

JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA
MECHANICAL ENGINEERING DEPARTMENT

Name of the Faculty: P. Baskey M. Sorcen	Session: 2022-23
Course code.: Th. 5	Course Name: R&AC
Program: Diploma	Department: Mechanical engg.
Semester: 5 th Sem	Section: M, /M ₂
Branch: MECHANICAL	

WEEK	PERIOD	UNIT	HOUR	Topic to be Covered
1	1	1	5	Definition of refrigeration and unit of refrigeration
	2			Definition of COP, Refrigerating effect
	3			Principle of working of open and closed air system of refrigeration
	4			Calculation of COP of Bell-Coleman cycle
2	5	1	5	Problem on Bell-Coleman cycle
	6			simple vapors compression refrigeration system
	7			schematic diagram of simple vapors compression refrigeration system
	8			simple vapors compression refrigeration cycle with dry saturated vapors after compression
3	9	1	5	simple vapors compression refrigeration cycle with wet vapors after compression
	10			simple vapors compression refrigeration cycle with superheated vapors after compression
	11			simple vapors compression refrigeration cycle with superheated vapors before compression
	12			simple vapors compression refrigeration cycle with sub cooling of refrigerant
4	13	2	10	temperature entropy and pressure enthalpy diagrams simple vapors compression refrigeration cycle
	14			Problem on simple vapors compression refrigeration cycle
	15			Problem on simple vapors compression refrigeration cycle
	16			Simple vapor absorption refrigeration system,

	46			SHF, BPF, Adiabatic mixing
	47			Problem on Psychometric processes
12	48			Problem on Psychometric processes
	49			Problem on Psychometric processes
	50	6	10	Effective temperature and Comfort chart
	51			Factors affecting comfort air conditioning.
13	52			Equipment used in an air-conditioning
	53			Summer air-conditioning system.
	54			Summer air-conditioning system.
	55			Winter Air Conditioning System
14	56			Winter Air Conditioning System
	57			Problem on Summer air-conditioning system.
	58			Problem on Summer air-conditioning system.
	59			Problem on Winter air-conditioning system.
15	60	7	10	Problem on Winter air-conditioning system.

M. Sorens

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