
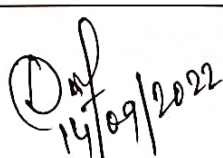



# Lesson Plan.

Discipline:		Semester:		Name of the Teaching Faculty:	
MECHANICAL		5TH		Er. BIBHABAREE SAMAL	
Subject: 2		No. of days/per week class allotted: 4 Periods		From date: 15/09/2022	
To date: 22/12/2022					
No of weeks: 15					
REFRIGERATION AND AIR CONDITIONING (TH-5)					
Month	Week	Availability of Classes	Class Day	Theory Topics to be covered	
September	1	1	16.09.2022	Briefing about the syllabus <b>Chapter 1-Air refrigeration cycle</b> ,Definition of refrigeration,unit of refrigeration, COP,Refrigeration effect	
September	2	4	19.09.2022	Open and closed air refrigeration cycle.Air refrigeration working on reversed Carnot cycle	
			21.09.2022	COP of Bell Coleman cycle	
			21.09.2022	Numerical on COP calculation	
			23.09.2022	Revision class	
September	3	4	26.09.2022	<b>Chapter 2-Vapour Compression Refrigeration System.</b> Mechanism of simple VC Refrigeration system,Types	
			28.09.2022	Cycle with dry saturated vapour after compression with P-V and T-S diagram	
			28.09.2022	Cycle with wet vapour after compression with P-V and T-S diagram	
			30.09.2022	Cycle with super heated vapour after compression with P-V and T-S diagram	
October	4	0	NA		
October	5	4	10.10.2022	Cycle with super heated vapour before compression with P-V and T-S diagram .Cycle with sub cooling of refrigerant with P-V and T-S diagram.	
			12.10.2022	Numerical	
			12.10.2022	Numerical & Revision class	
			14.10.2022	<b>CLASS TEST -1</b>	
October	6	4	17.10.2022	<b>Chapter 3-Simple Vapour Absorption Refrigeration System mechanism</b> (diagram and components)	
			19.10.2022	Working of simple vapour absorption refrigeration system	
			19.10.2022	Practical VA refrigeration system diagram and components, Working of practical VA refrigeration system.	
			21.10.2022	COP of vapour absorption refrigeration system Numerical on COP calculation.	
October	7	4	24.10.2022	Advantages and disadvantages of VA system over VC system, Revision Class	
			26.10.2022	<b>Chapter 4 –Refrigeration Equipments</b> classifications of refrigerant Compressors, Important terms	
			26.10.2022	Working of Reciprocating compressor	
			28.10.2022	Working of Rotary compressor	
November	8	3	02.11.2022	Working of centrifugal compressor, Hermatically and semi hermatically sealed compressor	
			02.11.2022	Air cooled condenser, water cooled condenser, Heat rejection ratio.	
			04.11.2022	Heat rejection ratio. (4.2.2)	

November	9	4	07.11.2022	Cooling tower, spray pond (4.2.3)
			09.11.2022	Working and constructional details of an evaporator and types
			09.11.2022	Bare tube coil evaporator, finned evaporator, shell and tube evaporator
			11.11.2022	Revision class
November	10	3		<b>Chapter 5-Refrigerant Flow controls, Refrigerants and applications of refrigerants</b>
			14.11.2022	Functions of Expansion device, Capillary tube.
			16.11.2022	Automatic Expansion valve,
			16.11.2022	Thermostatic Expansion valve
			17.11.2022	Internal Assessment
			18.11.2022	Internal Assessment
November	11	4	19.11.2022	Internal Assessment
			21.11.2022	Classification of refrigerants, designation of refrigerants
			23.11.2022	Desirable properties of an ideal refrigerant
			23.11.2022	Designation of refrigerants, Thermal and chemical properties of refrigerants
November	12	3	25.11.2022	Commonly used refrigerants R-11, R-12, R-22, R-134a, R-717 Substitute for CFC
			28.11.2022	Application of refrigerant, cold storage, dairy refrigeration, ice plant, water cooler, frost free refrigerator
			30.11.2022	Revision Class & CLASS TEST – 2
December	13	1	30.11.2022	<b>Chapter 6-Psychrometrics and Comfort air conditioning.</b> Psychrometric terms
			02.12.2022	Adiabatic saturation of air by evaporation of water
			05.12.2022	Psychrometric chart and use
			07.12.2022	Sensible heating and sensible cooling
December	14	4	07.12.2022	Cooling and dehumidification, Heating and Humidification with numerical
			09.12.2022	Adiabatic cooling with humidification with numerical
			12.12.2022	Total heating and cooling, SHF, BPH with numerical
			14.12.2022	Adiabatic mixing with numerical
December	15	4	14.12.2022	Effective temperature and comfort chart. Factor affecting comfort conditions
			16.12.2022	Revision Class
			19.12.2022	<b>Chapter 7-Air Conditioning System</b> Equipments used in air conditioning system, classification.
			21.12.2022	Winter air conditioning System with numerical
December	16	3	21.12.2022	Summer air conditioning System with numerical
			Extra Class	Revision Class & Class Test III

  
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