

GUJARAT TECHNOLOGICAL UNIVERSITY**B.VOC - SEMESTER– IV EXAMINATION – SUMMER 2024****Subject Code: 21140403****Date:20-05-2024****Subject Name: RAC Materials****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) Enlist the properties of lubrication oils. | 05 |
| | (b) Explain in brief need of lubrication in refrigeration system. | 05 |
| Q.2 | (a) Explain material used for evaporator in detail. | 05 |
| | (b) Explain the effect of refrigerant on lubricant density. | 05 |
| OR | | |
| | (b) Write Short note on solvent and cleaning. | 05 |
| Q.3 | (a) Write down short note on insulated system. | 05 |
| | (b) Write Short note on material used in refrigeration duct. | 05 |
| OR | | |
| Q.3 | (a) Explain properties of ideal insulating materials in detail. | 05 |
| | (b) Explain material used for compressor in detail. | 05 |
| Q.4 | (a) Write Short note on cooling tower materials. | 05 |
| | (b) Write a short note on Glass fibre. | 05 |
| OR | | |
| Q.4 | (a) Explain jointing material and synthetic repair materials. | 05 |
| | (b) List down the types of expansion devices. | 05 |
| Q.5 | (a) Write down advantage of insulation and factor affecting on thermal conductivity. | 05 |
| | (b) Write short note on Natural Insulator. | 05 |
| OR | | |
| Q.5 | (a) Discuss importance of heat insulation for Air-Conditioning. | 05 |
| | (b) Write short note on Thermal Acoustic and Fire Insulation | 05 |
