

RED SEAL STUDY GUIDE INDUSTRIAL ELECTRICIAN YEAR 1

**25 EXAM PREP QUESTIONS
WITH ANSWERS**



APPRENTICES | INSTRUCTORS | INSTITUTES

RedSealStudyGuide.ca

UNITY CREST SOLUTIONS INC.

INTRODUCTION

Introducing the Red Seal Study Guide – Industrial Electrician.

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

Ready to get started? For more information, tips, and resources, head over to www.RedSealStudyGuide.ca
Industrial Electrician success starts here – dive in!



DISCLAIMER

Study Guide Disclaimer: Important Notice

The Red Seal Study Guide – Industrial 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 Industrial Electrician!

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Let's craft your future together!



1. The binary equivalent of '6' is.

- A: 0110
- B: 0101
- C: 0010
- D: 0011

2. Which drill does not need a ground-connected cord?

- A: Diecast
- B: Coated for resistance
- C: Low voltage
- D: Double-insulated

3. Cathodic Protection?

- A: A form of anode inducer
- B: A rectifier circuit inverter
- C: A system that reduces equipment rusting
- D: Bonding and grounding aid

4. What is "span"?

- A: The maximum conduit strap distance
- B: A wire lubricant
- C: Distance between wall supports
- D: The load beam's minimal capacity

5. Parallel loads have several flow paths for what?

- A: Watts
- B: Voltage
- C: Current
- D: Electrodes

See answers on the next page.



1. ☒ A ☐ B ☐ C ☐ D

Note: _____

2. ☐ A ☐ B ☐ C ☒ D

Note: _____

3. ☐ A ☐ B ☒ C ☐ D

Note: _____

4. ☐ A ☐ B ☒ C ☐ D

Note: _____

5. ☐ A ☐ B ☒ C ☐ D

Note: _____



6. When putting up receptacles and switch locations, which drawing should be used for measurements?

- A: Architectural
- B: schematic
- C: Electrical
- D: Mechanical

7. How efficient is a DC motor?

- A: The input power minus electrical losses is the efficiency
- B: The efficiency ratio is output/input power
- C: Efficiency is always 100%
- D: Efficiency is input power minus mechanical losses

8. Which of the following indicates an open circuit?

- A: No voltage reading
- B: A low or high-voltage reading
- C: The main purpose of transformer taps
- D: Adjust the power factor

9. A gadget called measures consumer electricity use:

- A: Ohmmeter
- B: Watt-hour meter
- C: Ammeter
- D: Power factor meter

10. The minimum free conductor on an outlet box is?

- A: 300mm
- B: 600mm
- C: 100mm
- D: 150mm

See answers on the next page.



6. ☒ A ☐ B ☐ C ☐ D

Note: _____

7. ☐ A ☒ B ☐ C ☐ D

Note: _____

8. ☒ A ☐ B ☐ C ☐ D

Note: _____

9. ☐ A ☒ B ☐ C ☐ D

Note: _____

10. ☐ A ☐ B ☐ C ☒ D

Note: _____



11. What is the largest solid copper conductor?

- A: 12 AWG
- B: 122 AWG
- C: 10 AWG
- D: 14 AWG

12. Most meggers have a voltage range of:

- A: 0 to 500 volts
- B: 500–5000 volts
- C: 0 to 50 volts
- D: 500–1000 volts

13. An important electrical system can restore and sustain electrical energy to specified loads in the case of a loss of energy.

- A: True
- B: False

14. Where in the code book are trip-free circuit breakers?

- A: 12-400
- B: 14-300
- C: 32-100
- D: 32-102

15. Central unit repair and maintenance are unnecessary.

- A: True
- B: False

See answers on the next page.



11. ☐ A ☐ B ☒ C ☐ D

Note: _____

12. ☐ A ☒ B ☐ C ☐ D

Note: _____

13. ☒ A ☐ B

Note: _____

14. ☐ A ☒ B ☐ C ☐ D

Note: _____

15. ☐ A ☒ B

Note: _____



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

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

17. How are most Ohmmeter numbers presented on the face?

- A: Centre left.
- B: Left-to-center
- C: From left to right
- D: From right to left

18. Most single-phase portable generators are:

- A: 5 kVA
- B: 100 kVA
- C: 5000 kVA
- D: 1000 KVA

19. Kirchhoff's voltage law states that which of the following Ohm's law equations can calculate resistor voltage drop?

- A: Voltage drop= IR
- B: Drop in voltage = E/R
- C: Voltage drop= W/I
- D: I/R = voltage drop

20. Heating cables embedded in concrete or plaster affixed to concrete affect material temperatures differently.

- A: True
- B: False

See answers on the next page.



16. ☐ A ☒ B ☐ C ☐ D

Note: _____

17. ☐ A ☐ B ☐ C ☒ D

Note: _____

18. ☒ A ☐ B ☐ C ☐ D

Note: _____

19. ☒ A ☐ B ☐ C ☐ D

Note: _____

20. ☐ A ☒ B

Note: _____



21. What decides how to safely exit an electrical room and the distance needed around equipment?

- A: Fire Marshal
- B: The Canadian National Building Code
- C: The provincial building codes
- D: Building designer

22. Where are armored cable rules in the Canadian Electrical Code?

- A: 12-200
- B: 12-600
- C: 12-500
- D: 12-10

23. What exit sign rule is in the Canadian Electrical Code?

- A: 46-400
- B: 46-500
- C: 44-300
- D: 48-400

24. Which abbreviation would most likely represent “grade” on an electrical drawing?

- A: GR
- B: GRDE
- C: EA
- D: GL

25. Which abbreviation would most likely represent “weatherproof” on an electrical drawing?

- A: WO
- B: WPRO
- C: WDW
- D: WP



21. ☐ A ☒ B ☐ C ☐ D

Note: _____

22. ☐ A ☒ B ☐ C ☐ D

Note: _____

23. ☒ A ☐ B ☐ C ☐ D

Note: _____

24. ☒ A ☐ B ☐ C ☐ D

Note: _____

25. ☐ A ☐ B ☐ C ☒ D

Note: _____



- 1). (A) (B) (C) (D)
- 2). (A) (B) (C) (D)
- 3). (A) (B) (C) (D)
- 4). (A) (B) (C) (D)
- 5). (A) (B) (C) (D)
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- 16). (A) (B) (C) (D)
- 17). (A) (B) (C) (D)
- 18). (A) (B) (C) (D)
- 19). (A) (B) (C) (D)
- 20). (A) (B) (C) (D)
- 21). (A) (B) (C) (D)
- 22). (A) (B) (C) (D)
- 23). (A) (B) (C) (D)
- 24). (A) (B) (C) (D)
- 25). (A) (B) (C) (D)





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