

RED SEAL STUDY GUIDE POWERLINE TECHNICIAN YEAR 2

SAMPLE
25 EXAM PREP QUESTIONS
WITH ANSWERS



APPRENTICES | INSTRUCTORS | INSTITUTES

RedSealStudyGuide.ca

UNITY CREST SOLUTIONS INC.

INTRODUCTION

Introducing the Red Seal Study Guide – Powerline Technician.

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

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



DISCLAIMER

Study Guide Disclaimer: Important Notice

The Red Seal Study Guide – Powerline Technician 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 Powerline Technician!

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Let's craft your future together!



1. A joint in the length of a column is known as

- A: Column splice
- B: Shear joint
- C: Longitudinal
- D: Load-bearing joint

2. What lifting technique has the lowest lifting capability with the same rope?

- A: Choker sling
- B: 2-part Bridle
- C: Vertical hitch
- D: Basket hitch

3. Should this safety aspect be considered when hoisting workers with wire rope?

- A: 5
- B: 20
- C: 10
- D: 25

4. If the power line is de-energized, does the crane operator take which notification?

- A: Signaler
- B: Site engineer
- C: Power company salesperson
- D: Dispatch crane

5. Which of the following are the main turns for a 5000/240V transformer with a secondary winding of 300 turns?

- A: 4200 turns
- B: 6250 turns
- C: 1700 turns
- D: 170 turns

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. A turnbuckle is used for which?

- A: When shackles cannot be lifted
- B: Block-to-wire rope attachment
- C: Attaching a roofline snatch block Balancing load
- D: The following soil is not glacier-deposited

7. The following type of soil is not glacier-deposited

- A: Bentonite
- B: Outwash
- C: Drift
- D: Till

8. On a construction site where multiple lifting operations congestion exists, all personnel acting as signalers during crane operation shall be identified to the crane operator using, hardhat, gloves, and a vest.

- A: Green
- B: Orange
- C: Yellow
- D: Red

9. Minimum equipment clearance from 50 kV power lines:

- A: 15 feet
- B: 10 feet
- C: 5 feet
- D: 20 feet

10. Transmission lines have a standing wave ratio of

- A: From max to min voltage
- B: Maximum to minimum impedence
- C: Maximum to minimum current
- D: Peak/rms voltage relation

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. The letters HRC on a fuse mean what?

- A: Running current
- B: High-rupture current
- C: Capable of bursting
- D: Halves running capacity

12. How is inverter capacity expressed?

- A: Ampere hour
- B: Watt-hour
- C: Volt ampere
- D: Ampere

13. Which dropped when steel carbon content increased?

- A: Hardness
- B: Tensile power
- C: Cracking
- D: Ductility

14. Girt is the name of a structural member which is

- A: Bar
- B: Beam
- C: Splice
- D: Column

15. Where is synthetic liquid transformer oil used?

- A: Generating station transformers
- B: Primary substation transformers
- C: Refineries and hazardous location
- D: Secondary substation transformers

See answers on the next page.



11. ☐ A ☒ B ☐ C ☐ D

Note: _____

12. ☐ A ☐ B ☒ C ☐ D

Note: _____

13. ☐ A ☐ B ☐ C ☒ D

Note: _____

14. ☐ A ☒ B ☐ C ☐ D

Note: _____

15. ☐ A ☐ B ☒ C ☐ D

Note: _____



16. Which material is not used for power transmission and distribution?

- A: Aluminum
- B: Copper
- C: Tungsten
- D: Steel

17. Which of the following is the best measuring instrument to use for troubleshooting an insulation test to see if the insulation has been injured in any way to cause a short circuit when normal power is applied to it?

- A: Voltmeter
- B: Ammeter
- C: Megohmmeter
- D: Wattmeter

18. Flexible metal conduit is usually fastened at?

- A: 300mm
- B: 1.0m
- C: 1.5m
- D: 400mm

19. Which advantage does an autotransformer have over a two-winding transformer?

- A: Useful for electricity distribution
- B: Can separate secondary from
- C: Improved voltage regulation
- D: Useful for EHT supply

20. Suspension cable structural efficiency:

- A: 80%
- B: 100%
- C: 50%
- D: 90%

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 ☐ C ☐ D

Note: _____



21. WHMIS class and division hazard icons represent distinct risks. Skull and crossbones in a circle signify what danger?

- A: Class D
- B: Class C
- C: Class F
- D: Class E

22. Structure design should not consider snow load when the roof is steeper than

- A: 60 degrees
- B: 30 degrees
- C: 45 degrees
- D: 15 degrees

23. The outermost shell of an atom is called?

- A: Ringed shell
- B: Collector shell
- C: A charged shell
- D: Valence shell

24. Truss spacing is called

- A: Span
- B: Panel
- C: Bay
- D: Pitch

25. How the capacity of transformers is rated?

- A: KWH
- B: MW
- C: KVA
- D: KW



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)
- 6). (A) (B) (C) (D)
- 7). (A) (B) (C) (D)
- 8). (A) (B) (C) (D)
- 9). (A) (B) (C) (D)
- 10). (A) (B) (C) (D)
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- 12). (A) (B) (C) (D)
- 13). (A) (B) (C) (D)
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- 15). (A) (B) (C) (D)
- 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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