Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BVOC- SEMESTER–I EXAMINATION – WINTER 2022

Subject Code:21110404   **Date:01-03-2023**
Subject Name:Refrigerants
Time:10:30 AM TO 12:30 PM   **Total Marks:50**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	(a)	Explain thermodynamic properties of a refrigerant.	05
	(b)	Explain Chemical properties of a refrigerant.	05
Q.2	(a)	What are the procedure to keep your workplace safe? Explain in brief	05
	(b)	Define: Refrigerant. Enlist different types of refrigerant available in market.	05
		OR	
	(b)	Explain the difference between Azeotropic and Zeotropic Mixture?	05
Q.3	(a)	Enlist alternative refrigerants to replace CFCs and write key requirement to Use R-134a as Alternative to R-12.	05
	(b)	Enlist properties of Freon 12 Refrigerant.	05
		OR	
Q.3	(a)	Give the properties of a good refrigerants.	05
	(b)	Write short note on effect of Global Warming.	05
Q.4	(a)	Write a short note on Classification of Refrigerants.	05
	(b)	Explain Ozone Depletion Potential and Global Warming Potential.	05
		OR	
Q.4	(a)	Determine the refrigerant number from the given chemical formula (i) Dichloro - Tetrafluro Ethane (C2Cl2F4) (ii) Difluro-Monochloro-Methane (CHClF2)	05
	(b)	Explain relationship between Climate Change and Global Public Health.	05
Q.5	(a)	Briefly explain any one refrigerant from following: 1) Ammonia 2) Carbon Dioxide	05
	(b)	Enlist the safe working properties of Ideal Refrigerants and explain any two of them.	05
		OR	
Q.5	(a)	Explain the selection criteria of best refrigerant according to application.	05
	(b)	Give example of primary and secondary refrigerants used in various industries.	05

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