

# RED SEAL STUDY GUIDE ELECTRICIAN YEAR 1

**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 – Electrician

Ready to dive into the world of Electrician? Meet your ultimate companion – the Red Seal Study Guide for Plumbers. This practical booklet is your go-to practice tool to conquer your Electrician 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 Electrician essentials. It's more than just answering questions – it's about truly grasping the basics of Electrician 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 Electrician expertise. With the Red Seal Study Guide, you're all set to take that significant stride toward becoming a certified Electrician.

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



# DISCLAIMER



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

The Red Seal Study Guide – Electrician 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 Electrician!

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Let's craft your future together!



**1. How far can a self-contained battery-powered dual-head emergency light be installed from its receptacle?**

- A: 500 mm
- B: 1.5m
- C: 2.5m
- D: 1m

**2. A location in an electric circuit will have the same current as if 20 coulombs are passed through it in 2 seconds**

- A: 22 amps
- B: 40 amps
- C: 0.1 amps
- D: 10 amps

**3. A circuit breaker container can be a raceway for other equipment.**

- A: True
- B: False

**4. What size conduit is needed for 13 #8 A WG, 600 without jacket R90 XLPE?**

- A: 24
- B: 52
- C: 35
- D: 40

**5: Standard door chimes contain how many terminals?**

- A: 6
- B: 5
- C: 3
- D: 7

See answers on the next page.



1. ☐ A ☒ B ☐ C ☐ D

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2. ☐ A ☐ B ☐ C ☒ D

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**6. A 120 V, 5.8 A furnace. A blower motor needs its circuit. True or False: 266.CEC requirements can be met with a # 6 AWG, RW90 copper conductor, and a 47 A capacitor. The equipment termination temperature is 90°C.**

A: True

B: False

**7. If a # 6 AWG, RW90 copper conductor is sized for a capacitor that has a rated current of 47 A, then this installation would meet the requirements of the CEC. The equipment termination Temperature is 90 degrees Celsius.**

A: True

B: False

**8. The maximum voltage between surface raceway conductors?**

A: 350

B: 300

C: 400

D: 450

**9. For motor supply cables with insulation temperatures above 75 degrees Celsius, the length must be at least:**

A: 1.2 m

B: 2.0 m

C: 1.5 m

D: 1.0 m

**10. Most single-phase portable generators are:**

A: 5 kVA

B: 100 kVA

C: 5000 kVA

D: 1000 kVA

See answers on the next page.



6. ☒ A ☐ B ☐ C ☐ D

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7. ☒ A ☐ B ☐ C ☐ D

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**11. Commercial garages can employ SJ electric drills with flexible cords.**

A: True

B: False

**12. How long can a 48v, 80A/H emergency battery system power a 200W load?**

A: 20h

B: 1200 minutes

C: 19.2h

D: 19.8h

**13. A SOO flexible cord includes six #8 copper current conductors. What is this cord's maximum ampacity?**

A: 28 Amps

B: 35 Amps

C: 40 Amps

D: 32 Amps

**14. Emergency lights must be laid out so that a lamp failure will leave the region in darkness.**

A: True

B: False

**15. What units quantify attenuation?**

A: Webers

B: Hertz

C: Decibels

D: Watts

See answers on the next page.



11. ☒ A ☐ B ☐ C ☐ D

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**16. What is the minimal depth for burying an NMWU cable under a driveway in a residential home? Provided adequate protection?**

- A: 800mm
- B: 500 mm
- C: 750mm
- D: 450mm

**17. Transformer oil provides insulation, cooling, and lubricating.**

- A: Insulation
- B: Lubrication cooling
- C: lubrication
- D: Insulation and cooling

**18. The minimum concrete slab thickness for heating panels in a concrete driveway?**

- A: 250mm
- B: 150mm
- C: 50mm
- D: 160mm

**19. Solar panels in an array can be connected using extra-hard-use flexible cords?**

- A: True
- B: False

**20. Full wave rectifiers rectify both AC cycle halves.**

- A: True
- B: False

See answers on the next page.



16. ☐ A ☐ B ☒ C ☐ D

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17. ☐ A ☐ B ☐ C ☒ D

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**21. When wiring a new receptacle in a residential setting, which color is typically used for the hot wire?**

- A: White
- B: Green
- C: Black
- D: Red

**22. What should the usual voltage reading be between two ungrounded conductors on a 120/208-volt, three-phase, 4-wire Y-Y-connected electric service?**

- A: 120V
- B: 208V
- C: 250V
- D: 240V

**23. A Zone 2 portable lamp could be connected to the supply point by a three-conductor SJOW flexible cord**

- A: True
- B: False

**24. Can Class 1, Zone 1 utilize mechanically guarded lighting?**

- A: True
- B: False

**25. A tachometer's output is calibrated in:**

- A: Fps
- B: Rpm
- C: Foot pounds
- D: Cfm



21. ☐ A ☐ B ☒ C ☐ D

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22. ☐ A ☒ B ☐ C ☐ D

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