

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

BVOC- SEMESTER- I EXAMINATION – SUMMER 2023

**Subject Code:21110404**

**Date:03-08-2023**

**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 azeotropic and zeotropic.	05
	(b) Explain thermodynamic properties of refrigerants.	05
Q.2	(a) What is anti-freeze solution? Explain it in details.	05
	(b) Enlist the Requirement for refrigerant	05
<b>OR</b>		
	(b) Elaborate the selection procedure of refrigerant.	05
Q.3	(a) Explain how the refrigerants are important.	05
	(b) Explain function of oil in a refrigeration unit and type of Refrigerant oil used.	05
<b>OR</b>		
Q.3	(a) Differentiate between primary and secondary refrigerants.	05
	(b) Explain the properties of lubricating oils.	05
Q.4	(a) Give the application of commonly used refrigerant.	05
	(b) Discuss cooling media and liquid absorbents.	05
<b>OR</b>		
Q.4	(a) Enlist the different types of refrigerants also write down the Properties for the same.	05
	(b) What are the major Causes of Global Warming?	05
Q.5	(a) Named Future Refrigerants to Replace CFCs and write key requirement to Use R-134a as Alternative to R-12.	05
	(b) Explain physical properties of refrigerants.	05
<b>OR</b>		
Q.5	(a) List gases which are responsible for the greenhouse effect. What would have happened if the greenhouse gases were totally missing in the earth's atmosphere?	05
	(b) Define Green-house effect. Explain Green-house effect.	05

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