

01	☐ A	☐ B	☐ C	☐ D	☐ E
02	☐ A	☐ B	☐ C	☐ D	☐ E
03	☐ A	☐ B	☐ C	☒ D	☐ E
04	☐ A	☐ B	☒ C	☐ D	☐ E
05	☐ A	☒ B	☐ C	☐ D	☐ E
06	☐ A	☐ B	☒ C	☐ D	☐ E
07	☐ A	☐ B	☐ C	☐ D	☒ E
08	☐ A	☒ B	☐ C	☐ D	☐ E
09	☐ A	☐ B	☒ C	☐ D	☐ E
10	☐ A	☒ B	☐ C	☐ D	☐ E
11	☒ A	☐ B	☐ C	☐ D	☐ E
12	☐ A	☐ B	☐ C	☐ D	☒ E
13	☐ A	☐ B	☐ C	☒ D	☐ E

14	☐ A	☒ B	☐ C	☐ D	☐ E
15	☒ A	☐ B	☐ C	☐ D	☐ E
16	☐ A	☐ B	☒ C	☐ D	☐ E
17	☐ A	☐ B	☒ C	☐ D	☐ E
18	☒ A	☐ B	☐ C	☐ D	☐ E
19	☐ A	☒ B	☐ C	☐ D	☐ E
20	☐ A	☐ B	☒ C	☐ D	☐ E
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22	☐ A	☐ B	☐ C	☒ D	☐ E
23	☐ A	☒ B	☐ C	☐ D	☐ E
24	☒ A	☐ B	☐ C	☐ D	☐ E
25	☐ A	☒ B	☐ C	☐ D	☐ E
26	☐ A	☐ B	☐ C	☒ D	☐ E

27	☐ A	☒ B	☐ C	☐ D	☐ E
28	☐ A	☐ B	☐ C	☐ D	☒ E
29	☒ A	☐ B	☐ C	☐ D	☐ E
30	☐ A	☐ B	☐ C	☒ D	☐ E
31	☐ A	☐ B	☐ C	☒ D	☐ E
32	☒ A	☐ B	☐ C	☐ D	☐ E
33	☐ A	☐ B	☒ C	☐ D	☐ E
34	☐ A	☐ B	☐ C	☒ D	☐ E
35	☐ A	☐ B	☐ C	☒ D	☐ E
36	☐ A	☐ B	☐ C	☐ D	☒ E
37	☒ A	☐ B	☐ C	☐ D	☐ E
38	☐ A	☐ B	☐ C	☒ D	☐ E
39	☒ A	☐ B	☐ C	☐ D	☐ E

PRACTICE QUESTIONS

ALASKA ELECTRICAL

X65XZ3WD

AK Inside Communications Administrator

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for ALASKA ELECTRICAL X65XZ3WD , 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, X65XZ3WD
- the question number
- the email address on your order

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

QUESTION 1

MULTIPLE CHOICE

Which of the following are required markings or listings for communications cable (e.g., CM, CMR, CMP) used inside a commercial building per the NEC? (Choose two.)

- ☒ **A** UL listing mark indicating the cable has been tested for the appropriate flammability/rating
- ☐ **B** Manufacturer's internal part number only
- ☒ **C** Nationally Recognized Testing Laboratory (NRTL) certification
- ☐ **D** Color of the jacket selected by the installing contractor

ANSWER A - C

WHY Communications cables installed inside buildings must carry a listing from a Nationally Recognized Testing Laboratory (NRTL) such as UL, and the listing mark indicates the cable has been tested and rated for the application (e.g., CM, CMR, CMP). Manufacturer part numbers and jacket color chosen by the installer are not substitutes for NRTL certification or rating markings.

QUESTION 2

MULTIPLE CHOICE

When installing communications cabling in a cable tray, which of the following are NEC-acceptable practices? (Choose two.)

- ☒ **A** Maintaining separation from open conductors of electric lighting/power to the extent required by Article 800
- ☒ **B** Bonding and grounding the metallic cable tray in accordance with the applicable article
- ☐ **C** Stapling communications cable directly to the bottom of the cable tray with no securing hardware
- ☐ **D** Allowing communications cables to rest directly on the top of a fluorescent lighting ballast housing

ANSWER A - B

WHY NEC Article 800 requires that communications cables in a cable tray maintain the required separation from power conductors and that metallic cable trays be bonded and grounded. Stapling cables to the tray or allowing them to rest on fluorescent fixtures are not acceptable practices.

QUESTION 3

TRUE FALSE

Communications cable run vertically in a shaft must be rated for the application (e.g., CMR or CMP) per NEC Article 800 requirements for vertical (riser) runs.

☒ **A** True☐ B False**ANSWER A**

WHY True. NEC Article 800 specifies that communications cables run in vertical runs (risers) must be listed and rated for the application, such as CMR (riser-rated) or CMP (plenum-rated) cables.

QUESTION 4

SINGLE CHOICE

According to NEC Article 800, which type of communications cable is permitted in plenums, ducts, and other spaces used for environmental air without being enclosed in a raceway?

☐ A CM☐ B CMR☒ **C** CMP☐ D CMX**ANSWER C**

WHY CMP (Communications Plenum) cable is listed and tested for use in plenum spaces, ducts, and other spaces used for environmental air without requiring enclosure in a raceway. CM (general), CMR (riser), and CMX (residential/limited use) are not permitted in plenum spaces unless enclosed in a raceway.

QUESTION 5

SINGLE CHOICE

Per NEC Article 800, what is the minimum separation that must be maintained between a communications cable and a 480V power conductor when they are not separated by a permanent barrier?

- ☒ **A** 2 inches
- ☐ B 6 inches
- ☐ C 12 inches
- ☐ D 24 inches

ANSWER A

WHY NEC Article 800 requires a minimum of 2 inches (50 mm) of separation between communications cables and power conductors (open or in a raceway) when no permanent barrier is provided. Larger separations or barriers are required where power exceeds 300V to ground, and other conditions apply.

QUESTION 6

SINGLE CHOICE

Per NEC Article 800, where a primary protector is used on communications cable entering a building, the grounding conductor must terminate to which of the following as the preferred electrode?

- ☐ A Any convenient metal water pipe within the building
- ☐ B The building's interior gas pipe
- ☒ **C An accessible, listed grounding electrode (e.g., building grounding electrode system)**
- ☐ D A plastic PVC conduit that runs outside the building

ANSWER C

WHY NEC Article 800 requires the grounding conductor of a primary protector to terminate to a listed grounding electrode, typically the building's grounding electrode system. Interior metal water pipes used for the building's grounding electrode system are permitted, but a gas pipe or PVC conduit is not permitted as a grounding electrode.

QUESTION 7

SINGLE CHOICE

What is the minimum size copper bonding/grounding conductor required by NEC Article 800 from the communications primary protector to the grounding electrode?

- ☐ A 24 AWG
- ☒ B 14 AWG
- ☐ C 10 AWG
- ☐ D 6 AWG

ANSWER B

WHY NEC Article 800 specifies a minimum 14 AWG copper bonding/grounding conductor from the primary protector to the grounding electrode. Larger sizes may be required by other conditions or other articles.

QUESTION 8

SINGLE CHOICE

Which of the following best describes a Category 6A (Cat 6A) cable's performance characteristic compared to Category 6 (Cat 6) cable as defined by TIA-568?

- ☐ A Cat 6A supports up to 250 MHz, while Cat 6 supports up to 500 MHz
- ☒ B Cat 6A supports up to 500 MHz, while Cat 6 supports up to 250 MHz
- ☐ C Cat 6A supports up to 100 MHz, while Cat 6 supports up to 250 MHz
- ☐ D Both Cat 6A and Cat 6 support up to 250 MHz

ANSWER B

WHY TIA-568 specifies that Category 6 cable supports signaling up to 250 MHz, while Category 6A supports signaling up to 500 MHz and is designed to support 10 Gigabit Ethernet (10GBASE-T) over a full 100 m channel.

QUESTION 9

SINGLE CHOICE

Per TIA-568, what is the maximum horizontal cable length from the telecommunications outlet (TO) to the patch panel in the telecommunications room (TR) for a structured cabling channel?

- ☐ A 50 m (164 ft)
- ☒ B 90 m (295 ft)
- ☐ C 100 m (328 ft)
- ☐ D 120 m (394 ft)

ANSWER B

WHY TIA-568 limits the permanent link horizontal cable length to 90 m (295 ft). Combined with up to 10 m (33 ft) of patch cords and equipment cables, the total channel length is 100 m (328 ft). The 90 m figure refers specifically to the horizontal cable run from the outlet to the TR.