

SESSION:	WINTER 2023
BRANCH:	MECHANICAL ENGINEERING
SEMESTER:	5TH SEC-B
SUBJECT:	REFRIGERATION & AIR CONDITIONING TH-5

NAME OF THE FACULTY:	NARAYAN KAR
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SL NO.	MONTH	CHAPT. NO.	DATE	TOPICS TO BE COVERED	NO. OF ACADEMIC DAYS AVAILABLE FOR THE SUBJECT	% COVERED
1	AUGUST	1	5/8/2023	CH-1, I.1: Definition of refrigeration and unit of refrigeration.	16	30%
			8/8/2023	1.2: Definition of COP, Refrigerating effect (R.E.)		
			9/8/2023	1.3: Principle of working of open and closed air system of refrigeration		
			10/8/2023	Calculation of COP of Bell-Coleman cycle and numerical on it.		
			12/8/2023	PROBLEM		
			16/8/23	PROBLEM		
			17/8/23	PROBLEM		
		19/8/23	PROBLEM			
		21/8/23	2.1: schematic diagram of simple vapors compression refrigeration system'			
		22/8/23	2.2: Types Cycle with dry saturated vapors after compression.			
		23/8/23	Cycle with wet vapors after compression			
		24/8/23	PROBLEM			
		26/8/23	PROBLEM			
		28/8/23	2.3: Cycle with superheated vapors after compression.			
		29/8/23	PROBLEM			
31/8/23	2.4: Cycle with superheated vapors before compression. 2.2.5 Cycle with sub cooling of refrigerant					
2		2	2/9/2023	2.6: Representation of above cycle on temperature entropy and pressure enthalpy diagram	16	30%
			4/9/2023	CH-3, B.1: Simple vapor absorption refrigeration system		
			5/9/2023	B.2: Practical vapor absorption refrigeration system		
			7/9/2023	Practical vapor absorption refrigeration system		

2	SEPT.	3	9/9/2023	3.3: COP of an ideal vapor absorption refrigeration system	16	30%				
			11/9/2023	3.4 PROBLEM						
			12/9/2023	PROBLEM						
		4	13/9/23	CH-4,4.1: Principle of working and constructional details of reciprocating and rotary compressors.						
			16/9/23	4.1.2: Centrifugal compressor only theory						
			21/9/23	4.1.3: Important terms						
			23/9/23	4.1.4: Hermetically and semi hermetically sealed compressor.						
			25/9/23	4.2: Principle of working and constructional details of air cooled and water cooled condenser						
			26/9/23	4.2.2: Heat rejection ratio						
			27/9/23	4.2.3: Cooling tower and spray pond.						
			28/9/23	4.3: Principle of working and constructional details of an evaporator.Types of evaporator.Bare tube coil evaporator, finned evaporator, shell and tube evaporator						
		5	30/9/23	5.1 & 5.2 EXPANSION VALVES ,REFRIGERANTS						
		3	OCT.	5			3/10/2023	5.3 Applications of refrigeration	9	17%
							4/10/2023	CH-6,6.1:Psychometric terms		
				6			5//10/23	Psychometric terms		
7/10/2023	6.2: Adiabatic saturation of air by evaporation of water 6.3:Psychometric chart and uses.									
9/10/2023	6.4: Psychometric processes Sensible heating and Cooling									
10/10/2023	Cooling and Dehumidification									
11/10/2023	Heating and Humidification									
12/10/2023	Adiabatic cooling with humidification									
31/10/23	Total heating of a cooling process SHF, BPF									
6	1/11/2023				Adiabatic mixing Problems on above					
	2/11/2023	PROBLEM								
	4/11/2023	PROBLEM								
	6/11/2023	PROBLEM								
	7/11/2023	PROBLEM								
	8/11/2023	6.5: EFFECTIE TEMPRATURE AND COMFORT CHART								
	7	9/11/2023	CH-7,7.1: Factors affecting comfort air conditioning. .							
12/11/23		7.2: Equipment used in an air-conditioning								
4	NOV.			12	23%					

7	14/11/23	7.3: Classification of air-conditioning system 7.4: Winter Air Conditioning System	12	23%
	15/11/23	7.5: Summer air-conditioning system. Numerical on above		
	16/11/23	7.5: Summer air-conditioning system. Numerical on above		
	18/11/23	7.5: Summer air-conditioning system. Numerical on above		

BRIEF SUMMARY OF THE PLAN

SL. NO.	MONTH	UNIT/CHAPTER TO BE COVERED	% COVERAGE
1	AUGUST	CHAPTER NO .- 1 & 2	30%
2	SEPTEMBER	CHAPTER NO .- 2 , 3 , 4 & 5	30%
3	OCTOBER	CHAPTER NO .- 5 & 6	17%
4	NOVEMBER	CHAPTER NO .- 6 & 7	23%

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3/8/23

signature of HOD

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3/8/23

signature of Principal

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