

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 09

B.Voc. (AS) (Sem.-4)

AUTOMOTIVE REFRIGERATION & AIR-CONDITIONING

Subject Code : 6.GV.06

M.Code : 79993

Date of Examination : 07-07-22

Time : 3 Hrs.

Max. Marks : 30

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying ONE mark each.**
2. **SECTION-B contains FIVE questions carrying TWO & HALF marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying FIVE marks each and students have to attempt any TWO questions.**

SECTION-A

1. **Write briefly :**
 - a) Define Carnot Cycle.
 - b) List the applications of refrigeration and air conditioning.
 - c) Brief about refrigerant oils.
 - d) Write about the future refrigerants.
 - e) What are different components of air conditioning systems?
 - f) Define comfort conditions.
 - g) Illustrate semiautomatic temperature control systems.
 - h) Write about coil condition line.
 - i) Brief about initial vehicle inspection for automotive RAC.
 - j) Write short note on leak detection and detectors.

SECTION-B

2. What are the effects of various operating parameters on performance of RAC?
3. What are different types of refrigerants used in automobiles? Also discuss about their properties.
4. Describe sensible heat factor and bypass factor.
5. Discuss about outside and inside design consideration for load analysis.
6. Explain air conditioning electrical and electronic control.

SECTION-C

7. Discuss in detail about simple vapour compression cycle with neat diagram.
8. Write note on :
 - a) Factors forming the load on RAC system, and
 - b) AC ducts and air filters.
9. Explain the process of removing and replacing components in AC for automobiles.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.