

LESSON PLAN-2022		
SWAMI VIVEKANANDA SCHOOL OF ENGINEERING & TECHNOLOGY, BBSR		
DISCIPLINE- MECHANICAL	SEMESTER -5TH	NAME OF TEACHING FACULTY: R.K.SAHOO
SUBJECT- RAC	NO. CLASS ALLOTTED/PER WEEK -5	SEM from date- 15.9.2022 TO 22.12.2022 No. of weeks- 19TH
WEEK	CLASS DAY	THEORY TOPIC
1st	15.09.2022	AIR REFRIGERATION CYCLE.
	16.09.2022	Definition of refrigeration and unit of refrigeration.
	17.09.2022	Definition of COP, Refrigerating effect (R.E)
2ND	19.09.2022	Principle of working of open and closed air system of refrigeration.
	20.09.2022	Calculation of COP of Bell-Coleman cycle and numerical on it.
	21.09.2022	DO
	22.09.2022	SIMPLE VAPOUR COMPRESSION REFRIGERATION SYSTEM
	23.09.2022	schematic diagram of simple vapors compression refrigeration system'
3RD	26.09.2022	Types
	27.09.2022	Cycle with dry saturated vapors after compression.
	28.09.2022	Cycle with wet vapors after compression.
	29.09.2022	Cycle with superheated vapors after compression.
	30.09.2022	Cycle with superheated vapors before compression
4TH	1.10.2022	Cycle with sub cooling of refrigerant
5TH	6.10.2022	Representation of above cycle on temperature entropy
	7.10.2022	and pressure enthalpy diagram
6TH	10.10.2022	Numerical on above (determination of COP,mass flow)
	11.10.2022	DO
	12.10.2022	VAPOUR ABSORPTION REFRIGERATION SYSTEM
	13.10.2022	Simple vapor absorption refrigeration system
	14.10.2022	Practical vapor absorption refrigeration system
	15.10.2022	COP of an ideal vapor absorption refrigeration system
7TH	17.10.2022	Numerical on COP.
	18.10.2022	DO
	19.10.2022	REFRIGERATION EQUIPMENTS
	20.10.2022	REFRIGERANT COMPRESSORS
	21.10.2022	Principle of working and constructional details of reciprocating and rotary
8TH	26.10.2022	Centrifugal compressor only theory
	27.10.2022	Important terms.
	28.10.2022	Hermetically and semi hermetically sealed compressor.
	29.10.2022	DO
9TH	31.10.2022	CONDENSERS
	1.11.2022	Principle of working and constructional details of air cooled and water cooled
	2.11.2022	Heat rejection ratio
	3.11.2022	Cooling tower and spray pond.
	4.11.2022	DO
	5.11.2022	EVAPORATORS
10TH	7.11.2022	Principle of working and constructional details of an evaporator.
	9.11.2022	Types of evaporator
	10.11.2022	Bare tube coil evaporator, finned evaporator,
	11.11.2022	shell and tube evaporator.
11TH	14.11.2022	DO
	15.11.2022	REFRIGERANT FLOW CONTROLS,
	16.11.2022	REFRIGERANTS & APPLICATION OF REFRIGERANTS
	17.11.2022	EXPANSION VALVES

	18.11.2022	Capillary tube
	19.11.2022	Automatic expansion valve
12TH	21.11.2022	Thermostatic expansion valve
	22.11.2022	REFRIGERANTS
	23.11.2022	Classification of refrigerants
	24.11.2022	Desirable properties of an ideal refrigerant.
	25.11.2022	Designation of refrigerant.
13TH	28.11.2022	Thermodynamic Properties of Refrigerants
	29.11.2022	Chemical properties of refrigerants.
	30.11.2022	commonly used refrigerants, R-11, R-12, R-22, R-134a, R-717
	1.12.2022	Substitute for CFC
	2.12.2022	Applications of refrigeration
14TH	3.12.2022	cold storage
	5.12.2022	dairy refrigeration
	6.12.2022	ice plant
	7.12.2022	water cooler
	8.12.2022	frost free refrigerator
	9.12.2022	DO
15TH	12.12.2022	PSYCHOMETRICS & COMFORT AIR CONDITIONING SYSTEMS
	13.12.2022	Psychometric terms
	13.12.2022	Adiabatic saturation of air by evaporation of water
	13.12.2022	Psychometric chart and uses
	14.12.2022	Psychometric processes
	14.12.2022	Sensible heating and Cooling
16TH	14.12.2022	Cooling and Dehumidification
	15.12.2022	Heating and Humidification
	15.12.2022	Adiabatic cooling with humidification
	15.12.2022	Total heating of a cooling process
	16.12.2022	SHF, BPF
17TH	16.12.2022	Adiabatic mixing
	17.12.2022	Problems on above
	17.12.2022	Effective temperature and Comfort chart
	17.12.2022	DO
	19.12.2022	AIR CONDITIONING SYSTEMS
18TH	19.12.2022	Factors affecting comfort air conditioning.
	20.12.2022	Equipment used in an air-conditioning
	20.12.2022	Classification of air-conditioning system
	20.12.2022	Winter Air Conditioning System
19TH	21.12.2022	Summer air-conditioning system
	21.12.2022	Numerical on above
	22.12.2022	DO