

C 60587

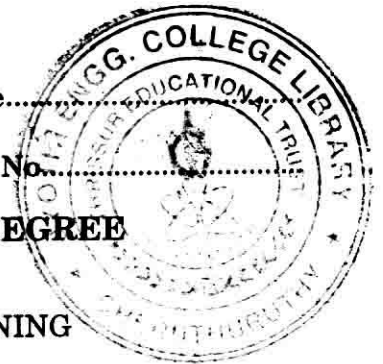
(Pages : 2)

Name.....

Reg. No.....

**EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, APRIL 2014**

ME 09 801—REFRIGERATION AND AIR CONDITIONING



Time : Three Hours

Maximum : 70 Marks

Part A

*Answer all questions.
Each question carry 2 marks.*

1. What is the COP of a heat pump operating between 300 K and 260 K ?
2. Define the unit of refrigeration.
3. Write the role of water in ammonia refrigeration system and lithium Bromide refrigeration system.
4. What is the difference between GSHF and RSHF ?
5. Mention two aspects to be considered for locating Return air openings.

(5 × 2 = 10 marks)

Part B

*Answer any four questions.
Each question carry 5 marks.*

1. Explain about jet refrigeration system.
2. Explain Bell coleman cycle.
3. Explain the advantages of vapour compression over air refrigeration system.
4. What is meant by intercooling ? Explain.
5. Explain :
(a) By pass factor. (b) ADP.
6. What are the advantages of multi stage compressor ?

(4 × 5 = 20 marks)

Part C

*Answer all questions.
Each question carry 10 marks.*

1. Briefly explain the Boot strap air refrigerain cycle with a simple sketch.

Or

2. Explain in brief about carnot's refrigeration cycle and the limitations of reversed carnot cycle.

Turn over

3. Describe about refrigerants and their properties in detail.

Or

4. Explain about working principles of vapour absorption system.

5. Write a short notes on the salient features of :

(a) Domestic comfort Account.

(b) Industrial Account.

Or

6. What are the various psychrometric processes that are achievable in an air washer system ?

7. Explain the working principle and advantages of reciprocating compressors.

Or

8. Explain about the different types of evaporators used in refrigeration application.

(4 × 10 = 40 marks)