

# RED SEAL STUDY GUIDE WELDER YEAR 1

**25 EXAM PREP QUESTIONS  
WITH ANSWERS**



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UNITY CREST SOLUTIONS INC.

# INTRODUCTION

## **Introducing the Red Seal Study Guide – Welder.**

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

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



# DISCLAIMER



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

The Red Seal Study Guide – Welder 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 Welder!

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



**1. MIG welding nickel alloys typically uses a gas combination that provides good penetration and arc stability.**

- A: 100% CO<sub>2</sub>
- B: 100% argon
- C: 2% oxygen, 98% argon
- D: 20% CO<sub>2</sub>, 80% argon

**2. To gamma radiograph a 40mm thick steel weld, use the specified isotope.**

- A: Iridium 192
- B: Iridium 169
- C: Thulium 170
- D: Cobalt 60

**3. Which acronym best describes an American association in function similar to the Canadian Standards Association?**

- A: ANSI
- B: ACGIH
- C: NIOSH
- D: ISO

**4. In a three-run butt weld utilizing the stovepipe technique, the second run is called the**

- A: Hot pass
- B: Midway run
- C: Running run
- D: Sealing run

**5. Which is not suitable for cutting stainless steel?**

- A: Plasma-arc Oxyfuel cutting
- B: Plasma arc cutting
- C: Shearing
- D: Sawing

See answers on the next page.



1. ☐ A ☒ B ☐ C ☐ D

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**6. Metals under varying loads may experience cyclic straining, leading to structural failure.**

- A: Yield failure
- B: Fatigue failure
- C: Shocking defeat
- D: Tension breakdown

**7. Lead is:**

- A: Is Fast-Oxidizing and Has a Thin Oxide Film
- B: Is Flexible and Blue Grey
- C: Has A Rough, Dull Grey Surface
- D: Velvety White to Grey

**8. No back purging is required when using GTAW and ER 480S-2 filler rods for mild steel welding.**

- A: True
- B: False

**9. Gas shielding is provided by adding which substance to welding electrodes?**

- A: Iron Powder
- B: Iron oxide
- C: Rutile
- D: Cellulose

**10. Wearing\_\_\_\_\_ offers optimal protection for welders.**

- A: Cotton
- B: Leather
- C: Polyester
- D: Rayon

See answers on the next page.



6. ☐ A ☒ B ☐ C ☐ D

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**11. What is distortion?**

- A: Base metal and hard-facing filler metal combination
- B: Stresses from uneven expansion and contraction
- C: Breaking a weld metal from the foundation
- D: Base metal under weld cracking

**12. Electrode holders are sometimes called work lead clamps.**

- A: True
- B: False

**13. A molten puddle from grey cast iron will develop during the flame test.**

- A: Shining immediately under the flame
- B: Bright glowing
- C: Same color as unheated metal
- D: Reddish white

**14. What is the melting temperature of brass in degrees Celsius during a flame test?**

- A: 1354
- B: 1510
- C: 885
- D: 1083

**15. MMA welding of carbon manganese steel exhibits shorter electrode run-out lengths than specified by WPS. This deviation may cause.**

- A: Increased hydrogen cracking risk
- B: Increased HAZ hardness
- C: Lower HAZ toughness
- D: Increased solidification cracking risk

See answers on the next page.



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**16. Inspect all chain sling links and discard if wear exceeds:**

- A: 20% of link diameter
- B: 15% of link diameter
- C: 10% of link diameter
- D: 5% of link diameter

**17. The grain structure of the weld deposit and base metal can be distinct.**

- A: The face bend test
- B: An etching test
- C: A hardness test
- D: Root bend test

**18. How can a grinding wheel coated or laden with foreign particles be restored?**

- A: Squaring
- B: Blotting
- C: Dressing
- D: Truing

**19. The most typical ratio of soluble oil to water for coolant/lubricant on a horizontal band saw is.**

- A: 25:1.
- B: 1:10
- C: 1:25.
- D: 10:1.

**20. Which pressure vessel head is usually sectioned?**

- A: Semi-elliptical
- B: Flange type
- C: Hemispherical
- D: Round dish

See answers on the next page.





16. ☐ A ☒ B ☐ C ☐ D

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**21. Which joint is recommended for welding nickel alloy materials thicker than 10 mm?**

- A: Clad joint
- B: The back joint is
- C: Lapp joint
- D: V-groove butt joint

**22. Which amperage range is advised for an E7018, 3/32" (E4918, 2.5mm) electrode?**

- A: 105-125 amps
- B: 130-150 amps
- C: 70-100 amps
- D: 50-65 amps

**23. When hydrogen control is specified for manual metal arc welding, the electrode is typically**

- A: Iron Oxide
- B: Cellulosic
- C: Basic
- D: Acid

**24. Which flux is reusable in SAW?**

- A: Bonded
- B: Fused
- C: Agglomerated
- D: Rutile-based

**25. Which welding procedure produces high-quality welds on crucial weldments?**

- A: GTAW
- B: GMAW
- C: FCAW
- D SMAW



21. ☐ A ☐ B ☐ C ☒ D

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