SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Descipline: Mechanical	Semester: 5th	Name of the Teaching Faculty: Ashutosh Satpathy
Subject: RAC	No of Days/per week class allotted: 05	Semester from Date: 1.7.24 to Date: 18.11.24 No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Definition and unit of Refrigeration
	2nd	Definition of COP and (R.E.)
	3rd	Principle and working of Bell-Coleman cycle and its
	4th	numerical
	5th	—DO—
2nd	1st	—DO—
	2nd	—DO—
	3rd	Schematic Diagram of simple
	4th	vapour compression Refrigeration
	5th	system and its types
3rd	1st	—DO—
	2nd	Cycle with Dry saturated vapour after
	3rd	compression
	4th	Wet vapour after compression
	5th	superheated vapour before compression
4th	1st	cycle with sub cooling Refrigerant.
	2nd	Cycle temperature entropy and pressure
	3rd	enthalpy diagram.
	4th	—DO—
	5th	Numerical on above.
5th	1st	—DO—
	2nd	Simple vapor absorption Refrigeration
	3rd	—DO—
	4th	Practical vapour absorption R.S.
	5th	COP of Ideal VARS.

A. Satpathy
Sign of Faculty

HOD

Principal 22/6/24

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Subject:	No of Days/per week class allotted:	Semester from Date: to Date: No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Numerical on COP
	2nd	—Do—
	3rd	Define working principle of reciprocating and
	4th	Rotary compressor.
	5th	Centrifugal compressor
2nd	1st	Hermetically and semi hermetically
	2nd	sealed compressor
	3rd	—Do—
	4th	working and construction details of
	5th	air cooled and water cooled
3rd	1st	condensor.
	2nd	—Do—
	3rd	Heat rejection Ratio
	4th	Cooling tower
	5th	Spray pond.
4th	1st	working and construction details of
	2nd	evaporator.
	3rd	Types of an evaporator.
	4th	Bare tube coil evaporator
	5th	finned evaporator
5th	1st	shell and tube evaporator.
	2nd	Expension valves (Cappilary tube)
	3rd	Automatic expansion valve
	4th	thermostatic expansion valve.
	5th	Classify and properties of Refrigerant

A. Lecturer
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Subject: RAC	No of Days/per week class allotted: 05	Semester from Date: to Date: No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Designation of Refrigerant
	2nd	—DO—
	3rd	thermodynamic properties of Refrigerant
	4th	Chemical properties of Refrigerant.
	5th	—DO—
2nd	1st	Substitute for CFC.
	2nd	Cold storage
	3rd	Dairy refrigeration.
	4th	ICE plant
	5th	water cooler
3rd	1st	frost free refrigerator.
	2nd	Psychometric terms and properties
	3rd	Psychrometric chart and uses.
	4th	Sensible heating and cooling.
	5th	Cooling and dehumidification.
4th	1st	Heating and humidification.
	2nd	Adiabating cooling with humidification
	3rd	total heating of cooling process
	4th	SHF, BPF.
	5th	Adiabatic Mixing
5th	1st	—DO—
	2nd	Effective temp. and comfort chart.
	3rd	Factors affecting air condition.
	4th	Equipment used in air conditioning
	5th	winter Air conditioning.

A Satpathy
Sign of Faculty

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SYNERGY POLYTECHNIC, BBSR

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Descipline:	Semester:	Name of the Teaching Faculty:
Subject:	No of Days/per week class allotted:	Semester from Date: to Date: No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	— DO —
	2nd	Summer Air conditioning system
	3rd	— DO —
	4th	Numerical Problem
	5th	— DO —
2nd	1st	
	2nd	
	3rd	
	4th	
	5th	
3rd	1st	
	2nd	
	3rd	
	4th	
	5th	
4th	1st	
	2nd	
	3rd	
	4th	
	5th	
5th	1st	
	2nd	
	3rd	
	4th	
	5th	

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