

Instructions:**Fee \$100**

1. Print these pages.
2. Circle the correct answers and transfer them to the answer sheet on last pages.
3. Page down to the last page for the verification forms and mailing instructions.
4. Use this link ([click here](#)) for reference material and your 2023 NEC code book (optional).
5. 270 questions are listed in a straight order format throughout the complete quiz.

Course: 2023 NEC Changes Quiz 270**This course is valid for these credentials:**

	<u>Cred Code</u>	<u>Credit Hours</u>
Registered/Beginner Electrician	BE	9.0
Commercial Electrical Inspector	CEI	9.0
Industrial Journeyman Electrician	IJE	9.0
Journeyman Electrician	JE	9.0
Master Electrician	ME	9.0
Residential Journeyman Electrician	RJE	9.0
Residential Master Electrician	RME	9.0
UDC-Electrical Inspector	UEI	9.0

2023 NEC Changes 270**100 Definitions**

1. All definitions will now be located in _____. In previous code cycles, definitions could be found throughout the code. In addition, and as a result, the subdivisions within Articles were removed.
 - a. subdivisions within Articles
 - b. Article 100
 - c. code sections
 - d. all of the above
2. A revision has been made to the scope of Article _____ and modified by removing language for those terms used in two or more articles.
 - a. 90
 - b. 100
 - c. 110
 - d. 210
3. This revision now requires all definitions in _____ location and the changes to the scope reflect these changes.
 - a. both
 - b. all

- c. one
 - d all of the above
4. Definition of Class 4 circuits has been added to the NEC. Class 4 circuits are new, and the definition correlates with new article _____.
- a. 726 – Class 1 Power Systems
 - b. 726 – Class 2 Power Systems
 - c. 726 – Class 3 Power Systems
 - d. 726 – Class 4 Power Systems
5. Class 4 Circuit. The portion of the wiring system between the load side of a _____, as appropriate. Due to the active monitoring and control of the voltage and current provided, a Class 4 circuit considers safety from a fire initiation standpoint and provides acceptable protection from electric shock.
- a. Class 4 transmitter
 - b. Class 4 receiver
 - c. Class 4 utilization equipment
 - d. all of the above
6. Informational Note: A Class ____ circuit is also commonly referred to as a fault-managed power circuit.
- a. 1
 - b. 2
 - c. 3
 - d. 4
7. The NEC previously addressed Class 1, 2 and 3 Power systems and now the new Class 4 Power System. There is more info given in the NEC to include Class 4 Devices, Receivers, Transmitters, etc. If you are involved in this work, please reference _____.
- a. Article 726
 - b. NEC 70
 - c. none of the above
 - d. both a & b
8. Article 110 General Requirements for Electrical Installations. 110.26 Spaces About Electrical Equipment. Working space, and access to an egress from working space, shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment. Open equipment doors _____ impede access to and egress from the working space.
- a. are allowed to
 - b. shall not
 - c. could possibly
 - d. none of the above

9. Access or egress is impeded if one or more simultaneously opened equipment doors restrict working space access to be less than _____.
a. 610 mm wide and 2.0 m high
b. 24 in. wide and 6-1/2 ft high
c. 24 in. high and 6-1/2 ft wide
d. both a & b
10. Article 110 General Requirements for Electrical Installations. 110.29 In Sight From. Where this Code specifies that one equipment shall be "_____" another equipment.
a. in sight from
b. within sight from
c. within sight of
d. all of the above
11. The specified equipment shall be visible and not more than _____ distant from the other.
a. 15 m
b. 50 ft
c. none of the above
d. both a & b
12. 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel. The GFCI requirements for receptacles in kitchens expanded to include all _____, not just those that serve countertop surfaces.
a. 125 receptacles 150V to ground or less
b. 125 – 250V receptacles 120V to ground or less
c. 125 – 250V receptacles 150V to ground or less
d. 125 receptacles 120V to ground or less
13. 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel. (A) Dwelling Units. (7) Areas with sinks and permanent provisions for _____.
a. food preparation
b. beverage preparation
c. cooking
d. all of the above
14. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel. (B) Other Than Dwelling Units. The GFCI requirements for receptacles in non-dwelling kitchens were expanded to include:
a. ~~Kitchens – or areas with a sink and permanent provisions for either food preparation or cooking~~
b. Areas with sinks and permanent provisions for food preparation, beverage preparation, or cooking.

- c. Buffet serving areas with permanent provisions for food serving, beverage serving, or cooking.
- d. all of the above

15. (B) Other Than Dwelling Units. The GFCI requirements for receptacles in non-dwelling kitchens were expanded to include: (7) Sinks where receptacles or cord-and-plug connected fixed or stationary appliances are installed within _____ from the top inside edge of the bowl of the sink.

- a. 1.8 m
- b. 6 ft
- c. 72"
- d. all of the above

16. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel.

(B) Other Than Dwelling Units. (13) _____, where receptacles are installed within 1.8 m (6 ft.) from the top inside edge or rim or from the conductive support framing of the vessel or container.

- a. Aquariums
- b. Bait wells
- c. Similar open aquatic vessels or containers, such as tanks or bowls
- d. all of the above

17. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel.

(D) Specific Appliances. GFCI protection shall be provided for the branch circuit or outlet supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single- or 3-phase:

- a. Automotive vacuum machines
- b. Drinking water coolers and bottle fill stations
- c. High-pressure spray washing machines
- d. all of the above

18. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel.

(D) Specific Appliances. GFCI protection shall be provided for the branch circuit or outlet supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single- or 3-phase:

- a. Tire inflation machines
- b. Vending machines
- c. Sump pumps
- d. all of the above

19. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel.

(D) Specific Appliances. GFCI protection shall be provided for the branch circuit or outlet supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single- or 3-phase:

- a. Dishwashers
- b. Electric ranges
- c. Wall-mounted ovens
- d. all of the above

20. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel.

(D) Specific Appliances. GFCI protection shall be provided for the branch circuit or outlet supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single- or 3-phase:

- a. Counter-mounted cooking units
- b. Clothes dryers
- c. Microwave ovens
- d. all of the above

21. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel.

(F) Outdoor Outlets. For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection:

- a. Garages that have floors located at or below grade level
- b. Accessory buildings
- c. Boathouses
- d. all of the above

22. (F) Outdoor Outlets. For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection: If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet _____ supplied with GFCI protection.

- a. may be
- b. is recommended to be
- c. shall be
- d. any of the above

23. (F) Outdoor Outlets. For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection: Exception No. 1 GFCI Protection _____ be required on lighting outlets

other than those covered in 210.8(C).

- a. shall
- b. shall not
- c. both a & b
- d. none of the above

24. (F) Outdoor Outlets. For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection: Exception No. 2 GFCI Protection _____ be required for listed HVAC equipment.

- a. shall
- b. shall not
- c. both a & b
- d. none of the above

25. (F) Outdoor Outlets. For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection: Exception No. 2 GFCI Protection shall not be required for listed HVAC equipment. This exception shall expire_____.

- a. September 1, 2024
- b. September 1, 2025
- c. September 1, 2026
- d. September 1, 2027

26. A revision has been made to clarify that all outdoor outlets for dwellings, other than those covered in 210.8(A), Exception No. 1, including outlets installed in_____, are required to have GFCI protection for personnel.

- a. garages that have floors located at or below grade level
- b. accessory building
- c. boathouses
- d. all of the above

27. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.11 Branch Circuits Required. (C) Dwelling Units.

(4) Garage Branch Circuits. In addition to the number of branch circuits required by other parts of this section, at least one 120-volt, 20-ampere branch circuit shall be installed to supply receptacle outlets, including those required by _____ for attached garages and in detached garages with electric power. This circuit shall have no other outlets.

- a. 210.50(G)(1)
- b. 210.51(G)(1)
- c. 210.52(G)(1)

d. 210.53(G)(1)

28. 210.11 Branch Circuits Required. (C) Dwelling Units. (4) Garage Branch Circuits. Additional branch circuits rated _____ shall be permitted to serve receptacle outlets other than those required by 210.52(G)(1).

- a. 15 amperes
- b. greater than 15 amperes
- c. both a or b
- d. none of the above

29. 210.11 Branch Circuits Required. (C) Dwelling Units. (4) Garage Branch Circuits. Exception No. 1: This circuit shall be permitted to supply outdoor receptacle outlets.

- a. true
- b. false

30. 210.11 Branch Circuits Required. (C) Dwelling Units. (4) Garage Branch Circuits. Exception No. 2: Where the 20-ampere circuit supplies a _____ vehicle bay garage, outlets for other equipment within the same garage shall be permitted to be supplied in accordance with 210.23(A)(1) and (A)(2).

- a. single
- b. double
- c. multi
- d. none of the above

31. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.12 Arc-Fault Circuit-Interrupter Protection. (D) Other Occupancies. All 120-volt, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through (A)(6):

- a. Guest rooms and guest suites of hotels
- b. Guest rooms and guest suites of motels
- c. both a & b
- d. none of the above

32. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal 210.12 Arc-Fault Circuit-Interrupter Protection. (D) Other Occupancies. All 120-volt, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through (A)(6):

- a. Areas used exclusively as patient sleeping rooms in nursing homes
- b. Areas used exclusively as patient sleeping rooms in limited-care facilities
- c. both a & b
- d. none of the above

33. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal

210.12 Arc-Fault Circuit-Interrupter Protection. (D) Other Occupancies. All 120-volt, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through (A)(6):

- a. Areas designed for use exclusively as sleeping quarters in fire stations, police stations
- b. Areas designed for use exclusively as sleeping quarters in ambulance stations, rescue stations
- c. Areas designed for use exclusively as sleeping quarters in ranger stations, and similar locations
- d. all of the above

34. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal

210.17 Guest Rooms and Guest Suites. Guest rooms and guest suites in the following occupancies that are provided with permanent provisions for cooking shall have branch circuits installed to meet the rules for dwelling units:

- a. Hotels
- b. Motels
- c. Assisted living facilities
- d. all of the above

35. Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal

210.17 Guest Rooms and Guest Suites. Guest rooms and guest suites in the following occupancies that are provided with permanent provisions for cooking shall have branch circuits installed to meet the rules for dwelling units:

Informational Note No. 1: See 210.11(C)(2) and 210.52(F), Exception No. 2, for information on _____.

- a. laundry branch circuits
- b. receptacle outlets
- c. both a & b
- d. none of the above

36. 210.23 Permissible Loads, Multiple-Outlet Branch Circuits. (A) 10-Ampere Branch Circuits. A 10-ampere branch circuit shall comply with the requirements of 210.23(A)(1) and (A)(2). (1) Loads Permitted for 10-Ampere Branch Circuits. A 10-ampere branch circuit shall be permitted to supply one or more of the following:

- a. Lighting outlets
- b. Dwelling unit exhaust fans on bathroom or laundry room lighting circuits
- c. A gas fireplace unit supplied by an individual branch circuit
- d. all of the above

37. (2) Loads Not Permitted for 10-Ampere Branch Circuits. A 10-ampere branch circuit shall not supply any of the following:

- a. Receptacle outlets

- b. Fixed appliances, except as permitted for individual branch circuits
- c. both a & b
- d. none of the above

38. (2) Loads Not Permitted for 10-Ampere Branch Circuits. A 10-ampere branch circuit shall not supply any of the following:

- a. Garage door openers
- b. Laundry equipment
- c. both a & b
- d. none of the above

39. 240.4 Protection of Conductors. (D) Small Conductors. Unless specifically permitted in 240.4(E) or (G), the overcurrent protection shall not exceed that required by 240.4(D)(1) through (D)(8) after any correction factors for _____ have been applied.

- a. ambient temperature
- b. number of conductors
- c. both a & b
- d. none of the above

40. 240.4 Protection of Conductors. (D) Small Conductors. (3) 14 AWG Copper-Clad Aluminum. 10 amperes, provided all the following conditions are met:

- a. Continuous loads do not exceed 4 amperes
- b. Continuous loads do not exceed 6 amperes
- c. Continuous loads do not exceed 8 amperes
- d. Continuous loads do not exceed 10 amperes

41. 240.4 Protection of Conductors. (D) Small Conductors. (3) 14 AWG Copper-Clad Aluminum. 10 amperes, provided all the following conditions are met: (2) Overcurrent protection is provided by one of the following:

- a. Branch-circuit-rated circuit breakers are listed and marked for use with 14 AWG copper-clad aluminum conductor.
- b. Branch-circuit-rated fuses are listed and marked for use with 14 AWG copper-clad aluminum conductor.
- c. both a & b
- d. none of the above

42. Article 310 Conductors for General Wiring 310.3 Conductors.

(A) Minimum Size of Conductors. The minimum size of conductors for voltage ratings up to and including 2000 volts shall be _____, except as permitted elsewhere in this Code.

- a. 14 AWG copper
- b. 12 AWG copper-clad aluminum
- c. 12 AWG aluminum
- d. all of the above

43. 210.52(C) Countertops and Work Surfaces. (2) Island and Peninsular Countertops and Work Surfaces. Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with _____.

- a. 210.52(C)(1)
- b. 210.52(C)(2)
- c. 210.52(C)(3)
- d. 210.52(C)(4)

44. 210.52(C) Countertops and Work Surfaces. If a receptacle outlet is not provided to serve an island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the _____.

- a. island
- b. peninsular countertop
- c. work surface
- d. all of the above

45. 210.52(C) Countertops and Work Surfaces. (3) Receptacle Outlet Location. Receptacle outlets shall be located in one or more of the following:

- a. On or above, but not more than 500mm (20 in.) above, a countertop or work surface.
- b. In a countertop using receptacle outlet assemblies listed for use in countertops
- c. In a work surface using receptacle outlet assemblies listed for work surfaces or listed for use in countertops
- d. all of the above

46. (G) Basements, Garages, and Accessory Buildings. For one- and two-family dwellings, and multifamily dwellings, at least one receptacle outlet shall be installed in the areas specified in 210.52(G)(1) through (G)(3). These receptacles shall be in addition to receptacles required for specific equipment. Receptacles supplying only a permanently installed premises _____ shall not be considered as meeting these requirements.

- a. backup system
- b. security system
- c. alarm system
- d. safety system

47. 210.70 Lighting Outlets Required. Lighting outlets shall be installed where specified in 210.70(A), (B), and (C). The switch or wall-mounted control device _____ rely exclusively on a battery unless a means is provided for automatically energizing the lighting outlets upon battery failure.

- a. shall
- b. shall not

c. should

d. may

48. 210.70 Lighting Outlets Required. (A) Dwelling Units. (1) Habitable Rooms, Kitchens, Laundry Areas, and Bathrooms. At least one lighting outlet controlled by a listed wall-mounted control device shall be installed in every habitable room, _____.

a. kitchen

b. laundry area

c. bathroom

d. all of the above

49. 210.70 Lighting Outlets Required. The wall-mounted control device shall be located _____ an entrance to the room on a wall.

a. near

b. neighboring

c. adjoining

d. none of the above

50. 210.70 Lighting Outlets Required. Exception No. 1: In other than _____, one or more receptacles controlled by a listed wall-mounted control device shall be permitted in lieu of lighting outlets.

a. kitchens

b. laundry areas

c. bathrooms

d. all of the above

51. 210.70 Lighting Outlets Required. (A) Dwelling Units. (2) Additional Locations. Additional lighting outlets shall be installed in accordance with the following: (1) At least one lighting outlet controlled by a listed wall-mounted control device shall be installed in hallways, stairways, _____ with electric power.

a. attached garages

b. detached garages

c. accessory buildings

d. all of the above

52. 210.70 Lighting Outlets Required. (2) For dwelling units, attached garages, and detached garages with electric power, at least one exterior lighting outlet controlled by a listed wall-mounted control device shall be installed to provide illumination on the exterior side of outdoor _____ with grade-level access.

a. entrances

b. exits

c. both a or b

d. none of the above

53. 210.70 Lighting Outlets Required. A vehicle door in a garage _____ be considered as an outdoor entrance or exit.

- a. shall
- b. shall not
- c. may
- d. none of the above

54. 210.70 Lighting Outlets Required. Exception to (2): For an outdoor, grade bulkhead door with stairway access to a sub-grade-level basement, the required lighting outlet that provides illumination on the stairway steps shall be permitted to be located in the basement interior within _____ of the bottommost stairway riser.

- a. 5 ft vertically
- b. 1.5 m horizontally
- c. 5 ft horizontally
- d. both b & c

55. 210.70 Lighting Outlets Required. Exception to (2): This interior lighting outlet shall be permitted to be controlled by a listed wall-mounted control device or by a unit switch of the _____.

- a. interior luminaire
- b. interior lampholder
- c. both a or b
- d. none of the above

56. 210.70 Lighting Outlets Required. (3) Where lighting outlets are installed for an interior stairway with six or more risers between floor levels, there shall be a listed wall-mounted control device at each _____ that includes a stairway entry to control the lighting outlets.

- a. floor level
- b. landing level
- c. both a & b
- d. none of the above

57. 210.70 Lighting Outlets Required. Exception to (1), (2), and (3): Remote, central, or automatic control of lighting shall be permitted _____.

- a. in hallways
- b. in stairways
- c. at outdoor entrances
- d. all of the above

58. 210.70 Lighting Outlets Required. Dimmer control of lighting outlets installed in accordance with 210.70(A)(2)(3) shall not be permitted unless the listed control devices can provide dimming control to _____ brightness at each control location for the interior stairway illumination.

- a. adequate

- b. minimum
- c. satisfactory
- d. none of the above

59. Article 215 Feeders 215.15 Barriers. Barriers shall be placed such that no energized uninsulated, ungrounded busbar or terminal is exposed to inadvertent contact by persons or maintenance equipment while servicing load terminations in _____.

- a. panelboards
- b. switchboards
- c. switchgear
- d. all of the above

60. Article 215 Feeders 215.15 Barriers. Barriers shall be placed such that no energized uninsulated, ungrounded busbar or terminal is exposed to inadvertent contact by persons or maintenance equipment while servicing load terminations in motor control centers supplied by feeder taps in _____.

- a. 240.21(B)
- b. 240.31(B)
- c. 240.41(B)
- d. 240.51(B)

61. Article 215 Feeders 215.15 Barriers. Barriers shall be placed such that no energized uninsulated, ungrounded busbar or terminal is exposed to inadvertent contact by persons or maintenance equipment while servicing load terminations in transformer secondary conductors in 240.21(C) when the disconnecting device, to which the tap conductors are terminated, is in the _____ position.

- a. closed
- b. open
- c. up right
- d. none of the above

62. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection.

(A) Surge-Protective Device. Where a feeder and all services supplies any of the following, a surge-protective device (SPD) shall be installed:

- a. Dwelling units
- b. Dormitory units
- c. Dwelling accessory building
- d. both a & b

63. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection.

(A) Surge-Protective Device. Where a feeder and all services supplies any of the following, a surge-protective device (SPD) shall be installed:

- a. Guest rooms of hotels and motels

- b. guest suites of hotels and motels
- c. both a & b
- d. none of the above

64. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Where a feeder and all services supplies any of the following, a surge-protective device (SPD) shall be installed:

- a. Areas of nursing homes
- b. Areas of limited-care facilities used exclusively as patient sleeping rooms
- c. both a & b
- d. none of the above

65. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. (B) Location. The SPD shall be installed in or adjacent to distribution and service equipment, connected to the load side of the feeder, that contains branch circuit overcurrent protective device(s) that supply the location specified in _____.

- a. 215.18(A)
- b. 225.42(A)
- c. 230.67(A)
- d. all of the above

66. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. (B) Location. Informational Note: Surge protection is most effective when _____ to the branch circuit.

- a. closest
- b. bordering
- c. farthest
- d. neighboring

67. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. (B) Location. Informational Note: Surges can be generated from multiple sources including, but not limited to _____.

- a. lightning
- b. the electric utility
- c. utilization equipment
- d. all of the above

68. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. (C) Type. The SPD shall be a Type _____ SPD.

- a. 1
- b. 2
- c. 3
- d. both a & b

69. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. (D) Replacement. Where the distribution equipment supplied by the _____ is replaced, all of the requirements of this section shall apply.

- a. circuit
- b. feeder
- c. multi branch circuit
- d. all the above

70. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. (E) Ratings. SPDs shall have a nominal discharge current rating (In) of not less than _____.

- a. 5 kA
- b. 8 kA
- c. 10 kA
- d. None of the above

71. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Type _____ SPDs are for the supply side of service entrance.

- a. 1
- b. 2
- c. 3
- d. 5

72. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Type _____ SPDs are typically surge receptacles or cord connected point-of use devices. Leviton offers a complete assortment in duplex and quad in many styles and colors.

- a. 1
- b. 2
- c. 3
- d. 4

73. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Type _____ SPDs are typically service entrance SPD panels or branch circuit SPD panels that are connected on the load side of the service disconnect overcurrent device (main service panel).

- a. 1
- b. 2
- c. 3
- d. 5

74. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Type ____ SPDs are Discrete component surge suppressors connected by its leads or provided with an enclosure with mounting means and wiring terminations.

- a. 1
- b. 2
- c. 3
- d. 5

75. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Type ____ SPDs are component assemblies consisting of one or more Type 5 components together with a disconnect (integral or external) or a means of complying with the limited current tests in UL 1449.

- a. 1
- b. 2
- c. 3
- d. 4

76. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Type _____ SPDs shunt external surges that originate from utilities or disturbances outside the home or facility.

- a. 1
- b. 2
- c. both a & b
- d. 3

77. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Type ____ SPDs can protect for both internal and external surges when located at the branch.

- a. 1
- b. 2
- c. both a & b
- d. 3

78. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders;

*230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. Type ____ SPDs can shunt surges that originated internally within the home or facility.

- a. 1
- b. 2
- c. both a & b
- d. 3

79. Articles: *215 Feeders; *225 Outside Branch Circuits and Feeders; *230 Services 215.18; 225.42; 230.67 Surge Protection. (A) Surge-Protective Device. So a comprehensive strategy for surge protection typically involves a Type 1 or Type 2 SPD and also a Type ____ SPD at point of use.

- a. 1
- b. 2
- c. both a & b
- d. 3

80. 220.53 Appliance Load — Dwelling Unit(s). Applying a demand factor of ____ percent to the nameplate rating load of four or more appliances rated 1/4 hp or greater, or 500 watts or greater, that are fastened in place, and that are served by the same feeder or service in a one-family, two-family, or multifamily dwelling shall be permitted.

- a. 70
- b. 75
- c. 80
- d. 100

81. 220.53 Appliance Load — Dwelling Unit(s). This demand factor shall not apply to the following:

- a. Household electric cooking equipment that is fastened in place
- b. Clothes dryers
- c. Space heating equipment
- d. all of the above

82. 220.53 Appliance Load — Dwelling Unit(s). This demand factor shall not apply to the following:

- a. Air-conditioning equipment
- b. Electric vehicle supply equipment (EVSE)
- c. Solar panels
- d. both a & b

83. 220.57 Electric Vehicle Supply Equipment (EVSE) Load. The EVSE load shall be calculated at _____, whichever is larger.

- a. either 7200 watts (volt-amperes)
- b. the nameplate rating of the equipment
- c. both a or b

d. none of the above

84. 220.57 Electric Vehicle Supply Equipment (EVSE) Load. Expert Analysis
A revision has been made to clarify that electric vehicle supply equipment (EVSE) shall _____ included in the fixed appliance load when performing calculations for the appliance load in a one-family, two-family, or multifamily dwelling.

a. not be

b. be

c. could possibly

d. none of the above

85. 220.57 Electric Vehicle Supply Equipment (EVSE) Load. To do load calculations for EVSE, a new section has been added that dictates that the load shall be calculated at either 7200 watts (volt-amperes) or the nameplate of the equipment, whichever is larger. The 7200 watt (volt-amperes) minimum requirement is based on a _____.

a. 20 ampere, 120 volt, single-phase circuit

b. 30 ampere, 120 volt, single-phase circuit

c. 30 ampere, 240 volt, single-phase circuit

d. 40 ampere, 240 volt, single-phase circuit

86. Article 220 Branch-Circuit, Feeder, and Service Load Calculations 220.70 Energy Management Systems (EMSs). If an energy management system (EMS) is used to limit the current to a feeder or service in accordance with 750.30, a single value equal to the maximum ampere setpoint of the EMS shall be permitted to be used in load calculations for the _____.

a. feeder

b. service

c. both a or b

d. none of the above

87. Article 220 Branch-Circuit, Feeder, and Service Load Calculations 220.70 Energy Management Systems (EMSs). The setpoint value of the EMS shall be considered a _____ load for the purposes of load calculations.

a. non continuous

b. continuous

c. both a and b

d. none of the above

88. Article 220 Branch-Circuit, Feeder, and Service Load Calculations 220.70 Energy Management Systems (EMSs). A new section has been added to address the load calculations of energy management systems that is used to limit the current to a feeder or service in accordance with 750.30. When performing the load calculations, a single value equal to the _____ ampere

setpoint of the energy management system shall be permitted to be used in load calculations for the feeder or service.

- a. average
- b. minimum
- c. maximum
- d. none of the above

89. Article 225 Outside Branch Circuits and Feeders 225.41 Emergency Disconnects. For one-and two-family dwelling units, an emergency disconnecting means shall be installed. (A) General.

(1) Location. The disconnecting means shall be installed in a readily accessible outdoor location _____ of the dwelling unit.

- a. on
- b. within sight
- c. both a or b
- d. none of the above

90. Article 225 Outside Branch Circuits and Feeders 225.41 Emergency Disconnects. For one-and two-family dwelling units, an emergency disconnecting means shall be installed. (A) General. (2) Rating. The disconnecting means shall have a short-circuit current rating _____ the available fault current.

- a. equal to
- b. greater than
- c. both a or b
- d. none of the above

91. Article 225 Outside Branch Circuits and Feeders 225.41 Emergency Disconnects. For one-and two-family dwelling units, an emergency disconnecting means shall be installed. (A) General. (3) Grouping. If more than one disconnecting means is provided, they _____ be grouped.

- a. maybe should
- b. ought to
- c. shall
- d. none of the above

92. Article 225 Outside Branch Circuits and Feeders 225.41 Emergency Disconnects. For one-and two-family dwelling units, an emergency disconnecting means shall be installed. (B) Identification of Other Isolation Disconnects. Where equipment for isolation of other energy source systems is not located adjacent to the emergency disconnect required by this section, a _____ identifying the location of all equipment for isolation of other energy sources shall be located adjacent to the disconnecting means required by this section.

- a. Plaque
- b. Directory
- c. Manual
- d. Both a or b

93. Article 225 Outside Branch Circuits and Feeders 225.41 Emergency Disconnects. For one-and two-family dwelling units, an emergency disconnecting means shall be installed. (A) General. (B) Identification of Other Isolation Disconnects. Informational Note: See _____ for examples of other energy source system isolation means.

- a. 445.18
- b. 480.7
- c. 705.20
- d. all of the above

94. Article 225 Outside Branch Circuits and Feeders 225.41 Emergency Disconnects. For one-and two-family dwelling units, an emergency disconnecting means shall be installed. (C) Marking. The disconnecting means shall be marked as EMERGENCY DISCONNECT. Markings shall comply with 110.21(B) and all of the following: The marking or labels shall be located on the outside front of the disconnect enclosure with _____.

- a. red background
- b. white text
- c. black text
- d. both a & b

95. Article 225 Outside Branch Circuits and Feeders 225.41 Emergency Disconnects. For one-and two-family dwelling units, an emergency disconnecting means shall be installed. (C) Marking. The disconnecting means shall be marked as EMERGENCY DISCONNECT. Markings shall comply with 110.21(B) and all of the following:(2) The letters shall be least at _____ high.

- a. 13 mm
- b. 1/2 in
- c. both a or b
- d. 3/8 in

96. 230.85(A)(B)(C)(D)(E) Emergency Disconnects – 1 and 2 Family Homes Change Summary, A revision was made to clarify the _____ of the required residential emergency disconnect.

- a. rating
- b. grouping
- c. location
- d. all of the above

97. Article 230 Services

230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (A) General. (1) Location. The disconnecting means shall be installed in a readily accessible outdoor location _____ the dwelling unit.

- a. on
- b. within sight of
- c. both a or b
- d. none of the above

98. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (A) General. (1) Location
Exception: Where the requirements of 225.41 are met, this section shall not apply.

- a. 225.40
- b. 225.41
- c. 225.42
- d. 225.43

99. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (A) General. (2) Rating. The disconnecting means shall have a short-circuit current rating _____ the available fault current.

- a. equal to
- b. greater than
- c. 125% of
- d. both a or b

100. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (A) General. (3) Grouping. If more than _____ disconnecting means is provided, they shall be grouped.

- a. one
- b. two
- c. three
- d. both a or b

101. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (B) Disconnects. Each disconnect shall be one of the following:

- a. Service disconnect
- b. A meter disconnect integral to the meter mounting equipment not marked as suitable only for use as service equipment installed in accordance with 230.82
- c. Sub feeder disconnect on load side
- d. both a or b

102. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (B) Disconnects. (3) Other listed disconnect switch or circuit breaker that is marked suitable for use as service equipment, but not marked as suitable only for use as service equipment, installed on the _____ side of each service disconnect.

- a. load
- b. supply
- c. both a or b
- d. none of the above

103. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (B) Disconnects
Informational Note 1: Conductors between the emergency disconnect and the service disconnect in 230.85(2) and 230.85(3) are _____.

- a. feeder conductors
- b. service conductors
- c. sub feeder conductors
- d. all of the above

104. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (B) Disconnects
Informational Note 2: Equipment marked "Suitable only for use as service equipment" includes the factory marking "Service Disconnect"

- a. feeder disconnect
- b. service disconnect
- c. sub feeder disconnect
- d. all of the above

105. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (C) Replacement. Where service equipment is replaced, all of the requirements of this section ____ apply.

- a. could
- b. may
- c. shall
- d. shall not

106. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (C) Replacement.
Exception: Where only meter sockets, service entrance conductors, or related raceways and fittings are replaced, the requirements of this section _____ apply.

- a. could
- b. may
- c. shall
- d. shall not

107. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (D) Identification of Other Isolation Disconnects. Where equipment for isolation of other energy source systems is not located adjacent to the emergency disconnect required by this section, a _____ identifying the location of all equipment for isolation of other energy sources shall be located adjacent to the disconnecting means required by this section.

- a. plaque
- b. directory
- c. both a or b
- d. none of the above

108. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (D) Identification of Other Isolation Disconnects. Informational Note: See 445.18, 480.7, 705.20, and 706.15 for examples of other energy source system _____ means.

- a. remoteness
- b. separation
- c. isolation
- d. none of the above

109. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (E) Marking.

(1) Marking Text. The disconnecting means shall marked as follows: (1) Service disconnect _____.

- a. emergency disconnect
- b. service disconnect
- c. both a & b
- d. none of the above

110. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (E) Marking. (2) Meter disconnects installed in accordance with 230.82(3) and marked as follows:

- a. emergency disconnect
- b. meter disconnect
- c. not service equipment
- d. all of the above

111. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (E) Marking. (3) Other listed disconnect switches or circuit breakers on the supply side of each service disconnect that are marked suitable for use as service equipment and marked as follows:

- a. emergency disconnect
- b. meter disconnect

- c. not service equipment
- d. both a & c

112. 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be installed. (E) Marking. (2) Marking Location and Size. Markings shall comply with 110.21(B) and both of the following:

- a. The marking or labels shall be located on the outside front of the disconnect enclosure with red background and white text.
- b. The letters shall be at least 13 mm (1/2 in.) high.
- c. both a & b
- d. none of the above

113. 110.21 Marking (A) Equipment Markings.

(2) Reconditioned Equipment. Reconditioned equipment shall be marked with the following:

- a. Name, trademark, or other descriptive marking of the organization that performed the reconditioning
- b. The date of the reconditioning
- c. the term reconditioned or other approved wording or symbol indicating that the equipment has been reconditioned.

The original listing mark shall be removed or made permanently illegible. The equipment nameplate shall not be required to be removed or made permanently illegible, only the part of the nameplate that includes the listing mark if applicable. Approval of the reconditioned equipment shall not be based solely on the equipment's original listing.

- d. all of the above

114. 240.2 Reconditioned Equipment. (A) Reconditioning Not Permitted. The following equipment shall not be reconditioned:

- a. Equipment providing ground-fault protection of equipment
- b. Ground-fault circuit interrupters
- c. both a & b
- d. none of the above

115. 240.2 Reconditioned Equipment. (A) Reconditioning Not Permitted. The following equipment shall not be reconditioned:

- a. Low-voltage fuseholders
- b. Molded-case circuit breakers
- c. Low-voltage renewable fuses
- d. all of the above

116. 240.2 Reconditioned Equipment. (B) Reconditioning Permitted. The following equipment shall be permitted to be reconditioned:

- a. Low-voltage power circuit breakers
- b. Electromechanical protective relays

- c. and current transformers
- d. all of the above

117. 240.2 Reconditioned Equipment. (B) Reconditioning Permitted.

Reconditioned equipment shall be _____ as reconditioned and comply with 110.21(A)(2).

- a. approved
- b. identified
- c. listed
- d. all of the above

118. 404.16 Reconditioned Equipment. (A) Lighting, Dimmer, and Electronic Control Switches. Reconditioned lighting, dimmer, and electronic control switches _____ be permitted.

- a. shall
- b. may
- c. could possibly
- d. shall not

119. 404.16 Reconditioned Equipment. (B) Snap Switches. Reconditioned snap switches of any type _____ be permitted.

- a. shall
- b. may
- c. could possibly
- d. shall not

120. 404.16 Reconditioned Equipment. (C) Knife Switches, Switches with Butt Contacts, and Bolted Pressure Contact Switches. Reconditioned knife switches, switches with butt contacts, and bolted pressure contact switches _____ be permitted.

- a. shall
- b. may
- c. could possibly
- d. shall not

121. 404.16 (C) Reconditioned Equipment. If equipment has been damaged by fire, products of combustion, corrosive influences, or water, it shall be specifically evaluated by _____ prior to being returned to service.

- a. its manufacturer
- b. a qualified testing laboratory
- c. local inspector
- d. both a or b

122. 404.16 (D) Reconditioned Equipment. Molded-Case Switches.

Reconditioned molded-case switches _____ be permitted.

- a. shall
- b. may

- c. could possibly
- d. shall not

123. 406.2 Reconditioned Equipment. Reconditioned receptacles, attachment plugs, cord connectors, and flanged surface devices _____ be permitted.

- a. shall
- b. may
- c. could possibly
- d. shall not

124. Article 240 Overcurrent Protection 240.24 Location in or on Premises.

(E) Not Located in Bathrooms. Overcurrent protective devices, other than supplementary overcurrent protection shall not be located in _____ with showering facilities.

- a. bathrooms
- b. showering facilities
- c. locker rooms
- d. all of the above

125. 300.14 Length of Free Conductors at Outlets, Junctions, and Switch Points. The 150 mm (6 in.) free conductor shall be permitted to be _____.

- a. spliced
- b. unspliced
- c. both a or b
- d. none of the above

126. Article 312 – Cabinets, Cutout Boxes, and Meter Socket Enclosures

312.10 Screws or Other Fasteners. Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or as specified by the manufacturer or shall comply with the following as applicable:

- a. Screws shall be machine type with blunt ends.
- b. Other fasteners shall have blunt ends.
- c. Screws or other fasteners shall extend into the enclosure no more than 6 mm (1/4 in.) unless the end is protected with an approved means.
- d. all of the above

127. Article 312 – Cabinets, Cutout Boxes, and Meter Socket Enclosures

312.10 Screws or Other Fasteners. Exception to (3): Screws or other fasteners shall be permitted to extend into the enclosure not more than _____ if located within 10 mm (3/8 in.) of an enclosure wall.

- a. 11 mm
- b. 7/16 in
- c. 3/8 in
- d. both a & b

128. Article 314 – Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Handhole Enclosures 314.5 Screws or Other Fasteners. Screws or

other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as applicable:

- a. Screws shall be machine type with blunt ends
- b. Other fasteners shall have blunt ends
- c. Screws or other fasteners penetrating the wall of a conduit body shall be made flush with the conduit body interior
- d. all of the above

129. Article 314 – Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Handhole Enclosures 314.5 Screws or Other Fasteners. Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as applicable:

- a. Screws attaching a cover shall extend no more than 10 mm
- b. Screws attaching a cover shall extend no more than 5/8 in
- c. both a & b
- d. none of the above

130. Article 314 – Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Handhole Enclosures 314.5 Screws or Other Fasteners. Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as applicable: (4) Screws or other fasteners, other than in (3), penetrating a cover shall extend no more than _____.

- a. 8 mm
- b. 3/16 in
- c. both a & d
- d. 5/16

131. Article 314 – Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Handhole Enclosures 314.5 Screws or Other Fasteners. Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as applicable: (5) Screws or other fasteners penetrating a wall of a box exceeding 1650 CM³ (100 in.³) shall extend no more than _____.

- a. 6 mm
- b. 1/4 in
- c. 8 mm
- d. both a & b

132. Article 314 – Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Handhole Enclosures 314.5 Screws or Other Fasteners. Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as

applicable: (5) or more than 11 mm (7/16 in.) if located within _____ of an adjacent box wall.

- a. 6 mm
- b. 3/8 in
- c. 10 mm
- d. both b & c

133. Article 314 – Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Handhole Enclosures 314.5 Screws or Other Fasteners. Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as applicable: (6) Screws or other fasteners penetrating the wall of a box not exceeding 1650 CM3 (100 in.3) and not covered in 314.23(B)(1) shall be made flush with the box _____.

- a. exterior
- b. side wall
- c. interior
- d. all of the above

134. Article 314 – Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Handhole Enclosures 314.5 Screws or Other Fasteners. Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as applicable: (7) Screws or other fasteners penetrating the wall of a conduit body shall be made flush with the conduit body _____.

- a. exterior
- b. side wall
- c. interior
- d. all of the above

135. Article 314 – Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Handhole Enclosures 314.5 Screws or Other Fasteners. Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as applicable: Exception to (3) through (6): A screw shall be permitted to be longer if the end of the screw is protected with an _____ means.

- a. adequate
- b. approved
- c. appropriate
- d. all of the above

136. Article 314 Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings; and Handhole Enclosures 314.24 Dimensions of Boxes.

(B) Depth of Outlet and Device Boxes with Enclosed Devices or Utilization Equipment. (4) Conductors 12 or 10 AWG. Boxes that enclose devices or

utilization equipment supplied by 12 or 10 AWG conductors shall have an internal depth that is not less than 30.2 mm (13/16 in.). Where the equipment projects rearward from the mounting plane of the box by more than 25 mm (1 in.), the box shall have a depth not less than that of the equipment plus 6 mm (1/4 in.). Where wiring enters the center portion of the rear of a box opposite to the equipment, the minimum clearance shall be _____ to 13 mm (1/2 in.).

- a. improved
- b. augmented
- c. increased
- d. none of the above

137. Article 314 Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings; and Handhole Enclosures 314.24 Dimensions of Boxes. (C)

Clearances for Side-Wiring Entrances. Where devices or equipment are mounted in boxes having side-wiring entries, the conductors entering from the side shall be protected as covered in (1) or (2), as follows: (The term *side* applies to any wall of a box other than the one opposite to the opening).

- a. The rearward projection of the device or equipment shall not extend beyond the centerline of the wiring knockout or other entry.
- b. The clearance from the box wall to the installed device or equipment shall be not less than 13 mm.
- c. The clearance from the box wall to the installed device or equipment shall be not less than 1/2 in.
- d. all of the above

138. Article 334 Nonmetallic-Sheathed Cable: Types NM and NMC

334.15 Exposed Work. (B) Protection from Physical Damage. Cable shall be protected from physical damage where necessary by rigid metal conduit, intermediate metal conduit, electrical metallic tubing, Schedule 80 PVC conduit, RTRC marked with the suffix -XW, or other approved means. Where passing through a floor, the cable shall be enclosed in rigid metal conduit, intermediate metal conduit, electrical metallic tubing, Schedule 80 PVC conduit, RTRC marked with the suffix -XW, or other approved means extending at least 150 mm (6 in.) above the floor. _____ shall be provided with a bushing or adapter that provides protection from abrasion at the point the cable enters and exits the raceway.

- a. Conduit
- b. Tubing
- c. Pipe
- d. only a or b

139. 334.19 Cable Entries. The sheath on nonmetallic-sheathed cable shall extend not less than 6 mm (1/4 in.) beyond any _____.

- a. cable clamp

- b. cable entry
- c. cable exiting
- d. both a or b

140. 404.14 Rating and Use of Switches (D) Snap Switch Terminations. Snap switch terminations shall be in accordance with the following:

(1) Terminals of _____ snap switches not marked CO/ALR shall be used with copper and copper-clad aluminum conductors only.

- a. 15-ampere
- b. 20-ampere
- c. 30-ampere
- d. both a & b

141. 404.14 Rating and Use of Switches (D) Snap Switch Terminations. Snap switch terminations shall be in accordance with the following:

(2) Terminals marked CO/ALR shall be permitted to be used with _____ conductors.

- a. copper
- b. aluminum
- c. copper-clad aluminum
- d. all of the above

142. 404.14 Rating and Use of Switches (D) Snap Switch Terminations. Snap switch terminations shall be in accordance with the following:

(3) Snap switches connected using screwless terminals of the conductor push-in type construction (also known as conductor push-in terminals) shall be installed on not greater than ____-ampere branch circuits.

- a. 10
- b. 15
- c. 20
- d. 30

143. 404.14 Rating and Use of Switches (D) Snap Switch Terminations. Snap switch terminations shall be in accordance with the following:

Snap switches connected using screwless terminals of the conductor push-in type construction (also known as conductor push-in terminals) shall be connected with ____ AWG solid copper wire only unless listed and marked for other types of conductors.

- a. 16
- b. 14
- c. 12
- d. 10

144. 404.14 Rating and Use of Switches (D) Snap Switch Terminations. Snap switch terminations shall be in accordance with the following:

Snap switches connected using screwless terminals of the conductor push-in type construction (also known as conductor push-in terminals) could be connected with other wiring methods only if _____ for other types of conductors.

- a. listed
- b. approved
- c. marked
- d. both a & c

145. 406.3 Receptacle Rating and Type. (D) Receptacle Terminations.

Receptacle terminations shall be in accordance with the following:

(1) Terminals of 15-ampere and 20-ampere receptacles not marked CO/ALR shall be used with _____ conductors only.

- a. copper
- b. copper-clad aluminum
- c. aluminum
- d. both a & b

146. 406.3 Receptacle Rating and Type. (D) Receptacle Terminations.

Receptacle terminations shall be in accordance with the following: (2) Terminals marked CO/ALR shall be permitted to be used with _____ conductors.

- a. aluminum
- b. copper
- c. copper-clad aluminum
- d. all of the above

147. 406.3 Receptacle Rating and Type. (D) Receptacle Terminations.

Receptacle terminations shall be in accordance with the following: (3)

Receptacles installed using screwless terminals of the conductor push-in type construction (also known as *push-in-terminals*) shall be installed on not greater than _____-ampere branch circuits.

- a. 15
- b. 20
- c. 30
- d. 25

148. 406.3 Receptacle Rating and Type. (D) Receptacle Terminations.

Receptacle terminations shall be in accordance with the following: (3)

Receptacles installed using screwless terminals of the conductor push-in type construction (also known as *push-in-terminals*) shall be connected with _____ AWG solid copper wire only unless listed and marked for other types of conductors.

- a. 10
- b. 12
- c. 14
- d. all of the above

149. Informational Note: See UL 498, *Attachment Plugs and Receptacles*, for information regarding screwless terminals of various type constructions employed on receptacles. Screwless terminals of the separable-terminal assembly, spring-action clamp, and insulation-displacement type constructions are not classified in UL ____ as screwless terminals of the conductor push-in type construction (also known as push-in terminals).

- a. 488
- b. 498
- c. 489
- d. none of the above

150. 406.4 General Installation Requirements. (G) Protection of Floor Receptacles. Protection for floor receptacles shall be in accordance with the following:

- a. Physical protection of floor receptacles shall allow floor-cleaning equipment to be operated without damage to receptacles.
- b. All 125-volt, single-phase, 15- and 20-ampere floor receptacles installed in food courts and waiting spaces of passenger transportation facilities where food or drinks are allowed shall be GFCI protected.
- c. both a & b
- d. none of the above

151. 406.6 Receptacle Faceplates (Cover Plates). (D) Receptacle Faceplate (Cover Plates) with Integral Night Light and/or USB Charger. A flush device cover plate that additionally provides a night light and/or Class 2 output connector(s) shall be listed and constructed such that the night light and/or Class 2 circuitry is integral with the flush device cover plate.

Listed receptacle faceplates with integral night light, USB charger, or both, that rely solely on spring-tensioned contacts shall be connected to only _____ receptacle terminal screws.

- a. brass
- b. copper alloy
- c. only a
- d. both a or b

152. 406.6 Receptacle Faceplates (Cover Plates). (D) Receptacle Faceplate (Cover Plates) with Integral Night Light and/or USB Charger. A flush device cover plate that additionally provides a night light and/or Class 2 output connector(s) shall be listed and constructed such that the night light and/or Class 2 circuitry is integral with the flush device cover plate.

Listed receptacle faceplates with integral night light, USB charger, or both, that rely solely on spring-tensioned contacts shall be rated ____ watt or less.

- a. 1
- b. 2

c. 3

d. 4

153. 406.6 Receptacle Faceplates (Cover Plates). Exception: Effective January 1, 2026, spring-tensioned contact connections to steel receptacle terminal screws shall be permitted if the receptacle faceplate is specifically _____ for connection to steel receptacle terminal screws.

a. listed

b. identified

c. both a & b

d. both a or b

154. 406.9 Receptacles in Damp or Wet Locations. (A) Damp Locations. Hinged covers of outlet box hoods shall be able to open at least _____ degrees, or fully open if the cover is not designed to open 90 degrees from the closed to open position, after installation.

a. 75

b. 90

c. 125

d. 180

155. 406.9 Receptacles in Damp or Wet Locations. (A) Damp Locations. Informational Note: See ANSI/NEMA_____, Wiring Devices — Dimensional Specifications, for the types of receptacles covered by this requirement.

a. WD 5–2016

b. WD 6–2016

c. WD 7–2016

d. WD 8–2016

156. 406.9 Receptacles in Damp or Wet Locations. (B) Wet Locations. Other listed products, enclosures, or assemblies providing weatherproof protection that do not utilize an outlet box hood need not be _____ extra duty.

a. listed

b. identified

c. both a & b

d. both a or b

157. 406.9 Receptacles in Damp or Wet Locations. (B) Wet Locations. Hinged covers of outlet box hoods shall be able to open at least 90 degrees, or fully open if the cover is not designed to open _____ degrees from the closed to open position, after installation.

a. 75

b. 90

c. 125

d. 180

158. 406.9 Receptacles in Damp or Wet Locations. (B) Wet Locations. Informational Note No. 1: See ANSI/UL 514D–2016, Cover Plates for Flush-Mounted Wiring Devices, for extra-duty outlet box hoods. “_____” identification and requirements are not applicable to listed receptacles, faceplates, outlet boxes, enclosures, or assemblies that are identified as either being suitable for wet locations or rated as one of the outdoor enclosure–type numbers of Table 110.28 that does not utilize an outlet box hood.

- a. Heavy duty
- b. Extra duty
- c. Medium duty
- d. Light duty

159. 406.9 Receptacles in Damp or Wet Locations. (B) Wet Locations. Informational Note No. 2: See ANSI/NEMA WD 6–2016, Wiring Devices — Dimensional Specifications, for receptacle configurations. The configuration of weather-resistant receptacles covered by this requirement are identified as____.

- a. 5-15, 5-20
- b. 6-15, 6-20
- c. both a & b
- d. both a or b

160. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Receptacles shall not be installed inside of the tub or shower or within a zone measured _____ horizontally from any outside edge of the bathtub or shower stall.

- a. 900 mm
- b. 3 ft
- c. both a & b
- d. none of the above

161. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Receptacles shall not be installed inside of the tub or shower including the space outside the bathtub or shower stall space _____ the zone.

- a. above
- b. out of
- c. next to
- d. below

162. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. The identified zone is all-encompassing and shall include the space directly over the bathtub or shower stall and the space below this zone, but not the space separated by a _____.

- a. floor
- b. wall
- c. ceiling

d. all of the above

163. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. The identified zone is all-encompassing and shall include the space directly over the bathtub or shower stall and the space below this zone, but not the space separated by a _____.

- a. room door
- b. window
- c. fixed barrier
- d. all of the above

164. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Exception No. 1: Receptacles installed in accordance with _____ shall be permitted.

- a. 680.72
- b. 680.73
- c. 681.73
- d. 680.83

165. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Exception No. 2: In bathrooms with less than the required zone, the receptacle(s) required by 210.52(D) shall be permitted to be installed opposite the bathtub rim or shower stall threshold on the farthest wall within the room.

- a. 210.52(A)
- b. 210.52(B)
- c. 210.52(C)
- d. 210.52(D)

166. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Exception No. 3: Weight supporting ceiling receptacles (WSCR) shall be permitted to be installed for _____ luminaires that employ a weight supporting attachment fitting (WSAF) in damp locations complying with 410.10(D).

- a. identified
- b. listed
- c. both a & b
- d. both a or b

167. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Exception No. 4: In a dwelling unit, a single receptacle shall be permitted for an _____ such as an electronic bidet seat. The receptacle shall be readily accessible and not located in the space between the toilet and the bathtub or shower.

- a. electronic toilet
- b. personal hygiene device
- c. neither a & b
- d. both a or b

168. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Exception No. 4: The receptacle shall be readily accessible and not located in the space between the toilet and the_____.

- a. bathtub
- b. shower
- c. both a & b
- d. both a or b

169. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Informational Note No. 2: See _____ for bathroom branch circuits.

- a. 210.11(A)
- b. 210.11(B)
- c. 210.11(C)
- d. 210.11(D)

170. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Informational Note No. 1: See 210.8(A)(1) for _____ requirements in a bathroom.

- a. GFCI
- b. AFCI
- c. both a & b
- d. both a or b

171. 406.9 Receptacles in Damp or Wet Locations. (C) Bathtub and Shower Space. Informational Note No. 3: See 210.21(B)(1) for single receptacle on _____ branch.

- a. a multi
- b. an individual
- c. both a & b
- d. both a or b

172. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles:

- a. dwelling units
- b. mobile homes
- c. manufactured homes
- d. all of the above

173. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles:

- a. boathouses
- b. attached garages
- c. detached garages
- d. all of the above

174. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles: (5) Within clinics, medical and dental offices, and outpatient facilities, the following spaces:

- a. Business offices accessible to the general public
- b. Lobbies and waiting spaces
- c. Spaces of nursing homes and limited care facilities covered in 517.10(B)(2)
- d. all of the above

175. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles: (6) Places of _____.

- a. awaiting transportation & gymnasiums
- b. skating rinks & fitness centers
- c. auditoriums
- d. all of the above

176. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles: (8) _____.

- a. Residential care/assisted living facilities
- b. social and substance abuse rehabilitation facilities
- c. group homes
- d. all of the above

177. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles: (9) _____.

- a. Foster care facilities
- b. nursing homes
- c. psychiatric hospitals
- d. all of the above

178. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles: (10) Areas of agricultural buildings accessible to the _____.

- a. general public
- b. any common areas
- c. both a & b
- d. both a or b

179. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles: Informational Note No. 2: See _____ for more

information on occupancy classifications for the types of facilities covered by this requirement.

- a. NFPA 5000-2021
- b. Building Construction and Safety Code
- c. International Building Code
- d. all of the above

180. 406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the following locations shall be listed tamper-resistant receptacles: Informational Note No. 3: Areas of agricultural building are frequently converted to hospitality areas. These areas can include _____ where receptacles are installed.

- a. petting zoos
- c. stables
- c. buildings used for recreation or educational purposes
- d. all of the above

181. 406.12 Tamper-Resistant Receptacles. Exception to (1) through (10): (1) Receptacles in the following locations shall not be required to be tamper resistant: (1) Receptacles located more than _____ above the floor.

- a. 5 1/2 ft
- b. 1.7 m
- c. 6'
- d. both a or b

182. 406.12 Tamper-Resistant Receptacles. Exception to (1) through (10): (2) Receptacles that are part of _____.

- a. a luminaire
- b. an appliance
- c. an application
- d. both a or b

183. 406.12 Tamper-Resistant Receptacles. Exception to (1) through (10): (3) Where the receptacle outlet is installed within the space occupied by or designated for each appliance that, in normal use, is not easily moved from one place to another and is cord-and-plug-connected in accordance with 400.10(A)(6), (A)(7), or (A)(8) the following are permitted:

- a. A single receptacle that is not readily accessible and supplies one appliance
- b. A duplex receptacle that is not readily accessible and supplies two appliances
- c. both a or b
- d. neither a or b

184. 406.12 Tamper-Resistant Receptacles. Exception to (1) through (10): (4) _____ receptacles used for replacements as permitted in

406.4(D)(2)(a).

- a. grounding
- b. grounded
- c. Nongrounding
- d. both a or b

185. Article 409 Industrial Control Panels 409.70 Surge Protection. Safety circuits for personnel protection that are subject to damage from surge events shall have surge protection installed _____ to the control panel.

- a. within
- b. immediately adjacent
- c. both a or b
- d. both a and b

186. 410.71 Disconnecting Means for Fluorescent or LED. Luminaires that Utilize Double-Ended Lamps. (1) General. In indoor locations other than dwellings and associated accessory structures, fluorescent or LED luminaires that utilize double-ended lamps and contain ballast(s) or LED driver(s) that can be serviced in place shall have a disconnecting means _____ to each luminaire.

- a. internal
- b. external
- c. both a or b
- d. both a and b

187. 410.71 Disconnecting Means for Fluorescent or LED. Luminaires that Utilize Double-Ended Lamps. (1) General. For existing installed luminaires without disconnecting means, at the _____ is added or replaced a disconnecting means shall be installed.

- a. time a ballast
- b. LED driver or LED driver
- c. both a or b
- d. neither a and b

188. 410.71 Disconnecting Means for Fluorescent or LED. Luminaires that Utilize Double-Ended Lamps. (1) General. The _____ side terminals of the disconnecting means shall be guarded.

- a. line
- b. load
- c. both a and b
- d. neither a and b

189. 410.71 Disconnecting Means for Fluorescent or LED. Luminaires that Utilize Double-Ended Lamps. (1) General. Exception No. 1: A disconnecting means shall not be required for luminaires installed in _____ (classified) location(s).

- a. risky
- b. hazardous
- c. harmful
- d. unsafe

190. 410.71 Disconnecting Means for Fluorescent or LED. Luminaires that Utilize Double-Ended Lamps. (1) General. Exception No. 2: A disconnecting means shall not be required for luminaires that provide _____ illumination required in 700.16.

- a. backup
- b. alternative
- c. emergency
- d. reserve

191. 410.71 Disconnecting Means for Fluorescent or LED, Luminaires that Utilize Double-Ended Lamps. (1) General. Exception No. 3: For cord-and-plug-connected luminaires, an accessible separable _____ shall be permitted to serve as the disconnecting means.

- a. connector
- b. an accessible plug and receptacle
- c. both a or b
- d. both a and b

192. 410.71 Disconnecting Means for Fluorescent or LED. Luminaires that Utilize Double-Ended Lamps. (1) General. Exception No. 4: Disconnecting means shall not be required for every luminaire in a building area if all of the following conditions apply:

- a. More than one luminaire is installed in the building area and (2) The luminaires are not connected to a multiwire branch circuit
- b. The design of the installation includes disconnecting means
- c. The building area will not be left in total darkness should only one disconnect be opened
- d. all of the above

193. 410.71 Disconnecting Means for Fluorescent or LED Luminaires that Utilize Double-Ended Lamps. (2) Multiwire Branch Circuits. When connected to multiwire branch circuits, the disconnecting means shall simultaneously break all the supply conductors to the ballast, _____ the grounded conductor.

- a. excluding
- b. including
- c. counting
- d. none of the above

194. 410.71 Disconnecting Means for Fluorescent or LED Luminaires that Utilize Double-Ended Lamps. (3) Location. The disconnecting means shall be located so as to be accessible to qualified persons before _____ the ballast.

Where the disconnecting means is external to the luminaire, it shall be a single device, and it shall be attached to the luminaire or the luminaire shall be located within sight of the disconnecting means.

- a. servicing
- b. maintaining
- c. both a or b
- d. both a and b

195. Article 411 Low-Voltage Lighting 411.3 Voltage Limitations. The operating voltage of low-voltage lighting systems and their associated components shall not exceed _____.

- a. 30 volts ac
- b. 60 volts dc
- c. both a or b
- d. both a and b

196. Article 411 Low-Voltage Lighting 411.3 Voltage Limitations. If wet contact is likely to occur, the operating voltage of low-voltage lighting systems and their associated components shall not exceed _____.

- a. 15 volts ac
- b. 30 volts dc
- c. both a or b
- d. both a and b

197. Article 411 Low-Voltage Lighting 411.3 Voltage Limitations. Informational Note: See 680.1 for _____.

- a. swimming pools
- b. fountains
- c. similar installations
- d. all of the above

198. Article 422 Appliances 422.18 Ceiling-Suspended (Paddle) Fans.

(B) Location. No metal parts of ceiling-suspended (paddle) fans in bathrooms and shower spaces shall be located within a zone measured 900 mm (3 ft) horizontally and 2.5 m (8 ft) _____ from the top of the bathtub rim or shower stall threshold.

- a. vertically
- b. horizontally
- c. both a or b
- d. both a and b

199. Article 422 Appliances 422.18 Ceiling-Suspended (Paddle) Fans. This zone is all-encompassing and shall include the space directly over the _____ stall.

- a. tub
- b. shower
- c. sink
- d. both a or b

200. Article 424 Fixed Electric Space-Heating Equipment 424.48 Installation of Cables in Walls. Unless prohibited by 424.38(B), heating cables and cable sets shall be permitted to be installed in, on, or behind walls provided all of the following are met:

- a. Heating cables and cable sets shall be identified as suitable for installation in, on, or behind walls.
- b. Heating cables and cable sets shall be GFCI protected.
- c. Grounding means, such as copper braid, metal sheath, or other approved means, shall be provided.
- d. all of the above

201. Article 424 Fixed Electric Space-Heating Equipment 424.48 Installation of Cables in Walls. Unless prohibited by 424.38(B), heating cables and cable sets shall be permitted to be installed in, on, or behind walls provided all of the following are met:

- a. Heating cables and cable sets shall be AFCI protected.
- b. Heating cables shall be permitted to be installed no more than 1.2 m (4 ft) above the floor.
- c. Cable sets shall be permitted to be installed no more than 1.2 m (4 ft) above the floor.
- d. all of the above

202. 430.6 Conductor Ampacity and Motor Rating Determination. (A) General Motor Applications. (1) Table Values. Other than for motors built for low speeds (less than 1200 RPM) or high torques, and for multispeed motors, the values given in Table 430.247, Table 430.248, Table 430.249, and Table 430.250 shall be used instead of the actual current rating marked on the motor nameplate to determine the following:

- a. Ampacity of switched
- b. Current ratings of conductors
- c. Voltage ratings of branch-circuit short-circuit and ground-fault protection.
- d. none of the above

203. 430.6 Conductor Ampacity and Motor Rating Determination. (A) General Motor Applications. (1) Table Values. Where a motor is marked in amperes, but not horsepower, the horsepower rating shall be assumed to be that

corresponding to the value given in Table 430.247, Table 430.248, Table 430.249, and Table 430.250, interpolated ____.

- a. is not allowed
- b. is necessary
- c. is not necessary
- d. both a or c

204. 430.6 Conductor Ampacity and Motor Rating Determination. (A) General Motor Applications. (1) Table Values. Exception No. 2: For equipment that employs a shaded-pole or permanent-split capacitor-type fan or blower motor that is marked with the motor type, and the marking on the equipment nameplate is not less than the current marked on the fan or blower motor nameplate, the full-load current marked on the nameplate of the appliance shall be used to determine the ampacity of branch-circuit conductors, in addition to the current ratings of the following:

- a. Dividing means
- b. Motor regulators
- c. Short-circuit and ground-fault protective devices
- d. Multiple overload defending devices

205. 430.6 Conductor Ampacity and Motor Rating Determination. (A) General Motor Applications (2) Nameplate Values. The motor nameplate current ratings shall be used to determine the values for the following: (1) Separate motor overload protection (2) For motors built for low speeds (less than 1200 RPM), high torques, canned pumps, or multispeed motors, the following:

- a. Ampacity of conductors
- b. Current ratings of switches
- c. Current ratings of branch-circuit short-circuit and ground-fault protection
- d. all of the above

206. 430.6 Conductor Ampacity and Motor Rating Determination. (A) General Motor Applications (2) Nameplate Values. (3) Large motors exceeding the values in Part XIV shall use the _____ current rating for conductor sizing.

- a. plaque
- b. logo
- c. nameplate
- d. panel

207. Article 440 – Air-Conditioning and Refrigeration Equipment 440.11 General. Disconnecting means shall be capable of disconnecting air-conditioning and refrigerating equipment, including motor-compressors and controllers, from the circuit conductors. If the disconnecting means is readily accessible to unqualified persons, any enclosure door or hinged cover of a

disconnecting means enclosure that exposes energized parts when open shall require _____.

- a. a tool to open
- b. to be capable of being locked
- c. both a or b
- d. both a and b

208. Article 445 – Generators 445.18 Disconnecting Means. (A) Disconnecting Means. Generators other than cord-and-plug-connected portable generators shall have one or more disconnecting means. Each disconnecting means shall simultaneously open all associated ungrounded conductors. Each disconnecting means shall be lockable open in accordance with 110.25.

The disconnecting means shall be permitted to be located within the generator behind a _____.

- a. a hinged cover
- b. a door
- c. an enclosure panel
- d. all of the above

209. Article 445 – Generators 445.18 Disconnecting Means. (A) Disconnecting Means. Where the generator disconnecting means is located within the generator, a field applied _____ meeting the requirements of 110.21(B) shall be provided indicating the location of the generator disconnecting means.

- a. tag
- b. label
- c. marker
- d. all of the above

210. Article 445 – Generators 445.18 Disconnecting Means. (B) Generators Installed in Parallel. Where a generator is installed _____ with other generators, the provisions of 445.18(A) shall be capable of isolating the generator output terminals from the paralleling system bus.

- a. corresponding
- b. in series
- c. in parallel
- d. both b and c

211. Article 445 – Generators 445.18 Disconnecting Means. (B) Generators Installed in Parallel. The disconnecting means shall _____ required to be located at the generator.

- a. be
- b. not be
- c. both a or b
- d. none of the above

212. Article 445 – Generators 445.19 Emergency Shutdown of Prime Mover.

(B) Remote Emergency Shutdown. For other than one- and two-family dwelling units, generators with greater than ____ kW rating shall be provided with a remote emergency stop switch to shut down the prime mover.

- a. 8
- b. 10
- c. 12
- d. 15

213. Article 445 – Generators 445.19 Emergency Shutdown of Prime Mover.

(B) Remote Emergency Shutdown. The remote emergency stop switch shall be located outside the _____ at a readily accessible location and shall also meet the requirements of 445.19(A)(1) and (A)(2).

- a. equipment room
- b. generator enclosure
- c. both a or b
- d. both a and b

214. Article 445 – Generators 445.19 Emergency Shutdown of Prime Mover.

(B) Remote Emergency Shutdown. The remote emergency stop switch shall be permitted to be mounted on the _____ of the generator enclosure.

- a. exterior
- b. interior
- c. both a or b
- d. both a and b

215. Article 445 – Generators 445.19 Emergency Shutdown of Prime Mover.

(B) Remote Emergency Shutdown. The remote emergency stop switch shall be labeled Generator Emergency Shutdown, and the label shall meet the requirements of _____.

- a. 110.21(A)
- b. 110.21(B)
- c. 110.21(C)
- d. 110.21(D)

216. Article 445 – Generators 445.19 Emergency Shutdown of Prime Mover. (C)

Emergency Shutdown in One- and Two-Family Dwelling Units. For other than cord-and-plug-connected portable generators, an emergency shutdown device shall be located _____ the dwelling unit at a readily accessible location and shall also meet the requirements of 445.19(A) (1) and (A)(2).

- a. inside
- b. on
- c. outside
- d. all of the above

217. Article 445 – Generators 445.19 Emergency Shutdown of Prime Mover. (C)

Emergency Shutdown in One- and Two-Family Dwelling Units. An emergency

shutdown device mounted on the _____ of the generator enclosure shall be permitted to satisfy the requirements of this section.

- a. interior
- b. exterior
- c. both a or b
- d. both a and b

218. Article 445 – Generators 445.19 Emergency Shutdown of Prime Mover. (C) Emergency Shutdown in One- and Two-Family Dwelling Units. The shutdown device shall be _____ as the Generator Emergency Shutdown, and the label shall meet the requirements of 110.21(B).

- a. tagged
- b. labeled
- c. marked
- d. all of the above

219. Article 551 Recreational Vehicles and Recreational Vehicle Parks 551.71 Type Receptacles Provided. (B) 30-Ampere. A minimum of 70 percent of all recreational vehicle sites with electrical supply shall each be equipped with a 30-ampere, 125-volt _____ receptacle conforming to 551.46(C)(1).

- a. weather-resistant
- b. water-proof
- c. sunlight-resistant
- d. all of the above

220. Article 551 Recreational Vehicles and Recreational Vehicle Parks 551.71 Type Receptacles Provided. (C) 50-Ampere. A minimum of 20 percent of existing and 40 percent of all new recreational vehicle sites with electrical supply, shall each be equipped with a 50-ampere, 125/250-volt _____ receptacle conforming to the configuration as identified in Figure 551.46(C)(1).

- a. weather-resistant
- b. water-proof
- c. sunlight-resistant
- d. all of the above

221. Article 551 Recreational Vehicles and Recreational Vehicle Parks 551.71 Type Receptacles Provided. (F) GFCI Protection (2) Receptacles Installed in Recreational Vehicle Site Equipment. Ground-fault circuit-interrupter protection shall only be required for 125-volt, single-phase, ____-ampere receptacles.

- a. 15
- b. 20
- c. 30
- d. both a & b

222. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.4 Location of Service Equipment. The

service equipment for a floating building, dock, or marina shall be located on land no closer than ____ horizontally from and adjacent to the structure served

- a. 1.5 m
- b. 5 ft
- c. both a or b
- d. none of the above

223. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.4 Location of Service Equipment. The service equipment for a floating building, dock, or marina shall not be ____ the structure itself or any other floating structure.

- a. on
- b. in
- c. both a or b
- d. none of the above

224. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.4 Location of Service Equipment. Service equipment shall be elevated a minimum of 300 mm (12 in.) above the electrical _____ plane.

- a. overflow
- b. flood
- c. datum
- d. all of the above

225. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.14 Equipotential Planes and Bonding of Equipotential Planes. An equipotential plane shall be installed where required in this section to _____ step and touch voltages at electrical equipment.

- a. lessen
- b. moderate
- c. mitigate
- d. ease

226. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.14 Equipotential Planes and Bonding of Equipotential Planes. The parts specified in this section shall be bonded _____.

- a. together
- b. to the electrical grounding system
- c. both a or b
- d. both a and b

227. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.14 Equipotential Planes and Bonding of Equipotential Planes. The bonding conductor shall be solid copper conductors; insulated, covered, or bare; not smaller than ____ AWG.

- a. 14
- b. 12
- c. 10
- d. 8

228. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.14 Equipotential Planes and Bonding of Equipotential Planes. (A) Areas Requiring Equipotential Planes. Equipotential planes shall be installed adjacent to all outdoor service equipment or disconnecting means that control equipment in or on water where the following conditions exist:

- a. Where the system voltage exceeds 250 volts to ground
- b. Where the equipment is located within 3 m (10 ft) of the body of water
- c. both a or b
- d. none of the above

229. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.14 Equipotential Planes and Bonding of Equipotential Planes. (A) Areas Requiring Equipotential Planes. The equipotential plane shall include all metallic enclosures and controls that are _____.

- a. likely to become energized
- b. accessible to personnel
- c. both a & b
- d. none of the above

230. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.14 Equipotential Planes and Bonding of Equipotential Planes. (A) Areas Requiring Equipotential Planes. The equipotential plane shall encompass the area around the equipment and shall extend from the area directly below the equipment out not less than _____ in all directions from which a person would be able to stand and come in contact with the equipment.

- a. 900 mm
- b. 36 in.
- c. both a or b
- d. none of the above

231. Article 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.14 Equipotential Planes and Bonding of Equipotential Planes. (B) Areas Not Requiring Equipotential Planes. Equipotential planes shall not be required for the controlled utilization equipment on the _____ supplied by the service equipment or disconnecting means.

- a. docking facility
- b. floating building

- c. both a or b
- d. none of the above

232. Article 555 Marinas Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.15 Replacement of Equipment. When modifications or replacements of electrical _____ are necessary on a docking facility, they shall be required to comply with the requirements of this Code and the installation shall require an inspection of the circuit.

- a. enclosures
- b. devices
- c. wiring methods
- d. all of the above

233. Article 555 Marinas Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.15 Replacement of Equipment. Existing equipment that has been damaged shall be _____ by a qualified person to the minimum requirements of the edition of this Code to which it was originally installed.

- a. identified
- b. documented
- c. repaired
- d. all of the above

234. Article 555 Marinas Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.15 Replacement of Equipment. Informational Note: NFPA 303-2021, Fire Protection Standard for Marinas and Boatyards, is a resource for guiding the _____ inspection of a marina.

- a. building
- b. construction
- c. electrical
- d. all of the above

235. Article 555 Marinas Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.36 Disconnecting Means for Shore Power Connection(s). (C) Emergency Electrical Disconnect. Each marina power outlet or enclosure that provides shore power to boats shall be provided with a _____ emergency shutoff device or electrical disconnect that is clearly marked "Emergency Shutoff" in accordance with 110.22(A).

- a. identified
- b. approved
- c. listed
- d. all of the above

236. Article 555 Marinas Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.36 Disconnecting Means for Shore Power Connection(s). (C) Emergency Electrical Disconnect. The _____ shall

be within sight of the marina power outlet or other enclosure that provides shore power to boats, readily accessible, externally operable, manually resettable.

- a. emergency shutoff device
- b. electrical disconnect
- c. both a or b
- d. both a and b

237. Article 555 Marinas Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.36 Disconnecting Means for Shore Power Connection(s). (C) Emergency Electrical Disconnect. The emergency shutoff device or electrical disconnect shall be listed for use in ____ locations.

- a. damp
- b. rain-proof
- c. wet
- d. all of the above

238. Article 555 Marinas Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.36 Disconnecting Means for Shore Power Connection(s). (C) Emergency Electrical Disconnect. The emergency shutoff device or electrical disconnect shall _____ the power supply to all circuits supplied by the marina power outlet(s) or enclosure(s) that provide shore power to boats.

- a. de-invigorate
- b. de-energize
- c. short out
- d. all of the above

239. Article 555 Marinas Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities 555.36 Disconnecting Means for Shore Power Connection(s). (C) Emergency Electrical Disconnect. A circuit breaker handle ____ used for this purpose.

- a. shall not be
- b. shall be
- c. could be
- d. none of the above

240. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. Each outlet installed for the purpose of supplying EVSE greater than 16 amperes or 120 volts shall be supplied by an _____ branch circuit.

- a. shared
- b. individual
- c. specific
- d. distinct

241. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. Exception: Branch circuits shall be permitted to feed _____ EVSE's as permitted by 625.42(A) or (B).

- a. only one
- b. multiple
- c. solitary
- d. none of the above

242. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.42 Rating. The EVSE shall have sufficient rating to supply the load served. Electric vehicle charging loads shall be considered to be _____ loads for the purposes of this article.

- a. half-time
- b. continuous
- c. semi-continuous
- d. non-continuous

243. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.42 Rating. _____ shall be sized in accordance with the product ratings, unless the overall rating of the installation can be limited through controls as permitted by 625.42 (A) or (B).

- a. Service
- b. Feeder
- c. both a or b
- d. both a and b

244. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.42 Rating (A) Energy Management System (EMS). Where an EMS in accordance with 750.30 provides load management of EVSE, the maximum equipment load on a service and feeder shall be the maximum load permitted by the _____.

- a. NEC
- b. EMS
- c. conductor size
- d. overcurrent device

245. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.42 Rating (A) Energy Management System (EMS). The EMS shall be permitted to be integral to one piece of equipment or integral to a listed system consisting of more than one piece of equipment. When one or more pieces of equipment are provided with an internal load management control, the system shall be _____ to indicate this control is provided.

- a. listed
- b. approved
- c. marked

d. identified

246. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.42 Rating (B) EVSE with Adjustable Settings. EVSE with restricted access to an ampere adjusting means complying with 750.30(C) _____ be permitted.

a. shall

b. shall not

c. both a or b

d. none of the above

247. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.42 Rating (B) EVSE with Adjustable Settings. If adjustments have an impact on the rating label, those changes shall be in accordance with manufacturer's instructions, and the adjusted rating shall appear on the rating _____ with sufficient durability to withstand the environment involved.

a. ticket

b. tag

c. label

d. marker

248. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.42 Rating (B) EVSE with Adjustable Settings. EVSE as referenced shall be permitted to have ampere ratings that are _____ the adjusted current settings.

a. greater than

b. equal to

c. less than

d. none of the above

249. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.43 Disconnecting Means. For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a _____ shall be installed on the equipment denoting the location of the disconnecting means.

a. tablet

b. inscription

c. plaque

d. all of the above

250. Article 625 Electric Vehicle Power Transfer System 625.40 Electric Vehicle Branch Circuit. 625.43 Disconnecting Means. The disconnecting means shall be lockable _____ in accordance with 110.25.

a. closed

b. open

- c. fastened
- d. none of the above

251. Article 625 Electric Vehicle Power Transfer System 625.49 Island Mode. EVPE and bidirectional EVSE that incorporate a power export function shall be permitted to be part of an interconnected power system operating in ____ mode.

- a. isle
- b. islet
- c. island
- d. none of the above

252. Article 630 Electric Welders 630.8 Ground-Fault Circuit-Interrupter Protection for Personnel. All 125-volt, _____-ampere receptacles for electrical hand tools or portable lighting equipment, supplied by single-phase branch circuits rated 150 volts or less to ground, installed in work areas where welders are operated shall have ground-fault circuit-interrupter protection for personnel.

- a. 15
- b. 20
- c. 30
- d. both a and b

253. Article 680 Swimming Pools, Fountains, and Similar Installations 680.5 Ground-Fault Circuit-Interrupter Protection (GFCI) and Special Purpose Ground-Fault Circuit- Interrupter (SPGFCI) Protection. (A) General. The _____ requirements in this article, unless otherwise noted, are in addition to the requirements in 210.8.

- a. GFCI
- b. SPGFCI
- c. both a or b
- d. both a and b

254. Article 680 Swimming Pools, Fountains, and Similar Installations 680.5 Ground-Fault Circuit-Interrupter Protection (GFCI) and Special Purpose Ground-Fault Circuit- Interrupter (SPGFCI) Protection. (B) 150 Volts or Less to Ground. Where required in this article, ground-fault protection of receptacles and outlets on branch circuits rated 150 volts or less to ground and 60 amperes or less, single- or 3-phase, shall be provided with a Class _____.

- a. A GFCI
- b. B GFCI
- c. C GFCI
- d. A AFCI

255. Article 680 Swimming Pools, Fountains, and Similar Installations 680.5 Ground-Fault Circuit-Interrupter Protection (GFCI) and Special Purpose Ground-Fault Circuit- Interrupter (SPGFCI) Protection. (B) 150 Volts or Less to Ground. Exception: Receptacles and outlets that are part of _____ equipment

with ratings not exceeding the low-voltage contact limit that are supplied by listed transformers or power supplies that comply with 680.23(A)(2) shall not be required to be provided with ground-fault protection.

- a. listed
- b. approved
- c. marked
- d. identified

256. Article 680 Swimming Pools, Fountains, and Similar Installations 680.5 Ground-Fault Circuit-Interrupter Protection (GFCI) and Special Purpose Ground-Fault Circuit- Interrupter (SPGFCI) Protection. (B) 150 Volts or Less to Ground. Informational Note: The high leg of a 120/240-volt 4-wire delta-connected system, and the two ungrounded phases of a corner-grounded delta system have a voltage to ground greater than 150 volts, _____ the limit for a Class A GFCI.

- a. not exceeding
- b. exceeding
- c. both a or b
- d. none of the above

257. Article 680 Swimming Pools, Fountains, and Similar Installations 680.5 Ground-Fault Circuit-Interrupter Protection (GFCI) and Special Purpose Ground-Fault Circuit- Interrupter (SPGFCI) Protection. (C) Above 150 Volts to Ground. Where required in this article, ground-fault protection of receptacles and outlets on branch circuits operating at voltages above 150 volts to ground, not exceeding 480 volts phase-to-phase, single-or 3-phase, shall be provided with SPGFCI protection not to exceed _____-mA ground-fault trip current.

- a. 10
- b. 20
- c. 15
- d. 30

258. Article 680 Swimming Pools, Fountains, and Similar Installations 680.5 Ground-Fault Circuit-Interrupter Protection (GFCI) and Special Purpose Ground-Fault Circuit- Interrupter (SPGFCI) Protection. (C) Above 150 Volts to Ground. Informational Note: See UL 943C, Outline of Investigation for Special Purpose Ground-Fault Circuit Interrupters, for information on Classes ____ ground-fault circuit interrupters.

- a. C
- b. D
- c. E
- d. all of the above

259. Article 680 Swimming Pools, Fountains, and Similar Installations 680.10 Electric Pool Water Heaters Incorporating Resistive Heating Elements and

Electrically Powered Swimming Pool Heat Pumps and Chillers. (B) Electrically Powered Swimming Pool Heat Pumps and Chillers. Electrically powered swimming pool heat pumps and chillers using the circulating water system and providing heating, cooling, or both, shall be _____ for their intended use.

- a. listed
- b. rated
- c. identified
- d. both a and b

260. Article 680 Swimming Pools, Fountains, and Similar Installations 680.10 Electric Pool Water Heaters Incorporating Resistive Heating Elements and Electrically Powered Swimming Pool Heat Pumps and Chillers. (B) Electrically Powered Swimming Pool Heat Pumps and Chillers. The ampacity of the branch-circuit conductors and the rating or setting of overcurrent protective devices shall be sized to comply with the _____.

- a. listing
- b. rating
- c. nameplate
- d. all of the above

261. Article 680 Swimming Pools, Fountains, and Similar Installations 680.12 Equipment Rooms, Vaults, and Pits. (B) Receptacles. At least _____ GFCI-protected 125-volt, 15- or 20-ampere receptacle supplied from a general purpose branch circuit shall be located within an equipment room.

- a. 1
- b. 2
- c. 3
- d. 4

262. Article 680 Swimming Pools, Fountains, and Similar Installations 680.12 Equipment Rooms, Vaults, and Pits. (B) Receptacles. All other receptacles supplied by branch circuits rated 150 volts or less to ground within an equipment room and any receptacles supplied by a branch circuit rated 150 volts or less to ground in a vault or pit shall be _____ protected.

- a. GFCI
- b. B GFCI
- c. A GFCI
- d. A AFCI

263. Article 680 Swimming Pools, Fountains, and Similar Installations 680.22 Lighting, Receptacles, and Equipment (A) Receptacles (4) Ground-Fault Circuit-Interrupter (GFCI) and Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection. All receptacles rated 125 volts through 250 volts, 60 amperes or less, located within 6.0 m (20 ft.) of the inside walls of a pool shall have _____, as applicable.

- a. GFCI protection complying with 680.5(B)
- b. SPGFCI protection complying with 680.5(C)
- c. both a or b
- d. both a and b

264. Article 700 – Emergency Systems 700.3 Tests and Maintenance
(A) Commissioning Witness Test. The authority having Jurisdiction shall _____ the commissioning of the complete system upon installation and periodically afterward.

- a. conduct
- b. witness
- c. both a or b
- d. both a and b

265. Article 706 Energy Storage Systems 706.7 Commissioning and Maintenance (A) Commissioning. ESSs shall be commissioned upon installation. This _____ apply in one-and-two family dwellings

- a. shall not
- b. shall
- c. could
- d. none of the above

266. Article 700 – Emergency Systems 700.11 Wiring, Class-2-Powered Emergency Lighting Systems. (A) General. Line voltage supply wiring and installation of Class 2 emergency lighting control devices shall comply with 700.10. Class 2 emergency circuits shall comply with 700.11(B) through (D). (B) Identification. Emergency circuits shall be permanently marked so they will be readily identified as a component of an emergency circuit or system by the following methods:

- a. All boxes and enclosures for Class 2 emergency circuits shall be permanently marked as a component of an emergency circuit or system.
- b. Exposed cable, cable tray, or raceways systems shall be permanently marked to be identified as a component of an emergency circuit or system, within 900 mm (3 ft) of each connector and at intervals not to exceed 7.6 m (25 ft).
- c. both a or b
- d. none of the above

267. Article 700 – Emergency Systems 700.11 Wiring, Class-2-Powered Emergency Lighting Systems. (C) Separation of Circuits. Class 2 emergency circuits shall be wired in a _____.

- a. listed wiring method
- b. jacketed cable
- c. with one of the wiring methods of Chapter 3
- d. all of the above

268. Article 700 – Emergency Systems 700.11 Wiring, Class-2-Powered Emergency Lighting Systems. (C) Separation of Circuits. If installed alongside nonemergency Class ____ circuits that are bundled, Class 2 emergency circuits shall be bundled separately.

- a. 1
- b. 2
- c. 3
- d. 4

269. Article 700 – Emergency Systems 700.11 Wiring, Class-2-Powered Emergency Lighting Systems. (C) Separation of Circuits. If installed alongside nonemergency Class 2 circuits that are not bundled, Class 2 emergency circuits shall be separated by a _____ from all other Class 2 circuits. Separation from other circuits shall comply with 725.136.

- a. nonconductive sleeve
- b. nonconductive barrier
- c. both a or b
- d. both a and b

270. Article 800 General Requirements for Communications Systems 800.3 Other Articles. (H) Bonding and Grounding of Cable Shields. The requirements of 250.4(A)(5) shall apply to the ____ shields of cables used for communications.

- a. insulated
- b. non conductive
- c. metal
- d. none of the above

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1	a b c d	40	a b c d	79	a b c d
2	a b c d	41	a b c d	80	a b c d
3	a b c d	42	a b c d	81	a b c d
4	a b c d	43	a b c d	82	a b c d
5	a b c d	44	a b c d	83	a b c d
6	a b c d	45	a b c d	84	a b c d
7	a b c d	46	a b c d	85	a b c d
8	a b c d	47	a b c d	86	a b c d
9	a b c d	48	a b c d	87	a b c d
10	a b c d	49	a b c d	88	a b c d
11	a b c d	50	a b c d	89	a b c d
12	a b c d	51	a b c d	90	a b c d
13	a b c d	52	a b c d	91	a b c d
14	a b c d	53	a b c d	92	a b c d
15	a b c d	54	a b c d	93	a b c d
16	a b c d	55	a b c d	94	a b c d
17	a b c d	56	a b c d	95	a b c d
18	a b c d	57	a b c d	96	a b c d
19	a b c d	58	a b c d	97	a b c d
20	a b c d	59	a b c d	98	a b c d
21	a b c d	60	a b c d	99	a b c d
22	a b c d	61	a b c d	100	a b c d
23	a b c d	62	a b c d		
24	a b c d	63	a b c d		
25	a b c d	64	a b c d		
26	a b c d	65	a b c d		
27	a b c d	66	a b c d		
28	a b c d	67	a b c d		
29	a b c d	68	a b c d		
30	a b c d	69	a b c d		
31	a b c d	70	a b c d		
32	a b c d	71	a b c d		
33	a b c d	72	a b c d		
34	a b c d	73	a b c d		
35	a b c d	74	a b c d		
36	a b c d	75	a b c d		
37	a b c d	76	a b c d		
38	a b c d	77	a b c d		
39	a b c d	78	a b c d		

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101	a b c d	139	a b c d	177	a b c d
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103	a b c d	141	a b c d	179	a b c d
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105	a b c d	143	a b c d	181	a b c d
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136	a b c d	174	a b c d		
137	a b c d	175	a b c d		
138	a b c d	176	a b c d		

2023 NEC Changes Quiz 270 Answer Sheet

201	a b c d	239	a b c d		
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