

S.B. Roll No.....

**REFRIGERATION AND AIR CONDITIONING**  
**5<sup>th</sup> Exam/RAC/6853/Jun'2021**  
**(For 2018 Batch Onwards)**

**Duration: 1.15Hrs.**

**M.Marks:25**

**SECTION-A**

**Q1. Attempt any three questions.**

**3x5=15**

- i. Explain Refrigeration and its applications.
- ii. What are unit of refrigeration? Calculate its value in Kcal/hr.
- iii. Explain working of rotary compressor.
- iv. What is the difference between wet bulb temp and dry bulb temp?
- v. Discuss the effect of sub-cooling on COP of a vapour compression refrigeration system. Would you desire large sub-cooling and why?
- vi. Explain the term "Effective temperature".
- vii. What are air refrigeration systems? Write its advantages and disadvantages?

**SECTION-B**

**Q2. Attempt any one question.**

**1x10=10**

- a. Draw the flow diagram of vapour compression refrigeration system and explain its working in detail.
- b. Draw a neat diagram of ammonia water absorption system and explain its working.
- c. What are the desirable properties of refrigerants?
- d. Discuss their importance in designing air conditioning system.