

# Construction Electrician

## Interprovincial Journeyman Examination Information

<b>Apprentice Requirements:</b>	4 years and 7200 hours
<b>Tradesperson Requirements:</b>	6 years and 10800 hours
<b>Practical Examination:</b>	No

The interprovincial (IP) journeyman examination for this trade is developed by a national committee of worker and employer representatives. The content for IP Examinations is drawn from the Red Seal Occupational Standard (RSOS) for that trade and is based on industry's standards and expectations. You can download and print a free copy of the RSOS from the Red Seal website by visiting <http://www.red-seal.ca>.

To write the interprovincial journeyman examination, you must successfully complete an apprenticeship training program. The pass mark is 70%.

### Red Seal Examination preparation resources:

To assist in the understanding of the development of all Interprovincial Red Seal examinations, Employment and Social Development Canada (ESDC) has developed the following information.

- A short explanation of the role of an occupational standard in the development of a Red Seal examination can be accessed on the Red Seal website at the following link: <http://www.red-seal.ca/resources/wh.1t.3sn.4.1-eng.html>
- The Getting Ready for the Examination document can be accessed through the Red Seal website at the following link: <http://www.red-seal.ca/docms/getready-eng.pdf>
- Red Seal examination sample questions can be accessed on the Red Seal website at the following link: [http://www.red-seal.ca/resources/s.1mpl.2\\_q.5.2st.3.4ns-eng.html](http://www.red-seal.ca/resources/s.1mpl.2_q.5.2st.3.4ns-eng.html)
- A trade specific skills assessment tool is available on the Red Seal website at the following link: [https://www.red-seal.ca/eng/trades/51\\_construction\\_electrician/.2x.1m\\_cs.shtml](https://www.red-seal.ca/eng/trades/51_construction_electrician/.2x.1m_cs.shtml)

Use of cell phones, electronic imaging/recording or communication equipment is **not** permitted. You will be required to leave immediately if any of these items are found on your person.

Please note that examinations and study information change frequently. The most recent information is available on our website at [www.saskapprenticeship.ca](http://www.saskapprenticeship.ca).

## Construction Electrician Red Seal Examination Breakdown

An Interprovincial Red Seal examination is based on the Red Seal Occupational Standard (RSOS). The RSOS describes the skills and knowledge required to perform the duties of the trade. Each standard is divided into Major Work Activities (MWA), which are divided into Tasks, which are divided into Sub-tasks.

The Red Seal examination has a certain number of questions assigned to these sections. The number of questions are provided below. For more information, see the full Red Seal Occupational Standard for this [trade](#).

### Total number of questions on the Interprovincial Red Seal examination – 100 questions\*

Subject	Percent	Number of Questions
<b>MWA A: Common Occupational Skills</b>	11%	
<b>Task A-1:</b> Performs safety related functions		2
<b>Task A-2:</b> Uses tools and equipment		2
<b>Task A-3:</b> Organizes work		2
<b>Task A-4:</b> Fabricates and installs support components		2
<b>Task A-5:</b> Commissions and decommissions electrical systems		2
<b>Task A-6:</b> Uses communication and mentoring techniques		1
<b>MWA B: Installs, Services and Maintains Generating, Distribution and Service Systems</b>	28%	
<b>Task B-7:</b> Installs, services and maintains consumer/supply services and metering equipment		4
<b>Task B-8:</b> Installs, services and maintains protection devices		4
<b>Task B-9:</b> Installs, services and maintains power distribution equipment		4
<b>Task B-10:</b> Installs, services and maintains power conditioning, uninterruptible power supply (UPS) and surge suppression systems		2
<b>Task B-11:</b> Installs, services and maintains bonding and grounding, and ground fault protection and detection systems		4
<b>Task B-12:</b> Installs, services and maintains power generation and conversion systems		2
<b>Task B-13:</b> Installs, services and maintains renewable energy generating and storage systems		2
<b>Task B-14:</b> Installs, services and maintains high voltage systems		2

<b>Task B-15:</b> Installs, services and maintains transformers		4
<b>MWA C: Installs, Services and Maintains Wiring Systems</b>	30%	
<b>Task C-16:</b> Installs, services and maintains raceways, conductors, cables and enclosures		9
<b>Task C-17:</b> Installs, services and maintains branch circuitry and devices		9
<b>Task C-18:</b> Installs, services and maintains heating, ventilating and air-conditioning (HVAC) systems		4
<b>Task C-19:</b> Installs, services and maintains electric heating systems		4
<b>Task C-20:</b> Installs, services and maintains exit and emergency lighting systems		3
<b>Task C-21:</b> Installs, services and maintains cathodic protection systems		1
<b>MWA D: Installs, Services, and Maintains Motors and Control Systems</b>	21%	
<b>Task D -22:</b> Installs, services and maintains motor starters and controls		8
<b>Task D -23:</b> Installs, services and maintains drives		4
<b>Task D -24:</b> Installs, services and maintains motors		6
<b>Task D -25:</b> Installs, programs, services and maintains automated control systems		3
<b>MWA E: Installs, Services and Maintains Signaling and Communication Systems</b>	10%	
<b>Task E -26:</b> Installs, services and maintains signaling systems		4
<b>Task E -27:</b> Installs, services and maintains communication systems		3
<b>Task E -28:</b> Installs, services and maintains integrated control systems		3
<b>Total</b>	100%	100

*\*The number of questions on an interprovincial examination, assigned to assess each major work activity of the RSOS, as derived from the collective input from workers within the trade across Canada.*

**Note:**

- Examinations are based on the **2021 National Electrical Code**.
- Candidates writing the examination will be provided a copy of the 2021 National Electrical Code Book.
- A Reference Material Booklet will also be supplied with the examination. The Reference Material Booklet will include Acronyms, Formulas and Figures/Diagrams.

### **Suggested trade resources when preparing for the examination.**

To assist you, a list of reference textbooks is provided below. Note that ISBN numbers are subject to change. Please consult with your supplier to access their most current version of the text you are acquiring. It is not necessary to use these specific textbooks; you may find others which will be equally beneficial. You are encouraged to seek additional reference materials in all test areas.

- Applications of Electrical Construction 3<sup>rd</sup> Edition by Clidero ISBN 9780772517197
- Delmar's Standard Textbook of Electricity 7<sup>th</sup> Edition by Herman Delmar Publishers ISBN 9781337900348
- Electric Motor Control 10<sup>th</sup> Edition by Herman Delmar Publishers ISBN 9781133702818  
Electronics for Industrial Electricians 7<sup>th</sup> Edition by Herman Delmar Publishers ISBN 9781305505995
- The Canadian Electrical Code 2021

### **Optional:**

- Electric Circuits and Machines 2<sup>nd</sup> Edition by Lister ISBN 9780070875685
- Practical Problems in Mathematics for Electricians 9<sup>th</sup> Edition by Herman Delmar Publishers ISBN 9781111313470

Individual Learning Modules (ILMs) for the Construction Electrician trade may be ordered through the Saskatchewan Polytechnic Bookstore Call Centre: 1-866-569-8398. They are also available through [ILM learning](#).

Modules for the Construction Electrician trade developed by the Industry Training Authority of British Columbia are also available at: <https://www.crownpub.bc.ca> under Electrician Apprenticeship Program.

### **Those studying for their Interprovincial examination may wish to refer to other Level booklists for additional study materials.**

\*Unless otherwise noted, books listed here are available through the Saskatchewan Polytechnic Bookstore Call Centre: 1-866-569-8398.

NOTE: Textbooks **are not** usually available from libraries. When texts are being purchased, candidates should allow several weeks for delivery and several weeks for studying.

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This information is subject to change without notice.

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