

B. Arch. Part iii
5th Semester Final Examination, 2012

Subject - Mechanical Services Code No. ME – 501/A Branch – B. Arch.

Time: 2 hours.

Full Marks: 35

- i) Answer any four questions
- ii) The questions are of equal value

1. Discuss with suitable sketch the difference between a Heat Engine, Refrigerator and Heat Pump.
2. What is the term Dry Air? State the composition of Dry Air. What are the molecular mass and gas constant of Dry Air? What are molecular mass and gas constant for Water Vapour?
3. Describe Psychometric Relations for following:
 - i) Specific Humidity.
 - ii) Degree of Saturation.
 - iii) Relative Humidity.
4. What is Refrigerant? State the desirable properties of Ideal Refrigerant. Discuss the Classification of Refrigerants.
5. What do you mean by Air Conditioning System? Discuss the factors affecting Comfort Air Conditioning.
6. Discuss with dimensions and sketches of critical parts of Light Elevator for load capacity of 1000 Kgs.