FREE PRACTICE QUESTIONS · MASTER ELECTRICIAN (SCC) · ALBERTA

TEN FREE ALBERTA MASTER ELECTRICIAN EXAM PRACTICE QUESTIONS.

Edited by Trevor Mulder · Sources: 2024 Exam Kit, CEC Rule numbers · Last checked October 25, 2026

Ten practice questions for Alberta's Master Electrician exam, each with four options and one correct answer. The Safety Codes Council describes the exam as 120 multiple-choice questions in two parts: Part 1, Alberta Acts and Regulations, 50 questions on the documents in its 2024 Exam Kit, and Part 2, the Canadian Electrical Code, 70 questions. These are original questions written by TicketPrep from the Exam Kit documents and the CEC rule numbers; none of them comes from the exam. They are free to use, print and share. There is nothing to sign up for on this page.

01 How to use these

The questions come from the TicketPrep Alberta ME bank, which groups the two parts into four units of our own: Units A and B for Part 1, Units C and D for Part 2. Four of the ten are Part 1 questions, two each from Unit A (the Safety Codes Act, ME certification and permits) and Unit B (trades law, OHS, WCB, STANDATA and the AEUC), and six are Part 2, three each from Unit C (CEC rules) and Unit D (CEC calculations), each on a different one of our objectives. The Council publishes only the two parts and their 50 and 70 questions, so the units and the split are ours. Two of the ten are calculations. Answer each one before opening the explanation. Every explanation covers all four options, because knowing *why* a wrong answer is wrong is most of the skill.

– **Pace.** Each part has 3.5 hours: about 4 minutes 12 seconds a question in Part 1 and 3 minutes in Part 2. Try these at that pace, with the books open.

- **Books.** The exam is open book: the Council allows the CEC, Part I, 26th edition (2024), which you buy separately, and its free 2024 Exam Kit, which holds every Part 1 document. The questions cite the Rule, section or bulletin they rest on, so you can practise finding it.
- **Print.** The printed version shows the questions and the answer key without the explanations, so it works as a handout. The explanations are on the web page.
- **Mark.** Score the four Part 1 and six Part 2 questions separately. The Council's pass rule needs 60 per cent or more on each part and a 75 per cent average of the two part scores, so a strong Part 2 cannot carry a Part 1 under 60 per cent.

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02 The questions

Q1 · PROCEDURAL · PART 1 · UNIT A SAFETY CODES ACT, ME CERTIFICATION AND PERMITS

An ME donates his labour to wire a new kitchen addition at his community hall and charges nothing for the work. Under the Safety Codes Act, what is his position?

A. He owes only the vendor's duty for the materials he supplies

B. He is a volunteer, so the hall's owner carries all the duties

C. He is a contractor only for work he does for gain or profit

D. He is a contractor and must ensure the Act is complied with

Q2 · RECALL · PART 1 · UNIT A SAFETY CODES ACT, ME CERTIFICATION AND PERMITS

The Administrator issues an ME certificate under CPR s.4 and specifies no term in it. For how long is the certificate valid, unless suspended or cancelled first?

A. Until the next CEC edition is adopted in Alberta

B. Three years, one CEC code cycle

C. One year from the date of issue

D. Five years, the period the experience test looks back over

Q3 · RECALL · PART 1 · UNIT B TRADES, OHS, WCB, STANDATA AND THE AEUC

An ME's worker has been off on a WCB-Alberta claim for two weeks and comes back to work on Monday. According to WCB-Alberta, when must the ME's company tell WCB-Alberta about the return?

A. Within 24 hours of the return to work

B. Within 72 hours of the return to work

C. With the next annual return of assessable earnings

D. Only if the worker comes back on modified duties

Q4 · RECALL · PART 1 · UNIT B TRADES, OHS, WCB, STANDATA AND THE AEUC

An ME is designing a new 12-storey hotel with 120/208 V and 347/600 V systems. Under STANDATA 24-ECB-004, what conductor colour coding does Alberta recommend for the new 347/600 V circuits?

A. Orange, brown and yellow, to tell them apart from the 120/208 V circuits

B. Red, black and blue, with raceways, boxes and panels marked by voltage

C. Orange, brown and yellow, as the code requires above 150 V to ground

D. Any colours, provided each panelboard directory states the system voltage

Q5 · RECALL · PART 2 · UNIT C CANADIAN ELECTRICAL CODE RULES

A 600 A feeder in a hospital's central plant will run as single-conductor armoured cables in cable tray. Under CEC Rule 12-106, what armour must these current-carrying cables have?

A. Any armour, if laid in trefoil

B. Galvanized steel interlocking armour

C. Steel wire armour, bonded at both ends

D. Non-magnetic armour, such as aluminum

Q6 · PROCEDURAL · PART 2 · UNIT C CANADIAN ELECTRICAL CODE RULES

A new house will use a plate electrode buried in the soil under its basement. Under CEC Rule 10-102 2) c) as STANDATA 24-ECB-010 explains it, how deep must the plate be?

A. Directly under the basement slab, in full contact with the soil

B. At least 600 mm below the finished grade outside the house walls

C. At least 600 mm below the final basement floor surface

D. At least 600 mm below the top of the nearest foundation footing

Q7 · RECALL · PART 2 · UNIT C CANADIAN ELECTRICAL CODE RULES

In CEC 2024, Rules 12-500 to 12-524 set the installation rules for non-metallic-jacketed cable. To which of these cables do they apply?

A. Type NMD90 branch-circuit cable in a wood-frame house

B. Type FAS cable installed as part of a fire alarm system

C. Type NMWU cable run in a wet location to a detached garage

D. Type ACWU90 jacketed armoured cable feeding a barn

Q8 · RECALL · PART 2 · UNIT D CANADIAN ELECTRICAL CODE CALCULATIONS

An ME's permit covers a new house whose service calculation includes a 40 A EVSE on its own branch circuit. How does Rule 8-104 treat the EVSE branch circuit and the house's calculated service load?

A. The branch circuit is continuous; the service load is not

B. Both are continuous, since the EVSE may charge for hours

C. Neither is continuous, since dwelling loads are diverse

D. The service load is continuous; the branch circuit is not

Q9 · CALCULATION · PART 2 · UNIT D CANADIAN ELECTRICAL CODE CALCULATIONS

An addition to a house adds ten 1500 W, 240 V baseboard heaters, all on breakers marked for continuous operation at 80 %. Under Rule 62-114, how many heating branch circuits must the ME provide, at the least?

A. 2 branch circuits

B. 3 branch circuits

C. 4 branch circuits

D. 5 branch circuits

Q10 · CALCULATION · PART 2 · UNIT D CANADIAN ELECTRICAL CODE CALCULATIONS

On a strip mall's rooftop, a 2-gang FS box (Table 23: 14 No. 12 conductors) will hold a GFCI receptacle and a switch, each on its own single strap, and one pair of insulated-cap connectors. All conductors are No. 12. Under Rule 12-3034 2), what is the most No. 12 conductors the box may contain?

A. 8 conductors

B. 9 conductors

C. 11 conductors

D. 13 conductors

03 Answer key

QUESTION	ANSWER	PART AND OUR UNIT
Q1	D	Part 1 · Unit A Safety Codes Act, ME certification and permits
Q2	C	Part 1 · Unit A Safety Codes Act, ME certification and permits
Q3	A	Part 1 · Unit B Trades, OHS, WCB, STANDATA and the AEUC

QUESTION	ANSWER	PART AND OUR UNIT
Q4	B	Part 1 · Unit B Trades, OHS, WCB, STANDATA and the AEUC
Q5	D	Part 2 · Unit C Canadian Electrical Code rules
Q6	C	Part 2 · Unit C Canadian Electrical Code rules
Q7	B	Part 2 · Unit C Canadian Electrical Code rules
Q8	A	Part 2 · Unit D Canadian Electrical Code calculations
Q9	C	Part 2 · Unit D Canadian Electrical Code calculations
Q10	B	Part 2 · Unit D Canadian Electrical Code calculations

04 More free questions

For the exam itself, the Alberta Master Electrician exam guide covers the two parts, the pass rule, the books you may use, booking and the fees, and the Alberta Master Electrician practice test page has five more sample questions and describes the full TicketPrep bank. Each of our four units also has ten free questions of its own: Unit A, Unit B, Unit C, Unit D. The same free format covers Ontario's Master Electrician exam and the electrical Red Seal trades too.

AB ME
Alberta Master Electrician practice test: five more questions

ON ME
Ontario Master Electrician questions

309A
Construction Electrician questions

HUB
All free practice questions

GUIDES
Exam guides and tools

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