

# RED SEAL STUDY GUIDE AUTOMOTIVE SERVICE TECHNICIAN YEAR 4

**25 EXAM PREP QUESTIONS  
WITH ANSWERS**



APPRENTICES | INSTRUCTORS | INSTITUTES

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# INTRODUCTION

## **Introducing the Red Seal Study Guide – Automotive Service Technician.**

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

significant stride toward becoming a certified Automotive Service Technician.

Ready to get started? For more information, tips, and resources, head over to [www.RedSealStudyGuide.ca](http://www.RedSealStudyGuide.ca)



# DISCLAIMER



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

The Red Seal Study Guide – Automotive Service 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 Automotive Service Technician!

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head over to [www.RedSealStudyGuide.ca](http://www.RedSealStudyGuide.ca)  
Let's craft your future together!



**1. The simplest digital sensor is an**

- A: AC generator
- B: Relay
- C: Switch
- D: Solenoid

**2. What sort of final gear assembly has low load contact?**

- A: Helix spiral bevel
- B: Beveled spur
- C: Shim thickness must be increased
- D: Raising pinion bearing preload

**3. When increasing pinion bearing preload it is necessary to \_\_\_\_ shim thickness.**

- A: Increase
- B: Decrease

**4. Which starting aid is not advised for a vehicle diesel engine?**

- A: Vehicle battery heater
- B: Cylinder glow plugs
- C: Engine coolant
- D: Ether starting fluid

**5. A common Toyota MAP sensor at sea level produces a KOEO reading of approximately:**

- A: 0.5v
- B: 3.6v
- C: 1.5v
- D: 2.5v

See answers on the next page.



1. ☐ A ☐ B ☒ C ☐ D

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2. ☐ A ☒ B ☐ C ☐ D

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5. ☐ A ☒ B ☐ C ☐ D

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**6. If a visual check shows minimal fraying, replace the timing belt at the manufacturer's recommended interval.**

- A: True
- B: False

**7. As it enters the guide, a cylinder head valve removal tip binds. What to do?**

- A: Penetrate guide with oil
- B: Tap the valve with a brass punch
- C: Hacksaw the valve stem
- D: File valve tip edges

**8. A good oxygen sensor voltage range when tested is:**

- A: 0.200–.800 volts
- B: 0.450–1.000 volts
- C: 0.100–.450 volts
- D: 0.000–1.200 volts

**9. A 100 kPa (15 psi) radiator pressure cap raises the coolant boiling point to**

- A: 100 degrees
- B: 125 degrees
- C: 150 degrees
- D: 175 degrees

**10. The heat of vaporization is the amount of heat needed to convert liquid to vapor without altering its temperature.**

- A: Latent
- B: Related
- C: Dropped
- D: Acknowledged

See answers on the next page.



6. ☐ A ☒ B ☐ C ☐ D

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7. ☐ A ☐ B ☐ C ☒ D

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8. ☒ A ☐ B ☐ C ☐ D

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9. ☐ A ☒ B ☐ C ☐ D

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10. ☒ A ☐ B ☐ C ☐ D

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**11. Which of the following indicates a closed EGR valve?**

- A: Multiple valve springs
- B: Oppositely wound coils
- C: Stalling, rough idle, and engine surge
- D: Spark knock

**12. Dual springs typically feature**

- A: The coil should have the same tension
- B: Direction
- C: Number of turns
- D: Wound in opposite directions

**13. Standard valve stem-to-guide clearance is**

- A: 0.012–0.025 mm (0.0005–0.001 in.)
- B: 0.125–0.250 mm
- C: 0.250–0.380 mm (0.010–0.015 in.)
- D: 0.025–0.075 mm

**14. Typically, the rear window defogger activates the outside heated side mirrors of a vehicle.**

- A: True
- B: False

**15. When turning a corner, the inside wheel travels \_\_\_\_\_ further than the outside wheel.**

- A: Press the head straight
- B: Resurface head
- C: Replace head
- D: Reinstall as-is

See answers on the next page.



11. ☐ A ☐ B ☐ C ☒ D

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12. ☐ A ☐ B ☐ C ☒ D

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13. ☐ A ☐ B ☐ C ☒ D

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14. ☒ A ☐ B ☐ C ☐ D

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15. ☐ A ☐ B ☐ C ☒ D

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**16. The most common gas used to inflate passive restraint airbags is \_\_\_\_\_.**

- A: Helium
- B: Nitrogen
- C: Carbon dioxide
- D: Hydrogen

**17. The vacuum-operated brake booster system is which of these?**

- A: A fluid under pressure is directed from the power steering pump
- B: Intake manifold pressure difference
- C: Pressurized fluid is stored in an accumulator
- D: Ambient pressures are used

**18. To evaluate the charging system output using a VAT-40 load tester, set the engine RPM to:**

- A: Full throttle
- B: 2000 RPM
- C: 4000 RPM
- D: Idle RPM

**19. The function of the \_\_\_\_\_ is to prevent manual transmission shift mechanisms from shifting out of gear.**

- A: Synchronizer sleeves
- B: Interlock system
- C: Detent system
- D: Blocking ring

**20. Replace timing chains when slack exceeds**

- A: 25 mm (1 in.)
- B: 13 mm (1/2 in.)
- C: 6 mm (1/4 in.)
- D: 19 mm (3/4 in.)

See answers on the next page.



16. ☐ A ☒ B ☐ C ☐ D

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17. ☐ A ☒ B ☐ C ☐ D

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18. ☐ A ☒ B ☐ C ☐ D

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19. ☐ A ☐ B ☒ C ☐ D

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20. ☐ A ☒ B ☐ C ☐ D

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**21. Exterior heated side mirrors are usually triggered via the rear window defogger.**

- A: True
- B: False

**22. An air conditioner's hand-operated service valve (stem type) must be turned. Would an ammeter in front of R1 equal an ammeter in front of R3 for AC system operation?**

- A: Clockwise
- B: Counterclockwise

**23. Rebuilt engines require a first oil and filter change after \_\_\_\_\_ kilometers (\_\_\_\_\_ miles).**

- A: 800 (500)
- B: 80 (50)
- C: 500 (300)
- D: 1500 (1000)

**24. In an engine, the valve head is the component that is exposed to B seals against the valve seat**

- A: Part of valve exposed to the combustion chamber
- B: Contacts the valve opening
- C: Moves from stem to head
- D: Head mechanism

**25. The OEM acronym stands for:**

- A: Original Equipment Manufacturer
- B: Engine Mounts Open
- C: Electrical Only
- D: Often Equally Made



21. ☒ A ☐ B ☐ C ☐ D

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22. ☐ A ☒ B ☐ C ☐ D

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23. ☒ A ☐ B ☐ C ☐ D

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24. ☒ A ☐ B ☐ C ☐ D

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25. ☒ A ☐ B ☐ C ☐ D

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- 2). (A) (B) (C) (D)
- 3). (A) (B) (C) (D)
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- 25). (A) (B) (C) (D)





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