

## Question Bank (G scheme)

Name of subject: Plant Utilities

Subject code:17425

Semester: Fourth

Unit Test:II

Course: CH

### Chapter 3 – Refrigeration (24marks)

#### 3 marks question

1. Define tons of refrigeration and COP.
2. What is R-22 refrigerant
3. What is CFC refrigerant. Give eg
4. What is HCFC refrigerant? Give eg.
5. What is HFC refrigerant? Give eg
6. In an absorption type refrigeration system, heating ,cooling and refrigeration takes place at 100°C,20°C and -5°C respectively. Find theoretical COP
7. Write industrial application of refrigeration

#### 4 marks question

8. Give 6 properties of ideal refrigerant
9. Explain vapour compression refrigeration system
10. Draw the diagram of vapour compression refrigeration system.
11. Give the classification of refrigerants with eg
12. Write down important properties of CO<sub>2</sub> as refrigerant
13. Write down important properties of NH<sub>3</sub> as refrigerant
14. Define secondary refrigerant. Give eg

### Chapter 4 – Air (6marks)

#### 3 marks question

15. Give the uses of process air

#### 4marks question

16. Explain methods to get instrument air.

### Chapter 5 Non steam heating system (4marks)

#### 3 marks question

17. Explain the property of any one thermic fluid

#### 4 marks question

18. Give 4 advantages of thermic fluid over steam
19. Explain the working of thermic fluid heater

### Chapter 6 - Psychrometry(16marks)

#### 3 marks question

20. Define absolute humidity, relative humidity, dry bulb temperature
21. Explain evaporative cooling

#### 4 marks question

22. Draw the diagram of induced draft cooling tower and mark the parts
23. Draw the diagram of forced draft cooling tower and mark the parts
24. Explain the parts of a cooling tower.
25. Explain the use of humidity chart.