



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY
Question Paper

B.Sc. Major Examinations 2022
(Under CBCS Pattern)
Semester - VI
Subject : AUTOMOBILE MAINTENANCE
Paper : C 13 - T
Automotive Air Conditioning

Full Marks : 40
Time : 2 Hours

*Candidates are required to give their answers in their own words as per as practicable.
The figures in the margin indicate full marks.*

Theory

Group - A

Answer any **four** of the following questions :

5×4=20

1. (i) Write down few point good properties of refrigerant? 3+2
(ii) What is dry bulb temperature?
2. (i) What do you mean by C.O.P? 2+3
(ii) What is wet bulb temperature?
3. (i) What is compressor?
(ii) Give the Classification of compressor.

- (iii) Write down about reciprocating compressor. 2+1+2
4. (i) What is Condenser? 2+3
- (ii) Give the classification of condenser and write down few points of them.
5. (i) What is capillary tube? 2+2+1
- (ii) What is the main function of evaporator?
- (iii) What do you mean by refrigeration system?
6. (i) Write down few point effect of air condition on fuel economy. 3+2
- (ii) What do you mean by 1 ton AC?

Group - B

Answer any *two* of the following questions : 10×2=20

7. The capacity of a refrigerator is 200TR, When working between 6°C and 25°C determine the ice produce per day from water at 25°C. Also find the power required to drive the unit.

Assume the cycle operates on reversed Carnot cycle and latent heat of ice is 335 kJ/kg 10

8. (i) Find the COP of a refrigerator system, if the work input is 80kJ/kg and refrigeration effect product is 160kJ/kg.
- (ii) Give the classification of refrigerant. 8+2
9. Short note on : 2.5×4
- (i) Relative humidity
- (ii) Dew point temperature
- (iii) Vapour
- (iv) Humidity

10. Write down few points of following refrigerant

2.5×4

- (i) NH_3
 - (ii) F_{12}
 - (iii) SO_4
 - (iv) CO_2
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