

# Solutions Manual for Electrical Wiring Residential 9th Mullin

SOLUTIONS MANUAL SAMPLE PREVIEW

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**Solutions Manual**

## Unit 1 - General Information for Electrical Installations

### REVIEW

**Note:** Where applicable, responses should be written in complete sentences.

**1. What is the difference between a code and a standard?**

- a. Codes are standards that deal with life safety issues.
- b. Standards describe minimum performance levels.

See **Codes and Standards**.

**2. What *Code* sets standards for the installation of electrical equipment?**

The *Canadian Electrical Code, Part I* sets the basic standard, with local and provincial codes as standards that also must be considered. See **Codes and Standards**.

**3. What authority enforces the standards set by the *CEC*?**

The provincial or local electricity inspection authority enforces the standards set by the *CEC*. See **Codes and Standards**.

**4. Does the *CEC* provide minimum or maximum standards?**

The *CEC* standards are minimum standards but are expressed in both minimum and maximum terms; e.g., *Rule 2-308* is a minimum working space of 1 m around electrical equipment, while *Rule 8-104* is a maximum circuit loading. Both of these are minimum standards. See **Codes and Standards**.

**5. What do the letters CSA signify?**

CSA signifies Canadian Standards Association. See **Testing and Accreditation | CSA Group**.

**6. Does compliance with the *CEC* always result in an electrical installation that is adequate, safe, and efficient? Why?**

Section 0 Object of the *CEC* states that “Compliance with the requirements of this Code and proper maintenance will ensure an essentially safe installation.” However, if adequate provision is not made for future expansion, a hazardous condition could develop. See **Codes and Standards**.

**7. What are the general sections of the CEC?**

Under General arrangement in the Preface of the CEC, it states that the general sections are Sections 0 to 16, and 26.

**8. Is the section of the CEC that deals with wiring methods a general section or an amending section?**

The section of the CEC that deals with wiring methods is a general section.  
See **Codes and Standards**, CEC Preface.

**9. When is an electrical installation required to be inspected?**

ALL work is required to be inspected. See **Electrical Inspection**, CEC 2-004.

**10. What should you look for when trying to determine if a piece of electrical equipment is approved for use in Canada?**

You should look for the CSA logo or other approval mark on the equipment. See **Testing and Accreditation**.

**11. If a piece of electrical equipment is not approved for use in Canada, what should you do?**

Special inspection should be obtained for a piece of electrical equipment that is not approved for use in Canada. *Rule 2-024 references Appendix B, which cautions installers that field modifications may void the designated certification on a piece of equipment.* See **Testing and Accreditation**, CEC 2-024.

**12. When the words “shall be” appear in a code reference, they mean that it (must) (may) (does not have to) be done. (Underline the correct answer.)**

See **Codes and Standards | Some Code Terminology**, CEC C11.1 in Appendix C.

**13. Why is it important for standards organizations to exist?**

Standards provide a framework of language, behaviour, and performance that match the expectations of consumers. Consumers can expect quantifiable, reliable performance from products and services that adhere to a reputable standard. In the absence of a standard, all goods and services become subjective and thus will vary between manufacturers and practitioners. See **Testing and Accreditation**.

**14. Which Red Seal Skill requires you to identify sources of information relevant to planning job tasks, specifically creating and keeping to job schedules?**

Task A-3.03. See Red Seal Occupational Standard.