

8. LET · Q_AU_VIC_LEA_O0008

A 230 V installation may have a total voltage drop of 11.5 V (5 %). The consumer mains already use 2.3 V. A new final subcircuit will carry 20 A using a cable with a voltage drop value of 11 mV/A.m. What is the maximum route length for this subcircuit?

1. 10.5 m
2. 20.9 m
3. 41.8 m
4. 52.3 m

Official sources: Listed as LEA scope or required reference by Energy Safe Victoria <https://www.energysafe.vic.gov.au/licensing/training-and-assessments/undertaking-licenced-electricians-assessment> · ESV LET sample paper (July 2026) lists AS/NZS 3008.1.1:2025 as reference material <https://www.energysafe.vic.gov.au/lea-sample-papers-and-marking-guides>

9. LET · Q_AU_VIC_LEA_O0009

A cable has a current-carrying capacity of 40 A for its installation method when installed alone. Grouping it with other loaded circuits requires a derating factor of 0.7. What is its derated current-carrying capacity?

1. 12 A
2. 28 A
3. 40 A
4. 57.1 A

Official sources: Listed as LEA scope or required reference by Energy Safe Victoria <https://www.energysafe.vic.gov.au/licensing/training-and-assessments/undertaking-licenced-electricians-assessment> · ESV LET sample paper (July 2026) lists AS/NZS 3008.1.1:2025 as reference material <https://www.energysafe.vic.gov.au/lea-sample-papers-and-marking-guides>

10. LET · Q_AU_VIC_LEA_O0010

A final subcircuit has a design current of 18 A. The installed cable has a derated current-carrying capacity of 27 A. Using the coordination rule design current $\leq$ device rating $\leq$ cable capacity, which circuit-breaker rating is suitable?

1. 16 A
2. 20 A
3. 32 A
4. 40 A

Official sources: Listed as LEA scope or required reference by Energy Safe Victoria <https://www.energysafe.vic.gov.au/licensing/training-and-assessments/undertaking-licenced-electricians-assessment>

11. LET · Q_AU_VIC_LEA_O0011

Under the Wiring Rules, what is the maximum rated residual current of RCDs required as additional protection on final subcircuits supplying socket-outlets and lighting in a new residential installation?

1. 10 mA
2. 30 mA
3. 100 mA
4. 300 mA

Official sources: Listed as LEA scope or required reference by Energy Safe Victoria <https://www.energysafe.vic.gov.au/licensing/training-and-assessments/undertaking-licenced-electricians-assessment>

A 120 V bathroom receptacle is protected by a Class A ground fault circuit interrupter. At what ground fault current must this device open the circuit?

1. 30 mA or more
2. 100 mA or more
3. 6 mA or more (it must not trip at 4 mA or less)
4. 15 A or more

Official sources: Red Seal exam breakdown, Task B-11 Bonding, grounding and ground fault systems <https://red-seal.ca/eng/trades/conselectric/exam-information.shtml> · Wiring code named in the ETOS exam registry <https://www.csagroup.org/>

A homeowner wants a 7.5 kW standby generator to supply selected 120/240 V circuits during utility outages. What does a properly installed transfer switch prevent?

1. The generator and the utility supply from being connected to the premises wiring at the same time, which could backfeed the utility lines
2. The generator from starting automatically
3. Load current from exceeding the generator nameplate rating in every case
4. The need to bond the generator frame

Official sources: Red Seal exam breakdown, Task B-12 Power generation and conversion systems <https://red-seal.ca/eng/trades/conselectric/exam-information.shtml> · Wiring code named in the ETOS exam registry <https://www.csagroup.org/>

A PV string has 12 modules in series. Each module has an open-circuit voltage of 40 V at standard test conditions. For the lowest expected ambient temperature at the site, the design uses a temperature correction factor of 1.14. What maximum open-circuit voltage should the string be designed for?

1. 421.1 V
2. 480 V
3. 547.2 V
4. 600 V

Official sources: Red Seal exam breakdown, Task B-13 Renewable energy systems <https://red-seal.ca/eng/trades/conselectric/exam-information.shtml> · Wiring code named in the ETOS exam registry <https://www.csagroup.org/>

Under the Canadian Electrical Code voltage classes, which of these system voltages is classified as high voltage?

1. 120/240 V
2. 347/600 V
3. 750 V
4. 4160 V

Official sources: Red Seal exam breakdown, Task B-14 High-voltage systems <https://red-seal.ca/eng/trades/conselectric/exam-information.shtml> · Wiring code named in the ETOS exam registry <https://www.csagroup.org/>

Cables are run across the ceiling of an escape corridor inside plastic trunking that is fixed with plastic plugs. What does BS 7671 require about the support of these cables?

1. Nothing extra, as long as the trunking lid is fitted
2. The cables must be supported so that they will not collapse prematurely in a fire, for example with steel clips or fixings in addition to the plastic trunking
3. The cables only need a larger cross-sectional area
4. The trunking must be painted with fire-retardant paint

Official sources: Wiring regulations named in the exam registry (IET) <https://electrical.theiet.org/> · AM2 topic scope, Sections A2-A5: Composite Installation <https://www.netservices.org.uk/am2/>

A house has a PME (TN-C-S) supply with a 25 mm² copper supply neutral conductor. What is the minimum copper cross-sectional area for the main protective bonding conductors to the gas and water pipes?

1. 4 mm²
2. 6 mm²
3. 10 mm²
4. 16 mm²

Official sources: Wiring regulations named in the exam registry (IET) <https://electrical.theiet.org/> · AM2 topic scope, Sections A2-A5: Composite Installation <https://www.netservices.org.uk/am2/>

A balanced three-phase load on a 400 V, 50 Hz supply draws 16 A per line at a power factor of 0.85. What is its active power? ($P = \sqrt{3} \times V_L \times I_L \times \text{pf}$)

1. 5,440 W
2. 9,422 W
3. 11,085 W
4. 16,320 W

Official sources: NET AM2 assessment outline, Sections A2-A5: Composite Installation <https://www.netservices.org.uk/am2/> · NET candidate guidance <https://www.netservices.org.uk/candidate-guidance/>

You are terminating a new three-phase circuit at a TP&N distribution board using the current harmonised colour identification. Which colours identify L1, L2 and L3?

1. Red, yellow, blue
2. Brown, black, grey
3. Brown, grey, blue
4. Black, brown, green-and-yellow

Official sources: Wiring regulations named in the exam registry (IET) <https://electrical.theiet.org/> · AM2 topic scope, Sections A2-A5: Composite Installation <https://www.netservices.org.uk/am2/>
