

# RED SEAL STUDY GUIDE REFRIGERATOR & AC MECHANIC YEAR 3

**25 EXAM PREP QUESTIONS  
WITH ANSWERS**



APPRENTICES | INSTRUCTORS | INSTITUTES

[RedSealStudyGuide.ca](http://RedSealStudyGuide.ca)

UNITY CREST SOLUTIONS INC.

# INTRODUCTION

## **Introducing the Red Seal Study Guide – Refrigerator & AC Mechanic.**

Ready to dive into the world of Refrigerator & AC Mechanic? Meet your ultimate companion – the Red Seal Study Guide for Refrigerator & AC Mechanic. This practical booklet is your go-to practice tool to conquer your Refrigerator & AC Mechanic exam.

Presented in an easy Q&A format, this guide lets you preview the kinds of questions you'll tackle on the real exam day. Consider it a sneak peek into what's coming your way!

Inside its pages, you'll find a treasure trove of Refrigerator & AC Mechanic essentials. It's more than just answering questions – it's about truly grasping the basics of Refrigerator & AC Mechanic in a way that sticks. Whether you're starting fresh or aiming to refine your skills, this guide has got you covered.

So, get set to challenge yourself, learn in a breeze, and build up your Refrigerator & AC Mechanic expertise. With the Red Seal Study Guide, you're all set to take that significant stride toward becoming a certified Refrigerator & AC Mechanic.

Ready to get started? For more information, tips, and resources, head over to [www.RedSealStudyGuide.ca](http://www.RedSealStudyGuide.ca)  
Refrigerator & AC Mechanic success starts here – dive in!



# DISCLAIMER



## **Study Guide Disclaimer: Important Notice**

The Red Seal Study Guide – Refrigerator & AC Mechanic is a reference tool meant to enhance your exam preparation. It offers insights into potential question formats. However, it's vital to know that this guide should complement, not replace, official government-issued study materials.

For comprehensive readiness, we recommend using both this guide and official resources provided by relevant authorities. Please note that this guide covers exams across Canadian provinces, but slight content variations might exist.

For your best chance at success, ensure a well-rounded preparation approach that includes official materials.

Good luck on your path to becoming a certified Refrigerator & AC Mechanic!

For more information, tips, and resources,  
head over to [www.RedSealStudyGuide.ca](http://www.RedSealStudyGuide.ca)  
Let's craft your future together!



**1. In a vapor compression system, refrigerant before the condenser is**

- A: Saturated liquid
- B: Dry, saturated vapor
- C: Hot steam
- D: Wet vapor

**2. Reduced ambient air cooling signifies?**

- A: One heat exchanger with a cooling turbine
- B: There are two cooling turbines and one heat exchanger
- C: Two cooling turbines and two heat exchangers
- D: One cooling turbine and two heat exchangers

**3. Sea level atmospheric pressure is 14.7 psi.**

- A: True
- B: False

**4. Fuses size?**

- A: OHMs and Watts
- B: Watts and volts
- C: Volts, Amps
- D: Amps and Watts

**5. Economizer operation is most dangerous at?**

- A: Heavy
- B: Banked load
- C: Light load
- D: Overload conditions

See answers on the next page.



1. ☐ A ☐ B ☒ C ☐ D

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2. ☐ A ☒ B ☐ C ☐ D

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3. ☒ A ☐ B

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5. ☐ A ☒ B ☐ C ☐ D

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**6. What causes motor vibration?**

- A: Out of alignment
- B: Unbalanced rotor
- C: Small Motor
- D: Worn bearings

**7. GHS has the same four building blocks as WHMIS and will protect personnel handling hazardous materials.**

- A: True
- B: False

**8. A furnace uses 25,800 watts. The approximate KW rating?**

- A: .258 kW
- B: 25.8 kW
- C: 258 kW
- D: 2.58 kW

**9. Small appliances like refrigerators and freezers use:**

- A: CFC 12
- B: HFC 134A
- C: HFC 410A
- D: HCFC 22

**10. Posting operation and maintenance instructions on heating equipment after installation is typical.**

- A: Wall
- B: Equipment
- C: Door
- D: Ceiling

See answers on the next page.



6. ☐ A ☒ B ☐ C ☐ D

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7. ☒ A ☐ B

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8. ☐ A ☒ B ☐ C ☐ D

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9. ☐ A ☐ B ☒ C ☐ D

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10. ☒ A ☐ B ☐ C ☐ D

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**11. Does the R-12 refrigerant have a white cylinder?**

- A: True
- B: False

**12. Hg represents?**

- A: Inches of mercury
- B: Feet of mercury
- C: Hydrogen Gallons
- D: Hydrostatic gauge pressure

**13. Where should the wood unit vent to the chimney when installing an oil furnace with a wood add-on?**

- A: Connect A-6 below the oil vent
- B: Connection C-6 above the oil vent
- C: Connection at the same level
- D: Co-vented oil unit

**14. Carbon dioxide refrigerant?**

- A: Strong phosgene
- B: Gas smell
- C: Is odorless
- D: Non-toxic

**15. Heat added to steam at 212°F at atmospheric pressure is called?**

- A: Heat-fusion
- B: Latent heat
- C: Superheat
- D: Steam heat

See answers on the next page.



11. ☒ A ☐ B

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12. ☒ A ☐ B ☐ C ☐ D

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15. ☐ A ☐ B ☒ C ☐ D

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**16. PPE means which?**

- A: Pre-arranged safety gear
- B: Personal protection equipment
- C: Prepared safety gear
- D: Proactive personal gear

**17. Steel is made of boiler metal phosphorus?**

- A: Hot
- B: Cold Short
- C: Beneficial
- D: Detrimental

**18. Air conditioning comfort is (where DBT = Dry bulb temperature, RH = Relative humidity).**

- A: 25 C DBT, 100% RH
- B: 22 C, 60% RH
- C: 20 C, 80% RH
- D: 25 C, 40% RH

**19. Does superheat vary widely with capillary tube systems depending on ambient temperature?**

- A: True
- B: False

**20. Which can trip the oil burner motor overload protector?**

- A: Bad main control
- B: Coupling breakdown
- C: A bad centrifugal switch
- D: A seized oil pump

See answers on the next page.



16. ☐ A ☒ B ☐ C ☐ D

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17. ☐ A ☒ B ☐ C ☐ D

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18. ☐ A ☒ B ☐ C ☐ D

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19. ☒ A ☐ B

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20. ☐ A ☐ B ☐ C ☒ D

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**21. What is the ampacity of two #2 RW90 and one #2 TW wires in a conduit? The Canadian Electrical Code**

- A: 160A
- B: 95A
- C: 120A
- D: 145A

**22. When the evaporator is ahead of the blower, what is the minimum vertical drop from the condensate drain pan outlet to the P trap inlet?**

- A: 5 inches
- B: 3 inches
- C: 7 inches
- D: 9 inches

**23. Flue gas oxygen measurement (O2 trim) in combustion control systems is beneficial for which?**

- A: Safer shutdowns
- B: Reduce sulfur emissions
- C: Faster startups
- D: Decrease NOX emissions

**24. The transfer of heat through space is called?**

- A: Conduction
- B: Radiation
- C: Convection
- D: Atomic reactance

**25. All else being equal, a compressor removes more heat when the refrigerant is?**

- A: R-12
- B: R-22
- C: Ammonia
- D: R-134a



21. ☐ A ☒ B ☐ C ☐ D

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22. ☐ A ☒ B ☐ C ☐ D

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25. ☐ A ☐ B ☒ C ☐ D

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