

# Apprenticeship and Certification Study Guide



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## Introduction

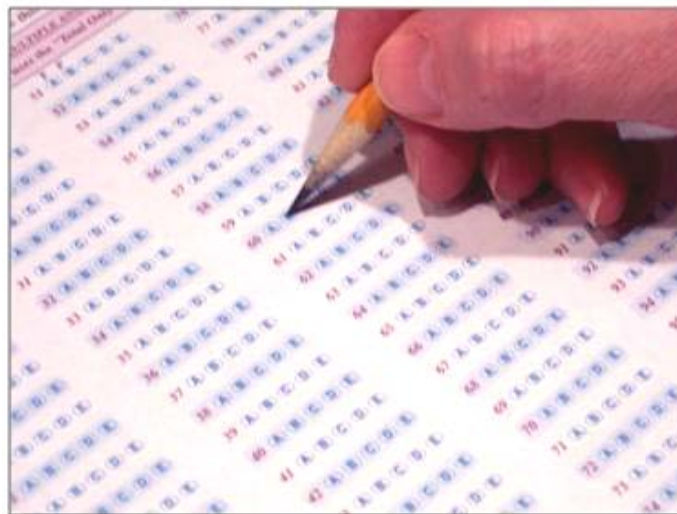
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This Study Guide has been developed by the Newfoundland and Labrador Department of Education and Early Childhood Development, Apprenticeship and Trades Certification Division, to assist apprentices and trade qualifiers as they prepare to write the Red Seal Exam. Red Seal Exams are available for all Red Seal trades. For a list of Red Seal trades please refer to the Department of Education and Early Childhood Development website: <https://www.gov.nl.ca/atcd/designated-trades/list-of-designated-trades/>

### Some of the specific goals of this guide are:

- ⇒ to help you understand the skills and knowledge that might be covered on the exam
- ⇒ to help you identify your strengths and weaknesses
- ⇒ to provide organization and structure for a course of study
- ⇒ to provide a list of resources to help you with your study plan
- ⇒ to support and supplement the teaching and learning process

This study guide outlines the theoretical portion of the program. The intent is not to replace technical training provided under the guidance of instructors. Rather, it is a tool to be used in conjunction with formal training.



# Exam Process

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## Before the Exam

You must contact the nearest Apprenticeship and Trades Certification Divisional office to make request to write the Red Seal exam (*See Appendix A for a list of regional offices*). Upon approval, the Apprenticeship Program Officer (APO) will notify you of your eligibility to write the exam, and provide you with scheduling information. If you require special accommodations due to a disability or language barrier, please contact your regional office for information on applying for this service.

## During the Exam

### You must bring:

- personal identification such as a photo or signature ID or valid Newfoundland and Labrador driver's license
- your notification letter

### The following will be provided:

- Load Chart
- A calculator (*see Appendix B for calculator information*)
- All other items required such as pencils, scrap paper, etc.

### Important Note:

Personal cell phones, calculators, or other electronic equipment are NOT allowed into the exam room. If you do bring them, they will be stored away and returned to you when you have completed the exam.

## After the Exam

Results will be mailed to you approximately seven to ten days after completion of the exam. All necessary instructions and information will be provided in the results letter.

The percentage mark you obtained will be provided. You will also be given a section by section breakdown, showing how many questions were in each section, as well as the number of questions in each section you completed successfully.

If you are successful in obtaining a 70% or more on your exam, you will be issued a Newfoundland and Labrador Certificate of Qualification with a Red Seal endorsement.

## Exam Format

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All Red Seal exams are written in multiple-choice format. Each exam has between 100 and 150 questions. A multiple choice question consists of a stem (a complete question) followed by four options (A, B, C, D). The stem contains all the information necessary to answer the question. The options consist of the one correct answer and three “distracters.” Distracters are incorrect. (See Appendix C for a sample answer sheet).

### Level 1 Knowledge and Recall

Questions at this level test your ability to recall and understand definitions, facts, and principles.

### Level 2 Procedural and Application

Questions at this level test your ability to apply your knowledge of procedures to a new situation.

### Level 3 Critical Thinking

Questions at this level test your ability to interpret data, solve problems and arrive at valid conclusions.

On the following pages, examples of each of the three types of questions are provided.

#### Level 1 Examples:

1. How is the weight of a load estimated?
  - A. Multiply length by circumference.
  - B. Multiply length by width.
  - C. Multiply volume by unit weight.
  - D. Compare it to other known lifts.



2. From whom does the crane operator accept notification that the power line has been de-energized?

- A. Signaler.
- B. Power company representative.
- C. Site engineer.
- D. Crane dispatcher.



3. What is the safe distance required for counterweight swing clearance?

- A. 1 ft.
- B. 2 ft.
- C. 4 ft.
- D. 6 ft.



### Level 2 Examples:

1. After making several lifts from one spot, what step is followed?

- A. Check hydraulic oil.
- B. Check level.
- C. Check wind conditions.
- D. Check radius.



2. Prior to installing the upper works, what is done?

- A. Clean and lubricate splined shafts and roller bearings.
- B. Clean and lubricate splined shafts and horizontal travel shaft.
- C. Clean and lubricate splined shafts and clean turntable surfaces.
- D. Clean and lubricate splined shafts and expansion locking ring.



3. What two functions are done to increase radius and keep the load 1 foot off of the ground?

- A. Boom up and raise the load.
- B. Boom up and lower the load.
- C. Boom down and raise the load.
- D. Boom down and lower the load.



### Level 3 Examples:

1. Given the following information:

- Three leg bridle sling, 1 in. wire rope
- L = 20 ft. sling length
- H = 15 ft. height from load to hook
- WLL = working load limit (Safe working load)
- Capacity = WLL (of single vertical hitch) x H/L x 2

What is the maximum capacity for this configuration?

- A. 9 000 lb.
- B. 13 500 lb.
- C. 24 000 lb.
- D. 27 000 lb.



2. What is the minimum number of parts of line required to perform the following lift?

- Load weighs 18 700 lb.
- 40 ton, 4 sheave block
- Block weighs 1 200 lb.
- Spreader bar weighs 650 lb. including slings
- Line pull is 6 300 lb.

- A. 2.
- B. 3.
- C. 4.
- D. 5.



3. What would be the result of angle type outriggers blocked up higher on one side of the truck than on the other?

- A. Uneven stress on the boom.
- B. Un-level platform.
- C. Tipping axis distance reduction.
- D. Truck more difficult to operate.



Source of questions:

<https://www.red-seal.ca/eng/s.1mpl.2.2x.1mQ.5.2st.3.4ns.shtml?tid=148>

## Exam Content

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### Understanding the *Red Seal Occupational Standard (RSOS)*

The Red Seal model has historically been based on the development of the National Occupational Analysis (NOA) which supports the development of multiple-choice format examinations.

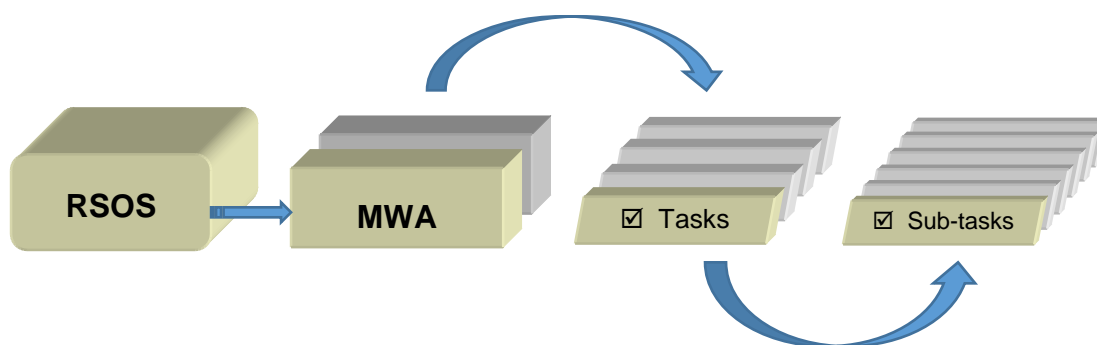
The RSOS was introduced in 2015 and is now taking the place of the NOA. Each RSOS or NOA sets the standard for a Red Seal trade. The Red Seal Examination is based on the Red Seal Standard.

The new standards provide greater consistency in learning resources and allow for increased industry involvement in the development of these standards. This new model places increases emphasis on apprenticeship training and assessing skills with industry learning objectives, outcomes and performance criteria.

The RSOS for each trade describes the tasks and sub-tasks; skills and knowledge requirements; summary of essential skills; safety information; trends affecting the trade; technical terms; names of tools and equipment; acronyms; learning objectives and outcomes; industry expected performance and essential skills related to each sub-task.

The RSOS is an excellent tool to use as you study for the Red Seal exam. RSOSs can be found at <http://www.red-seal.ca/resources/n.4.1-eng.html>

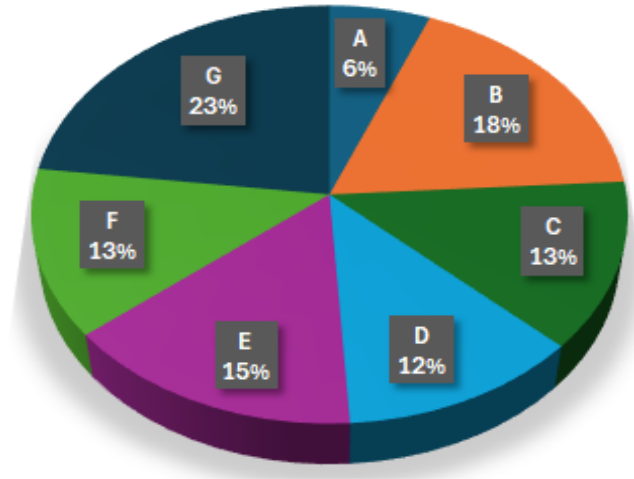
RSOS material is organized into the following categories: **MWA (Major Working Activity)**. The MWAs are further broken down into **TASKS** (*describes activities within an MWA*) and **SUB-TASKS** (*describe activities within a task – This is what the exam is based on*).



The NOA will continue to be used as the occupational standard for trades that do not yet have an RSOS developed.

## RSOS Pie Chart

The RSOS Pie Chart presents the MWA percentages in the form of a pie chart which tells you the approximate number of questions from each MWA. For example, 6% of the questions on the **Mobile Crane Operator** Exam will be based on **MWA A**.



MWA Titles			
<b>MWA A</b>	Performs Common Occupational Skills	<b>MWA E</b>	Plans Lift, Prepares Site and Sets up Crane
<b>MWA B</b>	Performs Hoisting Calculations	<b>MWA F</b>	Assembles, Disassembles and Transports Crane
<b>MWA C</b>	Inspects and Maintains Crane	<b>MWA G</b>	Operates Crane
<b>MWA D</b>	Performs Rigging		

## Exam Breakdown

The **Mobile Crane Operator** Red Seal Exam has 110 questions. The following table shows a breakdown of the approximate number of questions that come from each RSOS MWA. It is important to note that the number of questions can change at any time. When you are ready to write your exam, you may contact your regional office to verify the number of questions (See Appendix A).

		# of Questions
<b>MWA A</b>	<b>Performs Common Occupational Skills</b>	<b>7</b>
<b>Task 1</b>	Performs safety-related functions	
<b>Task 2</b>	Uses communication and mentoring techniques	
<b>MWA B</b>	<b>Performs Hoisting Calculations</b>	<b>20</b>
<b>Task 3</b>	Determines load weights	
<b>Task 4</b>	Calculates crane capacity	
<b>Task 5</b>	Performs rigging calculations	
<b>MWA C</b>	<b>Inspects and Maintains Crane</b>	<b>14</b>
<b>Task 6</b>	Performs pre-operational checks and regular inspections	
<b>Task 7</b>	Performs operational and continual checks	
<b>Task 8</b>	Performs minor crane maintenance	
<b>MWA D</b>	<b>Performs Rigging</b>	<b>13</b>
<b>Task 9</b>	Inspects, maintains and stores slings and hardware	
<b>Task 10</b>	Follows rigging procedures	
<b>MWA E</b>	<b>Plans Lift, Prepares Site and Sets Up Crane</b>	<b>16</b>
<b>Task 11</b>	Performs pre-lift planning	
<b>Task 12</b>	Sets up crane	
<b>MWA F</b>	<b>Assembles, Disassembles and Transports Crane</b>	<b>15</b>
<b>Task 13</b>	Loads and unloads components for transport	
<b>Task 14</b>	Drives cranes on public roadways	
<b>Task 15</b>	Assembles and disassembles lattice boom cranes	
<b>Task 16</b>	Assembles and disassembles telescopic boom cranes	
<b>Task 17</b>	Assembles and disassembles specialty equipment and attachments	
<b>MWA G</b>	<b>Operates Crane</b>	<b>25</b>
<b>Task 18</b>	Performs common craning operations	
<b>Task 19</b>	Operates friction drive lattice boom cranes	
<b>Task 20</b>	Operates hydraulic drive lattice boom cranes	
<b>Task 21</b>	Operates telescopic boom cranes	
<b>Task 22</b>	Performs specialty craning operations	
<b>Task 23</b>	Secures crane	
	<b>Total</b>	<b>110</b>

## RSOS Sub-tasks

The following *RSOS Task Profile Checklist* outlines the blocks, tasks and sub-tasks for your trade. The Red Seal exam is written to test your knowledge and abilities regarding the sub-tasks in the RSOS. This chart can be used to review your current knowledge. You can review by placing a check mark (✓) next to those you understand fully.

Place your focus on those you do not understand and study them until you are comfortable with the material. Think of possible questions in that particular content area.

The RSOS also contains a list of “supporting knowledge and abilities” for each sub-task. They are the skills and knowledge you must have to perform a sub-task. The supporting knowledge and abilities identified under each sub-task will be very helpful as you review. The list can be found in the RSOS for your trade.

**Task Profile Checklist  
Based on 2021 RSOS  
Mobile Crane Operator**

**MWA A: Performs Common Occupational Skills**

**Task 1: Performs Safety-Related Functions**

**Sub-Tasks**

- Maintains a safe work environment
- Uses personal protective equipment (PPE) and safety equipment
- Uses documentation

**Task 2: Uses communication and mentoring techniques**

**Sub-Tasks**

- Uses communication techniques
- Uses mentoring techniques

**MWA B: Performs Hoisting Calculations**

**Task 3: Determines Load Weights**

**Sub-Tasks**

- Identifies weight
- Calculates weight

**Task 4: Calculates Crane Capacity**

**Sub-Tasks**

- Determines radius and crane configuration
- Interprets load chart

**Task 5: Performs Rigging Calculations**

**Sub-Tasks**

- Performs sling angle calculations
- Performs working load limit (WLL) calculations

## MWA C: Inspects and Maintains Crane

### Task 6: Performs Pre-Operational Checks and Regular Inspections

#### Sub-Tasks

- Inspects engine systems
- Inspects air systems
- Inspects electrical systems
- Inspects hydraulic systems
- Inspects chassis/car body and running gear components
- Inspects outriggers and counterweights
- Inspects boom components and attachments
- Inspects hoisting systems

### Task 7: Performs Operational and Continual Checks

#### Sub-Tasks

- Checks operating controls
- Inspects monitoring and warning systems
- Monitors running lines, hoist ropes and standing ropes
- Maintains gauges and warning systems
- Monitors support base

### Task 8: Performs Minor Crane Maintenance

#### Sub-Tasks

- Changes oil and filter
- Greases crane
- Lubricates wire ropes
- Makes adjustments and replacements

## MWA D: Performs Rigging

### Task 9: Inspects, Maintains and Stores Slings and Hardware

#### Sub-Tasks

- Lubricates slings and hardware
- Identifies deficiencies in slings and hardware
- Disposes of damaged slings and hardware
- Stores slings and hardware

## MWA D: Performs Rigging (Cont'd)

### Task 10: Follows Rigging Procedures

#### Sub-Tasks

- Selects required rigging
- Rigs loads
- Monitors rigging

## MWA E: Plans Lift, Prepares Site and Sets Up Crane

### Task 11: Performs Pre-Lift Planning

#### Sub-Tasks

- Participates in routine, engineered and specialty lift planning
- Evaluates risks and hazards

### Task 12: Sets up Crane

#### Sub-Tasks

- Performs final site inspection
- Positions crane
- Completes setup

## MWA F: Assembles, Disassembles and Transports Crane

### Task 13: Loads and Unloads Components for Transport

#### Sub-Tasks

- Loads crane and components
- Unloads crane and components

### Task 14: Drives Cranes on Public Roadways

#### Sub-Tasks

- Performs pre-trip planning
- Prepares crane for transport
- Drives cranes

## MWA F: Assembles, Disassembles and Transports Crane (Cont'd)

### Task 15: Assembles and Disassembles Lattice Boom Cranes

#### Sub-Tasks

- Installs tracks on car body (*lattice boom*)
- Installs superstructure/upperworks(*lattice boom*)
- Installs outrigger boxes (*lattice boom*)
- Installs boom base (*lattice boom*)
- Intalls counterweights (*lattice boom*)
- Assembles main boom, tip and boom attachments (*lattice boom*)
- Installs hook blocks and overhaul ball (*lattice boom*)
- Removes hook blocks and overhaul ball (*lattice boom*)
- Disassembles main boom, tip and boom attachments (*lattice boom*)
- Removes counterweights (*lattice boom*)
- Removes boom base (*lattice boom*)
- Removes superstructure/upperworks (*lattice boom*)
- Removes tracks from car body (*lattice boom*)
- Removes outrigger boxes (*lattice boom*)

### Task 16: Assembles and Disassembles Telescopic Boom Cranes

#### Sub-Tasks

- Installs tracks on car body (*telescopic boom*)
- Installs outrigger boxes (*telescopic boom*)
- Installs superstructure/upperworks (*telescopic boom*)
- Installs main boom (*telescopic boom*)
- Installs hook blocks and overhaul ball (*telescopic boom*)
- Installs counterweights (*telescopic boom*)
- Installs jibs and inserts (*telescopic boom*)
- Removes jibs and inserts (*telescopic boom*)
- Removes counterweights (*telescopic boom*)
- Removes hook blocks and overhaul ball(*telescopic boom*)
- Removes main boom (*telescopic boom*)
- Removes outrigger boxes (*telescopic boom*)
- Removes tracks from car body (*telescopic boom*)
- Removes superstructure/upperworks (*telescopic boom*)

### Task 17: Assembles and Disassembles Specialty Equipment and Attachments

#### Sub-Tasks

- Assembles specialty equipment and attachments
- Disassembles specialty equipment and attachments

## MWA G: Operates Crane

### Task 18: Performs Common Craning Operations

#### Sub-Tasks

- Configures load moment indicator (LMI)
- Mobilizes crane on jobsite

### Task 19: Operates Friction Drive Lattice Boom Cranes

#### Sub-Tasks

- Operates friction drive crawler-mounted lattice boom cranes
- Operates friction drive truck-mounted lattice boom cranes

### Task 20: Operates Hydraulic Drive Lattice Boom Cranes

#### Sub-Tasks

- Operates hydraulic drive crawler-mounted lattice boom cranes
- Operates hydraulic drive truck-mounted lattice boom cranes

### Task 21: Operates Telescopic Boom Cranes

#### Sub-Tasks

- Operates crawler-mounted telescopic cranes
- Operates rubber tire-mounted telescopic cranes

### Task 22: Performs Specialty Craning Operations

#### Sub-Tasks

- Operates crane with pile driving equipment
- Performs duty cycle operations
- Operates cranes on floating platforms
- Performs multi-crane lifts
- Uses personnel hoisting equipment

### Task 23: Secures Crane

#### Sub-Tasks

- Secures crane for short term
- Secures crane for long term

## Create a Study Plan

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As you prepare for your exam, it is important to plan a schedule. The following two tables will help you stay on track.

The first table is a **“Weekly Study Plan.”** In this table list the areas you will focus your study for each day. You should include items you need to review as well as items you need to study. Remember, more time will be needed for study in areas you find difficult, whereas you may only require review in areas you are more familiar with. As you work through the RSOS sub-task list you can start to fill in this table.

The second table is a **“Study Time Table.”** It is important to create a study schedule where you determine the best days of the week and times of day for you to study.

Print several copies of these tables and fill out for each week of study. It is important to stick to your study schedule.

**Weekly Study Plan for Week of:** \_\_\_\_\_

	Area of Study 1	Area of Study 2	Area of Study 3	Area of Study 4	Area of Study 5	Area of Study 6
Mon.						
Tues.						
Wed.						
Thu.						
Fri.						
Sat.						
Sun.						

**Study Time Table for Week of:** \_\_\_\_\_

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:00 AM - 9:00 AM							
9:00 AM - 10:00 AM							
10:00 AM - 11:00 AM							
11:00 AM - 12:00 Noon							
12:00 Noon - 1:00 PM							
1:00 PM - 2:00 PM							
2:00 PM - 3:00 PM							
3:00 PM - 4:00 PM							
4:00 PM - 5:00 PM							
5:00 PM - 6:00 PM							
6:00 PM - 7:00 PM							
7:00 PM - 8:00 PM							

## Resources - Websites

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Study information can be drawn from a variety of sources. A sample list of study materials (websites and books) is provided below. These and other helpful resources may be found in a local college bookstore, on the Internet, or at your place of employment. You may also be able to borrow them from an apprentice or journey-person in your trade.

### Study Strategies and Exam Preparation Guide

The *Study Strategies & Exam Preparation Guide* is meant to be used in conjunction with this study guide. It provides direction and information on such areas as study habits, test preparation and test taking techniques.

<https://www.gov.nl.ca/atcd/files/Study-Strategies-and-Exam-Prep-Guide-November-2025.pdf>

### Plan of Training (POT)

A *Provincial Plan of Training* details the full scope of learning for a particular occupation, including both technical training competencies and industry experiences necessary to write a Red Seal exam (and complete the requirements for Red Seal Certification), or to write a provincial examination. The Plan of Training is based on the RSOS.

<https://www.gov.nl.ca/atcd/designated-trades/pots-aacs/>

### Red Seal Website

**Red Seal** is a program that sets common standards to evaluate the skills of tradespeople across Canada. It is a partnership between the Federal Government and the provinces/territories.

The Red Seal model has been based on the National Occupational Analyses (NOA) which supports the development of multiple-choice examinations. A new Red Seal Occupational Standard (RSOS) was introduced in 2015 and is taking the place of the NOA.

<http://www.red-seal.ca/>

### Mobile Crane Operator PRACTICE Exam

This is **NOT** a Red Seal exam. This is a practice exam provided by the Red Seal Standards program. It was developed using similar question types to that of a Red Seal exam. The exam is intended to be used for self-assessment in preparation for writing a Red Seal Exam.

<https://www.red-seal.ca/eng/s.1mpl.2.2x.1mQ.5.2st.3.4ns.shtml?tid=148>

### Red Seal Exam Self-Assessment Guide

Use this self-assessment tool to rate your own understanding and experience with the tasks of the trade that are on the Red Seal examination:

[https://red-seal.ca/eng/trades/148\\_mobile\\_crane\\_operator/.2x.1m\\_cs.shtml#s1](https://red-seal.ca/eng/trades/148_mobile_crane_operator/.2x.1m_cs.shtml#s1)

### Acronyms

The Red Seal website lists Acronyms which will be helpful in preparing for your Red Seal exam:

[https://red-seal.ca/eng/trades/mobilecrane\\_op/app-a.shtml](https://red-seal.ca/eng/trades/mobilecrane_op/app-a.shtml)

### Tools and Equipment

The Red Seal website shows a list of Tools & Equipment which can be helpful in preparing for your Red Seal exam:

[https://red-seal.ca/eng/trades/mobilecrane\\_op/app-b.shtml](https://red-seal.ca/eng/trades/mobilecrane_op/app-b.shtml)

### Glossary

The Red Seal website lists a Glossary which will be helpful in preparing for your Red Seal exam:

[http://www.red-seal.ca/trades/mobilecrane\\_op/2013n.4.1\\_.1ppc\\_.1cr.4nym-eng.html](http://www.red-seal.ca/trades/mobilecrane_op/2013n.4.1_.1ppc_.1cr.4nym-eng.html)

## Resources – Book List

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The books listed below may help you obtain information on specific topics. It is not necessary to use these books specifically, as you may find others that will be equally beneficial.

**If you wish to obtain any of the resources, here is the reference information:**

- IPT's Crane & Rigging Handbook*, IPT Publishing & Training Ltd., 2005, Garby, RG., ISBN 978-0920855010
- Mobile Crane Manual*, 1<sup>st</sup> edition, Construction Safety Association of Ontario, 1982, Dickie, D.E., ISBN 978-0919465091
- Mobile Craning Today*, 1<sup>st</sup> edition, Operating Engineers Training Institute of Ontario, 1988, Campbell, D.H., ASIN B0007BHT4C
- Occupational Health and Safety Act*, RSNL1990 Chapter 0-3, [www.assembly.nl.ca/legislation/sr/statutes/o03.htm](http://www.assembly.nl.ca/legislation/sr/statutes/o03.htm)
- Workplace Hazardous Materials Information System*, Occupational Health and Safety Act, 1988, <http://www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/index-eng.php>
- Transportation of Dangerous Goods Act*, Agreement Respecting Administration of the Transportation of Dangerous Goods Act, Canada – Newfoundland and Labrador, 1992, [www.tc.gc.ca/eng/tdg/clear-agreements-nf-353.htm](http://www.tc.gc.ca/eng/tdg/clear-agreements-nf-353.htm)
- CAN-CSA Safety Code for Mobile Cranes*, CSA for Occupational Health & Safety, [ohs.csa.ca/standards/construction/cranes/dsp\\_Cranes.asp](http://ohs.csa.ca/standards/construction/cranes/dsp_Cranes.asp)
- Rigging Manual*, Construction Safety Association of Ontario, ISBN 0-919465-09-9
- Hoisting and Rigging Safety Manual*, Construction Safety Association of Ontario, ISBN 978-0919465706

## Disclaimer

Various external resources (websites, textbooks) have been listed in this study guide to assist an individual in preparing to write a Red Seal Exam. This does not mean the Department of Education and Early Childhood Development, Newfoundland and Labrador endorses the material or that these are recommended as the best resources. There may be other resources of equal or greater value to an individual preparing for a Red Seal exam. The Department of Education and Early Childhood Development has no control over the content of external textbooks and websites listed, and no responsibility is assumed for the accuracy of the material.

## Conclusion

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We hope this guide has provided you with some useful tools as you prepare for your Red Seal exam. If you have any questions regarding your Red Seal exam please contact your regional office (*see Appendix A for a list of regional offices*).

We appreciate your comments and feedback regarding the usefulness of this study guide. If you have any comments or suggestions, we welcome your feedback. The feedback form at the end of this guide can be used for this purpose.

## Appendix A: Regional Offices

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If you have any questions regarding your Red Seal exam, please contact one of the following regional offices:

Department of Education and Early Childhood Development  
Apprenticeship and Trades Certification Division  
Toll Free: 1-877-771-3737

<https://www.gov.nl.ca/atcd/contact-us/staff-listing-and-office-locations/>

### Corner Brook

1-3 Union Street  
Aylward Building, 2<sup>nd</sup> Floor  
Corner Brook, NL A2H 5M7

Telephone: (709) 637-2366  
Facsimile: (709) 637-2519

### Grand Falls-Windsor

42 Hardy Avenue  
Grand Falls-Windsor, NL  
A2A 2J9

Telephone: (709) 292-4215  
Facsimile: (709) 292-4502

### Clarenville

45 Tilley's Road  
Clarenville, NL  
A5A 1Z4

Telephone: (709) 466-3982  
Facsimile: (709) 466-3987

### St. John's

P.O. Box 8700  
1170 Topsail Road  
Mount Pearl, NL A1B 4J6

Telephone: (709) 729-2729  
Facsimile: (709) 729-5878

### Happy Valley-Goose Bay

163 Hamilton River Road  
Bursey Building  
Happy Valley-Goose Bay, NL  
AOP 1E0

Telephone: (709) 896-6348  
Facsimile: (709) 896-3733

### Wabush

1D Grenfell Drive  
P.O. Box 160  
Wabush, NL  
AOR 1B0

Telephone: (879) 382-1920  
Facsimile: (709) 282-3007

## Appendix B: Calculator Use

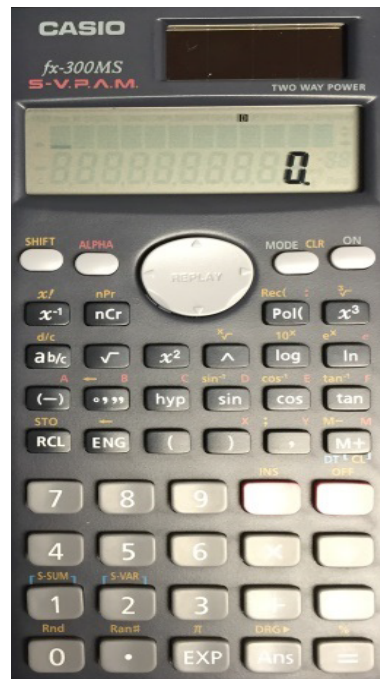
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The picture below shows a calculator with the same functions as the one you will be provided with during your exam. It is advisable to borrow or purchase one with similar functions so that you can familiarize yourself with it before you write your exam.

**Casio FX-260**



**Casio FX-300 MS**



# Appendix C: Answer Sheet Example

With your exam you will be given an answer sheet like the one below. When answering multiple choice questions be sure to fill the circle completely and fill the circle that corresponds to the question on the exam.

Dual readhead scanner  required  to score this sheet

KEY ID  
A B C D E

SCORING & PRINTING OPTIONS:  
 RESCORE  MULTIPLE ANSWER SCORING  
 This sheet always uses the "Total Only" scoring option.

1 T F A B C D E 26 T F A B C D E 51 T F A B C D E 76 T F A B C D E  
 2 A B C D E 27 A B C D E 52 A B C D E 77 A B C D E  
 3 A B C D E 28 A B C D E 53 A B C D E 78 A B C D E  
 4 A B C D E 29 A B C D E 54 A B C D E 79 A B C D E  
 5 A B C D E 30 A B C D E 55 A B C D E 80 A B C D E  
 6 A B C D E 31 A B C D E 56 A B C D E 81 A B C D E  
 7 A B C D E 32 A B C D E 57 A B C D E 82 A B C D E  
 8 A B C D E 33 A B C D E 58 A B C D E 83 A B C D E  
 9 A B C D E 34 A B C D E 59 A B C D E 84 A B C D E  
 10 A B C D E 35 A B C D E 60 A B C D E 85 A B C D E  
 11 A B C D E 36 A B C D E 61 A B C D E 86 A B C D E  
 12 A B C D E 37 A B C D E 62 A B C D E 87 A B C D E  
 13 A B C D E 38 A B C D E 63 A B C D E 88 A B C D E  
 14 A B C D E 39 A B C D E 64 A B C D E 89 A B C D E  
 15 A B C D E 40 A B C D E 65 A B C D E 90 A B C D E  
 16 A B C D E 41 A B C D E 66 A B C D E 91 A B C D E  
 17 A B C D E 42 A B C D E 67 A B C D E 92 A B C D E  
 18 A B C D E 43 A B C D E 68 A B C D E 93 A B C D E  
 19 A B C D E 44 A B C D E 69 A B C D E 94 A B C D E  
 20 A B C D E 45 A B C D E 70 A B C D E 95 A B C D E  
 21 A B C D E 46 A B C D E 71 A B C D E 96 A B C D E  
 22 A B C D E 47 A B C D E 72 A B C D E 97 A B C D E  
 23 A B C D E 48 A B C D E 73 A B C D E 98 A B C D E  
 24 A B C D E 49 A B C D E 74 A B C D E 99 A B C D E  
 25 A B C D E 50 A B C D E 75 A B C D E 100 A B C D E

ANSWER KEY INFO.  
# OF KEYS  
ITEM COUNT

0	0	0	2
1	1	1	3
2	2	2	4
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

PERFORMANCE ASSESSMENT  
% OF TOTAL SCORE (00 = 100%)

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

Bar Code

NUMBER CORRECT	
PERCENT CORRECT	
ROSTER NUMBER	
SCORE	
RESCORE	

COMBINED POINTS EARNED	
COMBINED PERCENT CORRECT	
LETTER GRADE	
SCORE	
RESCORE	

200 ITEM

MARKING INSTRUCTIONS  
Use a No. 2 Pencil  
Fill oval completely  
Erase cleanly

STUDENT ID NUMBER

0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

NAME \_\_\_\_\_  
SUBJECT \_\_\_\_\_  
PERIOD \_\_\_\_\_ DATE \_\_\_\_\_

## Feedback Form

### Study Guide – Mobile Crane Operator

Please answer the following:

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- (1) This Study Guide is a useful tool for exam preparation.  
 strongly agree     agree     disagree     strongly disagree
- (2) The topics contained in the guide are arranged in a logical order.  
 strongly agree     agree     disagree     strongly disagree
- (3) The design and format of the guide caught my attention.  
 strongly agree     agree     disagree     strongly disagree
- (4) The instructions throughout the guide are clear and to the point.  
 strongly agree     agree     disagree     strongly disagree
- (5) The resources listed in this guide are suitable and valuable.  
 strongly agree     agree     disagree     strongly disagree
- (6) The guide should contain more information.  
 strongly agree     agree     disagree     strongly disagree

Suggested information/resources to include:

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Additional Comments:

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**Please complete this form and return via fax or mail to the following:**

Department of Education and Early Childhood Development  
Apprenticeship and Trades Certification Division  
Standards and Curriculum Unit  
45 Tilley's Road, Clarenville, NL A5A 1Z4  
Fax: (709) 466-3987

Department of Education and Early Childhood Development  
Apprenticeship and Trades Certification Division

