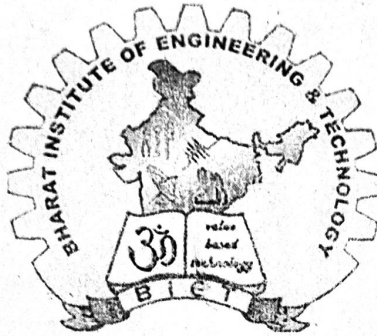


5th Mech 'A'

# BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

SIVARAM VIHAR, GHATAKESWAR HILLS  
MOHADA, BERHAMPUR (GM.)



## STUDENT'S ATTENDANCE REGISTER

Time	9:05	10:15	11:35		
Day	9:55	11:35	12:25		
MON		✓			
TUES	✓				
THUR	✓				
SAT			✓		

Year/ Session	2022 (Winter) 15.9.22 to 22-12-22
Semester & Branch	Mechanical & 5th Sem
Subject with Code	RAC
Name of the Faculty Member	Chetan K.V. Pradhan

# B.I.E.T.



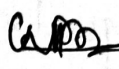
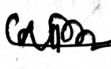
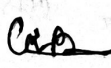
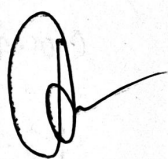

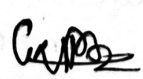
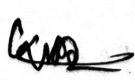
## SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
<p><u>CHAPTER: 1</u></p> <p><u>AIR REFRIGERATION CYCLE</u></p>			
<p>→ 1.1) Definition of Refrigeration &amp; unit of Refrigeration</p>	15.9.22	<i>[Signature]</i>	
<p>1.2) Definition of COP, Refrigeration Effect (R.E)</p>	15.9.22	<i>[Signature]</i>	
<p>1.3) Principle of working of open &amp; closed air system of Refrigeration.</p>	19.9.22	<i>[Signature]</i>	
<p>1.3.1) Calculation of COP of Bell-Coleman cycle &amp; numerical on it.</p>	20.9.22	<i>[Signature]</i>	<i>[Signature]</i>
<p><u>CHAPTER-2</u></p> <p><u>(2) SIMPLE VAPOUR COMPRESSION REFRIGERATION SYSTEM</u></p>			
<p>2.1) Schematic diagram of simple vapour compression refrigeration system.</p>	22.9.22	<i>[Signature]</i>	
<p>2.2) Types</p>	26.9.22	<i>[Signature]</i>	
<p>2.2.1) cycle with dry saturated vapour after compression</p>			

*Seen*  
*Indyuu* 12.9.22

# B.I.E.T.

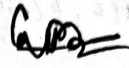
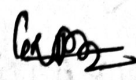
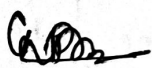
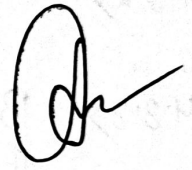

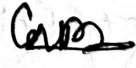
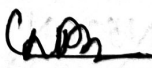

## SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
2.2.2) Cycle with wet vapour after compression	27.9.22		
2.2.3) Cycle with superheated vapour after compression	29.9.22		
2.2.4) Cycle with superheated vapours before compression	1.10.22		
2.2.5) Cycle with sub-cooling refrigerant	13.10.22		
2.2.6) Representation of above cycle by temp. & entropy with pressure entropy diagram	15.10.22		
2.2.7) Numerical on above (determining its COP & Mass flow)	17.10.22		
<u>3.0</u> VAPOUR ABSORPTION REFRIGERATION SYSTEM			
3.1) Simple vapour absorption refrigeration system	18.10.22		
3.2) Practical vapour absorption refrigeration system.	20.10.22		




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## SYLLABUS COVERAGE




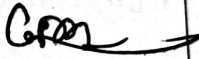

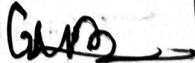
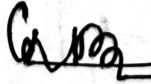
TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
3.3) COP of an ideal vapour absorbing refrigerating system	22.10.22		
3.4) Numerical on COP	25.10.22 27.10.22		
<b>4.0) REFRIGERATION EQUIPMENT</b>			
<b>4.1) REFRIGERATION COMPRESSOR</b>			
4.1.1) Principle working & constructional details of reciprocating and rotary compressor	1.11.22		
4.1.2) Centrifugal compressor only theory.	3.11.22		
4.1.3) Important terms	5.11.22		
4.1.4) Hermetically & semihermetically sealed compressor	7.11.22		
<b>4.2) CONDENSER</b>			
4.2.1) Principle of working & constructional details of air cooled & water cooled condenser	10.11.22		

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## SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
4.2.2) Heat rejecting ratio	12.11.22	<i>Caron</i>	
4.2.3) Cooling tower & Spray pond	14.11.22	<i>Caron</i>	
4.3) <u>EVAPORATORS</u>			
4.3.1) Principle of working & constructional detail of any evaporator	14.11.22	<i>Caron</i>	
4.3.2) Types of evaporator	15.11.22	<i>Caron</i>	
4.3.3) Bare tube coil evaporator, Finned evaporator, shell & tube evaporator.			
⑤ <u>REFRIGERANT FLOW CONTROLS, REFRIGERANTS &amp; APPLICATIONS OF REFRIGERANT</u>			
5.1) <u>EXPANSION VALVE</u>	17.11.22	<i>Caron</i>	
5.1.1) Capillary tube			
5.1.2) Automatic expanding valve			
5.1.3) Thermostatic expanding valve			
5.2) <u>REFRIGERANTS</u>			
5.2.1) Classification of refrigerants	19.11.22	<i>Caron</i>	


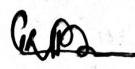
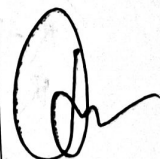
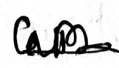

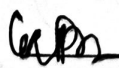

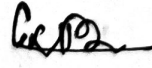


# B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
5.2.2) Desirable Properties of an ideal refrigerant.	21.11.22		
5.2.3) Designation of refrigerant	22.11.22		
5.2.4) Thermodynamic Properties of refrigerants			
5.2.5) Chemical Properties of refrigerants	24.11.22		
5.2.6) Commonly used refrigerants R-11, R-12, R-22, R-134a, R-717			
5.2.7) Substitute for CFC	24.11.22		
5.3) APPLICATION OF REFRIGERANT			
5.3.1) Cold storage	26.11.22		
5.3.2) Dairy refrigeration			
5.3.3) Ice Plant			
5.3.4) Water cooler	28.11.22		
5.3.5) Frost free refrigeration			





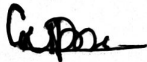
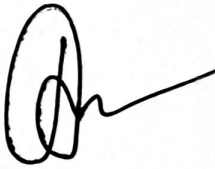
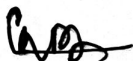


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## SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
<b>6) PSYCHOMETRICS &amp; COMFORT AIR CONDITIONING SYSTEM</b> <hr style="border: 1px wavy black;"/>			
6.1) Psychometric terms	29.11.22		
6.2) Adiabatic saturation of air by evaporation of water	1.12.22		
6.3) Psychometric chart & uses.			
6.4) Psychometric process			
6.4.1) Sensible heating & cooling	3.12.22		
6.4.2) Cooling & dehumidification			
6.4.3) Heating & Humidification			
6.4.4) Adiabatic cooling with humidification	5.12.22		
6.4.5) Total heating or a cooling process	6.12.22		
6.4.6) SHF, BPF	8.12.22		
6.4.7) Adiabatic Mixing	10.12.22		
6.4.8) Problem on above	12.12.22		
6.5) Effective temp. & Comfort Chart	13.12.22		

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## SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
⑦ <u>AIR CONDITIONING SYSTEM</u>			
7.1) Factors affecting comfort air conditioning	15.12.22		
7.2) Equipment used in an air-conditioning	17.12.22		
7.3) Classification of air-conditioning system	19.12.22		
7.4) Winter air conditioning system	20.12.22		
7.5) Summer air-conditioning system	22.12.22		
7.6) Numerical on above	<del>Extra class</del> 22.12.22		
	Seen 12.9.22	