

RED SEAL STUDY GUIDE MACHINIST YEAR 3

**25 EXAM PREP QUESTIONS
WITH ANSWERS**



APPRENTICES | INSTRUCTORS | INSTITUTES

RedSealStudyGuide.ca

UNITY CREST SOLUTIONS INC.

INTRODUCTION

Introducing the Red Seal Study Guide – Machinist.

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

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



DISCLAIMER

Study Guide Disclaimer: Important Notice

The Red Seal Study Guide – Machinist 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 Machinist!

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Let's craft your future together!



1. Which instrument is utilized as a reference point while marking with a vernier height gauge?

- A: Faceplate
- B: Surface plate
- C: Shaped angle plate
- D: License plate

2. What is the maximum diameter Dia 25 (+0.003, -0.001) limit size?

- A: 25.003 mm
- B: 25.001 mm
- C: 24.997 mm
- D: 24.999 mm

3. What is the minimum limit size of a dimension 50 (+0.03, -0.02)?

- A: 50.03 mm
- B: 50.02 mm
- C: 49.97 mm
- D: 49.98 mm

4. What is the expansion of rpm used in drilling?

- A: A revolution every mile
- B: Revolution every meter
- C: Revolution every minute
- D: Minute Retardation

5. Which motor controls the CNC machine's axes?

- A: Servo motor
- B: Air motor
- C: Hydraulic motor
- D: DC series

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. What type of chuck does a CNC lathe use?

- A: Chuck has two jaws
- B: Chuck, hydraulic
- C: Chuck with three jaws
- D: Chuck with four jaws

7. What is the maximum machining length in a CNC lathe?

- A: 320 mm
- B: 245 mm
- C: 200 mm
- D: 340 mm

8. What is the speed range of a CNC machine's spindle?

- A: 40-500 RPM
- B: 40-4000 RPM
- C: 10-600 RPM
- D: 30-1000 RPM

9. What kinds of taper are there in the CNC machine spindle?

- A: ISO 40
- B: Morse taper
- C: Pin taper
- D: Jarno taper

10. When the machine moves 25.49 mm for the common X = 25.50 mm, what must be the positional accuracy?

- A: 0.001 mm
- B: 0.01 mm
- C: 0.1 mm
- D: 1 millimeter

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. Which quadrant of the cartesian coordinate system will have a positive value in both X and Y?

- A: Fourth
- B: Second
- C: Third
- D: First

12. What is a part-time job?

- A: Machine instructions
- B: Instruction to manager
- C: Supervisory Instructions
- D: Instruction to manager

13. What equipment is used in a CNC feedback system?

- A: The control unit
- B: Axis motor
- C: Encoder
- D: Spindle motor

14. What type of machine is utilized for face milling?

- A: CNC lathe
- B: CNC machining
- C: CNC VMC
- D: CNC wire EDM

15. In CNC milling, what type of guideway is used?

- A: LM guide way
- B: Flat
- C: V and flat
- D: Dovetail

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 interpolation is joining two points in a straight line?

- A: Circular interpolation
- B: Linear interpolation
- C: Helical interpolation
- D: Parabolic interpolation

17. Which gear's teeth are cut on the job's conical surface?

- A: Spur gear
- B: Helical gear
- C: Worm wheel
- D: Bevel gear

18. Which of the following curve lines is produced by the progressive rotation of a point around a cylinder?

- A: Spiral
- B: Cycloidal
- C: Helix
- D: Involute

19. What is the indexing ratio of a milling machine's splitting head?

- A: 1:40
- B: 80:1
- C: 40:1
- D: 1:8

20. Determine the dedendum of a bevel gear if the module is 3mm.

- A: 6.75 mm
- B: 6 mm
- C: 3 mm
- D: 3.75 mm

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. What form of the follower is not commonly used in the cam drive?

- A: Roller
- B: Knife edge
- C: Mushroom
- D: Flat-faced

22. Which machine is used to cut a helical groove on a piece of work?

- A: Milling vertically
- B: Milling of turret heads
- C: Universal milling
- D: Horizontal milling

23. Which gear is classed based on the tooth surface and application?

- A: Spur
- B: Helical
- C: Worm
- D: Bevel

24. Which type of bevel gear is used to connect shafts that are at an angle but not intersecting?

- A: Spiral bevel
- B: Straight bevel gear
- C: Hypoid gearing
- D: Miter equipment

25. Which knurling tool contains one roller with right-hand helical teeth and the others with left-hand helical teeth?

- A: Cross knurling
- B: Concave knurling
- C: Straight knurling
- D: Diamond knurling



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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- 23). (A) (B) (C) (D)
- 24). (A) (B) (C) (D)
- 25). (A) (B) (C) (D)





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