

RED SEAL STUDY GUIDE POWERLINE TECHNICIAN YEAR 3

**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!

For more information, tips, and resources,
head over to www.RedSealStudyGuide.ca
Let's craft your future together!



1. Calculate the resistance between 100V supply voltage and 4 A current.

- A: 400 ohms
- B: 0.4 ohms
- C: 0.04 ohms
- D: 25 ohms

2. What compression tool is Nico press?

- A: Electric tool
- B: Mechanical tool
- C: Hydraulic tool
- D: Air compressor

3. All the following are good control system features except

- A: Ability to handle power
- B: Good stability
- C: Slow response
- D: Good precision

4. High voltage voltage grading range?

- A: 0V-250V
- B: 250V-650V
- C: Above 33000V
- D: 650V-33000V

5. RCC poles typically span

- A: 25-50m
- B: 50-80m
- C: 80-150m
- D: 250-400m

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. On a twin-string dead-end of a 240 kV circuit with 5 600 lb stress, steel tower insulators are being replaced. What devices can relieve strain?

- A: Transmission insulator
- B: Strain carrier 1-pole
- C: Nylon ratchet tensioner
- D: Carrier of two poles

7. What's wrong with rubber underground cable insulation?

- A: Hard, weak mechanical strength
- B: Water-absorbing
- C: Highly hygroscopic
- D: The distribution range voltage

8. What voltage falls within the distribution range?

- A: 138 kV
- B: 345 kV
- C: 25 kV
- D: 230 kV

9. Which drawing should be used to measure receptacles and switch locations?

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

10. Which transformer has the same secondary voltage as the primary?

- A: Transformer pulse
- B: Instrument transformer
- C: Isolation transformer
- D: Transformer ignition

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 LAN's complete form?

- A: The Local Active Network
- B: Local Aviation Network
- C: Local Area Network
- D: Load area Network

12. AC power transmission uses which type?

- A: Two-phase, three-wire
- B: Three-phase, three-wire
- C: Triple-phase four-wire
- D: Single-phase, 2-wire

13. Which compensates pneumatic control systems?

- A: Restricting volume
- B: Extension tubes
- C: Flapper nozzle action
- D: Bimetal strips

14. The transmission line insulators are made of

- A: PVC
- B: Glass
- C: Iron
- D: Porcelain

15. Empire tape is:

- A: Varnished Cambric
- B: Impregnated paper
- C: Vulcanized rubber
- D: Enamel insulation

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. Knowing the current flow direction, how are magnetic lines of force determined?

- A: Left-hand rule
- B: Thumb rule
- C: Magnetism
- D: Right-hand rule

17. Which letter denotes q_m in $4.44 FNq_m$?

- A: Frequency
- B: Primary turn count
- C: Number of secondary turns
- D: Maximum flux

18. Refers to the truss' rise-to-span ratio.

- A: Slenderness ratio
- B: Buckling factor
- C: Pitch
- D: Lateral ratio

19. Any large beam in a structure is called a

- A: Subsidiary beam
- B: Secondary beam
- C: Girder
- D: Joists

20. Federal law requires product users to receive dangerous information. The form utilized to provide this information.

- A: Material Safety Data Sheet (MSDS)
- B: Hazardous Information Sheet (HIS)
- C: Occupational Safety and Hazard Form (OSHF)
- D: Safety Information Form (SIF)

See answers on the next page.



16. ☐ 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: _____



21. Water percolates through soil due to its characteristic is known as

- A: Porosity
- B: Moisture
- C: Permeability
- D: Wettability

22. A centrifugal switch disconnects which on a split-phase motor?

- A: Armature
- B: Capacitor
- C: Start winding
- D: Run winding

23.. 'Limit cycles' and 'jump resonance' occur in

- A: Non-linear systems
- B: Linear systems
- C: Distributed systems
- D: Separate time ways

24. Which has the least corona effect?

- A: Number of ions
- B: Air temperature
- C: Mean free route
- D: Per-ion signage and fee

25. Which wiring can connect permanent lighting in a cattle building?

- A: NMWU
- B: NSI
- C: SOW
- D: AC90



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)
- 11). (A) (B) (C) (D)
- 12). (A) (B) (C) (D)
- 13). (A) (B) (C) (D)
- 14). (A) (B) (C) (D)
- 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)





Kris & Bobby Publications.