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37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E

PRACTICE QUESTIONS

CONNECTICUT OCCUPATIONAL TRADES

RZH7TXBW

CT C7 Limited Elec Sign

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for CONNECTICUT OCCUPATIONAL TRADES RZH7TXBW , each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, RZH7TXBW
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1

SINGLE CHOICE

An electrician holding a C7 Limited Electric Sign license in Connecticut is permitted to perform which of the following?

- ☐ A Installation of complete electrical wiring for a new commercial building.
- ☒ B Installation, alteration, and repair of electric signs and outline lighting, including the wiring and the associated electrical connections up to the disconnect.
- ☐ C Installation of 600-volt feeders supplying industrial machinery.
- ☐ D Replacement of service entrance conductors for a residential occupancy.

ANSWER B

WHY The C7 Limited Electric Sign license in Connecticut is specifically limited to the installation, alteration, and repair of electric signs and outline lighting systems. It does not authorize general building wiring, feeder work, or service entrance replacements. Option B correctly identifies the scope defined for this credential.

QUESTION 2

SINGLE CHOICE

Where a sign is supplied by a branch circuit, NEC Article 600 generally requires a disconnect for the sign. Where must this disconnect be located?

- ☐ A On the same floor as the sign and within 25 ft of the sign.
- ☐ B On the outside of the building with the service equipment.
- ☒ C Within sight of the sign or in a readily accessible location within the sign body, and capable of being locked in the open position.
- ☐ D Inside a locked panel located on the same wall as the sign.

ANSWER C

WHY NEC Article 600.6 requires that the disconnecting means be installed within sight of the sign or outline lighting system it controls, or that the disconnect be located within an enclosure that can be locked in the open position. This is the long-standing, well-documented requirement. The other options invent distances (25 ft) or locations not in the Code.

QUESTION 3

SINGLE CHOICE

Which of the following best describes the secondary conductors of a neon (high-voltage) sign installation, as covered by NEC Article 600?

- ☐ A They are treated like any other 120 V branch circuit conductor and must use standard THHN.
- ☒ B They are GTO cable or other listed high-voltage cable, run in accessible, dry locations, with the maximum permitted secondary voltage.
- ☐ C They may be spliced anywhere along the raceway run with standard wire nuts.
- ☐ D They must always be installed in rigid metal conduit regardless of location.

ANSWER B

WHY Secondary conductors on the output side of neon transformers are high-voltage conductors that must be listed GTO cable (or equivalent listed high-voltage cable), installed per Article 600 requirements in accessible, dry locations. Splice and conduit requirements are very specific. Options A, C, and D misstate these requirements.

QUESTION 4

SINGLE CHOICE

Metal parts of a sign body, raceways, and equipment associated with sign installations must be grounded per NEC Article 600. Which conductor is used for this purpose?

- ☐ A The neon transformer secondary conductor.
- ☒ B An equipment grounding conductor run with the supply conductors and connected to the sign metal parts.
- ☐ C The bonding conductor for the neon tubing only.
- ☐ D The neutral conductor, which serves as both the grounded conductor and the equipment grounding conductor.

ANSWER B

WHY NEC Article 600 requires that metal parts of a sign and associated raceways be connected to an equipment grounding conductor sized per Article 250 and run with the supply conductors. The neutral is a current-carrying conductor and may not serve as the equipment grounding conductor in this application.

QUESTION 5

SINGLE CHOICE

Per NEC Article 600, a listed electric sign must be marked by the manufacturer. Which of the following pieces of information is required to appear on this marking?

- ☐ A The sign installer's Connecticut license number.
- ☒ B The manufacturer's name, the voltage, current rating, and the letters 'SUITABLE FOR WET OR DRY LOCATIONS' as applicable.
- ☐ C The local power company's account number.
- ☐ D The name of the AHJ inspector who approved the sign.

ANSWER B

WHY NEC 600.4 requires manufacturer markings on listed signs that include, among other things, the manufacturer's name (or trademark), voltage rating, current rating, and suitability for wet, dry, or damp locations as applicable. License numbers, utility account numbers, and the inspector's name are not required manufacturer markings.

QUESTION 6

SINGLE CHOICE

When a sign is supplied by a branch circuit, NEC Article 600 sets requirements on the rating of the branch circuit overcurrent device relative to the sign load. Which statement is correct?

- ☒ A The branch-circuit overcurrent device may be rated up to 20 A and must not exceed the sign load by more than 50 percent, with a minimum load requirement of 1,200 VA per 20 A circuit.
- ☐ B The branch circuit may be loaded to 100% of the overcurrent rating regardless of sign size.
- ☐ C The branch-circuit overcurrent device rating must be at least double the sign VA.
- ☐ D The branch-circuit overcurrent device may not exceed 10 A.

ANSWER A

WHY NEC 600.5(B) is the well-known rule that branch circuits supplying signs may be loaded only up to a calculated maximum, with a minimum load (for example, the 1,200 VA minimum per 20 A circuit) used to size the conductors and OCPD so that signs are not grossly oversized relative to their use. The other options invent ratios or ratings not in the Code.

QUESTION 7

SINGLE CHOICE

Under Connecticut statutes and regulations governing occupational trades, a C7 Limited Electric Sign licensee may NOT perform which of the following without holding an additional license?

- ☐ A Wiring the electrical connection from the sign disconnect to the sign body.
- ☐ B Installing neon tubing inside a listed sign enclosure.
- ☒ C Wiring of convenience receptacles supplying general floor loads in the same building.
- ☐ D Replacing a failed neon transformer with a listed replacement of the same rating.

ANSWER C

WHY The C7 Limited Electric Sign license is restricted to sign and outline lighting work. Wiring of general convenience receptacles and other floor loads requires an E1 Unlimited Electrical Contractor or E2 Limited Electrical license (as applicable). Options A, B, and D are within the typical scope of the C7 sign license.

QUESTION 8

MULTIPLE CHOICE

Which of the following requirements apply when working on the secondary (high-voltage) side of a neon transformer during sign installation or service? (Choose two.)

- ☒ A De-energize the primary supply and lock out the disconnecting means before working on the secondary wiring, when practical.
- ☒ B Treat secondary conductors as energized at hazardous voltage even after the primary is opened, because the transformer output remains a shock hazard.
- ☐ C It is acceptable to use ordinary plastic wire nuts to splice GTO cable under any conditions.
- ☐ D A Class 2 signal circuit is the typical secondary voltage for a neon sign, so ordinary precautions apply.

ANSWER A • B

WHY Workers servicing the high-voltage secondary side of neon transformers must treat those conductors as a serious shock hazard even when the primary is open, and lockout/tagout of the primary disconnect is standard safe-work practice. Options C and D are incorrect: GTO is not spliced with ordinary wire nuts, and neon secondary circuits are not Class 2.

QUESTION 9

MULTIPLE CHOICE

Which of the following statements about outline lighting systems are correct per NEC Article 600? (Choose two.)

- ☒ **A** Outline lighting must be supplied by listed transformers or listed power supplies.
- ☐ **B** The secondary conductors of outline lighting may be concealed in walls or above non-accessible ceilings without any special protection.
- ☒ **C** Where run through building members, the secondary conductors must be protected in a manner consistent with NEC 600 rules (for example, in accessible locations and properly supported).
- ☐ **D** Outline lighting is permitted to be energized directly from 120 V branch-circuit conductors without any listed power supply.

ANSWER A - C

WHY Outline lighting is required to use listed transformers/power supplies and the secondary wiring has explicit protection and accessibility requirements in Article 600. Options B and D are incorrect: secondary wiring may not be concealed where inaccessible, and 120 V may not be applied directly to neon tubing without a listed transformer/power supply.