Substitute for CFC
	60	Previous year question answer


 28/06/2024
 Prep by: Lect & Head, Mech Engg