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05 changes-4 5 Hours of Credit

Article 320 Armored Cable: Type AC

1. When Type AC cable is installed in thermal insulation, it must have conductors that are rated at 90°C. The ampacity of the cable in this application is _____.
- (a) based on 90°C column
 - (b) as labeled by the manufacturer
 - (c) based on the 60°C column
 - (d) none of these

Article 330 Metal-Clad Cable: Type MC

2. Type MC cable containing four or fewer conductors, sized no larger than 10 AWG, must be secured within _____ of every box, cabinet, fitting, or other cable termination.
- (a) 8 in.
 - (b) 18 in.
 - (c) 12 in.
 - (d) 24 in.

Article 334 Nonmetallic-Sheathed Cable: Types NM, NMC and NMS

3. Sections of Type NM cable protected from physical damage by raceway are not required to be _____ within the raceway.
- (a) covered
 - (b) insulated
 - (c) secured
 - (d) unspliced

Article 348 Flexible Metal Conduit: Type FMC

4. FMC must be supported and secured _____
- (a) at intervals not exceeding 4 1/2 ft
 - (b) within 8 in. on each side of a box where fished
 - (c) where fished
 - (d) at intervals not exceeding 6 ft at motor terminals
5. When flexible metal conduit is used to install equipment where flexibility is required, _____ must be installed.
- (a) an equipment grounding (bonding) conductor
 - (b) an expansion fitting
 - (c) flexible nonmetallic connectors
 - (d) a neutral conductor one size larger

Article 350 Liquidtight Flexible Metal Conduit: Type LFMC

6. When LFMC is used to connect equipment requiring flexibility, a separate _____ conductor must be installed.
- (a) main bonding jumper
 - (b) grounded
 - (c) equipment grounding
 - (d) none of these

Article 376 Metal Wireways

7. Where insulated conductors are deflected within a metallic wireway, the wireway must be sized to meet the bending requirements corresponding to one wire per terminal in Table 312.6(A).
- (a) True
 - (b) False
8. Power distribution blocks installed in metal wireways must _____.
- (a) allow for sufficient wire-bending space at terminals
 - (b) not have exposed live parts after installation
 - (c) either a or b
 - (d) both a and b

Article 386 Surface Metal Raceways

9. Where combination surface metal raceways are used for both signaling and for lighting and power circuits, the different systems must be run in separate compartments identified by _____ of the interior finish.
- (a) stamping
 - (b) imprinting
 - (c) color-coding
 - (d) any of these

Chapter 4 Equipment for General Use

Article 400 Flexible Cords and Cables

10. Where flexible cords are used in ambient temperatures exceeding _____ the temperature correction factors from Table 310.16 that correspond to the temperature rating of the cord must be applied to the ampacity from Table 400.5(A) or 400.5(B).
- (a) 60°C
 - (b) 30°C
 - (c) 75°C
 - (d) 90°C

Article 404 Switches

11. A snap switch without a grounding connection is allowed for replacement purposes only where the wiring method does not include an equipment ground and must be _____.
- (a) provided with a faceplate of nonconducting, noncombustible material

- (b) protected by a ground-fault circuit interrupter
- (c) a or b
- (d) none of these

Article 406 Receptacles, Cord Connectors, and Attachment Plugs (Caps)

12. _____, 125 and 250V receptacles installed in a wet location must have an enclosure that is weatherproof whether or not the attachment plug cap is inserted.

- (a) 15A
- (b) 20A
- (c) a and b
- (d) none of these

13. A receptacle must not be installed within or directly over a bathtub or shower space.

- (a) True
- (b) False

Article 408 Switchboards and Panelboards

14. The purpose or use of panelboard circuits and circuit _____ must be legibly identified on a circuit directory located on the face or inside of the doors of a panelboard, and at each switch on a switchboard.

- (a) manufacturers
- (b) conductors
- (c) feeders
- (d) modifications

Article 410 Luminaires, Lampholders, and Lamps

15. **Article 410** covers luminaires, lampholders, pendants, and _____ and the wiring and equipment forming part of such products and lighting installations.

- (a) decorative lighting products
- (b) lighting accessories for temporary seasonal and holiday use
- (c) portable flexible lighting products
- (d) all of these

16. Luminaires subject to physical damage, using a _____ lamp, installed in playing and spectator seating areas of indoor sports, mixed-use, or all-purpose facilities must be of the type that protects the lamp with a glass or plastic lens. Such luminaires are permitted to have an additional guard.

- (a) mercury vapor
- (b) metal halide
- (c) fluorescent
- (d) a or b

17. Luminaires containing a metal halide lamp, other than a thick-glass parabolic reflector lamp (PAR), must be provided with a containment barrier that encloses the lamp, or the luminaire must be provided with a physical means that only allows the use of a _____.

- (a) Type "O" lamp
- (b) Type PAR lamp

- (c) a or b
- (d) inert gas

Article 422 Appliances

18. A storage-type water heater having a capacity of _____ gallons or less is considered a continuous load.

- (a) 60
- (b) 75
- (c) 90
- (d) 120

19. For permanently-connected appliances rated over _____ or 1/8 hp, the branch-circuit switch or circuit breaker is permitted to serve as the disconnecting means where the switch or circuit breaker is within sight from the appliance or is capable of being locked in the open position with a permanently installed locking provision.

- (a) 200 VA
- (b) 300 VA
- (c) 400 VA
- (d) 500 VA

Article 424 Fixed Electric Space-Heating Equipment

20. Fixed electric space-heating equipment is considered a(n) _____ load.

- (a) noncontinuous
- (b) intermittent
- (c) continuous
- (d) none of these

Chapter 5 Special Occupancies

Article 500 Hazardous (Classified) Locations, Classes I, II and III, Divisions 1 and 2

21. For listed explosionproof equipment, factory threaded entries must be made up with at least _____ threads fully engaged.

- (a) 5
- (b) 4 ½
- (c) 6
- (d) no minimum

Article 501 Class I Locations

22. A conduit seal fitting must be installed in each conduit that passes from a Class I, Division 2 location into an unclassified location. Conduit boundary seals are not required to be _____, but must be identified for the purpose of minimizing the passage of gases under normal operating conditions.

- (a) listed
- (b) installed
- (c) explosionproof
- (d) accessible

Article 511 Commercial Garages, Repair, and Storage

23. Any pit or depression below a garage floor level of a lubrication or service room where Class I liquids are not transferred is considered to be a Class I, Division _____ location up to floor level and extending 18 in. above floor level and 3 ft horizontally.

- (a) 1
- (b) 2
- (c) 3
- (d) not classified

24. Where CNG (compressed natural gas) vehicles are repaired or stored, the area within _____ in. of the ceiling is classified as Class I, Division 2, except where ventilation of at least 1 cubic ft per minute per sq ft (cfm/sq ft) of ceiling area is taken from a point within 18 in. of the highest point in the ceiling of major repair garages.

- (a) 6
- (b) 12
- (c) 18
- (d) 24

Article 514 Motor Fuel Dispensing Facilities

25. Article 514 applies to _____ and fleet vehicle motor fuel dispensing facilities.

- (a) motor fuel dispensing facilities located inside or outside
- (b) marine fuel dispensing facilities
- (c) commercial gas stations for motor vehicles only
- (d) both a and b

Article 517 Health Care Facilities

26. Receptacles located within the rooms, bathrooms, playrooms, activity rooms, and patient care areas of pediatric wards, rooms or areas must be listed _____.

- (a) tamper resistant
- (b) isolated
- (c) GFCI protected
- (d) specification grade

Article 525 Carnivals, Circuses, Fairs, and Similar Events

27. Where multiple services or separately derived systems or both supply rides, attractions, and other structures of carnival, circuses, fairs and similar events, all sources of supply that serve rides, attractions, or other structures separated by less than _____ must be bonded to the same grounding electrode system.

- (a) 12 ft
- (b) 8 ft
- (c) 16 ft
- (d) 6 ft

28. At carnivals, circuses, and fairs, GFCI protection is not required for receptacles that only facilitate the quick disconnecting and reconnecting of electrical equipment and are of the locking type.

- (a) True
- (b) False

Article 547 Agricultural Buildings

29. All 15 and 20A, 125V, 1Ø general-purpose receptacles installed _____ of agricultural buildings must have ground-fault circuit-interrupter protection for personnel.

- (a) in areas having an equipotential plane
- (b) outdoors
- (c) in dirt confinement areas for livestock
- (d) any of these

Article 551 Recreational Vehicles and Recreational Vehicle Parks

30. A minimum of 20 percent of all recreational vehicle sites with electrical supply must each be equipped with a _____, 125/250V receptacle.

- (a) 15A
- (b) 20A
- (c) 30A
- (d) 50A

Article 555 Marinas and Boatyards

31. Electrical wiring and equipment at marine craft repair facilities containing flammable or combustible liquids or gases must comply with the requirements contained in _____

- (a) Article 511
- (b) Article 555
- (c) Article 513
- (d) a and b

Article 590 Temporary Installations

32. Vegetation cannot be used for support of overhead spans of _____.

- (a) branch circuits
- (b) feeders
- (c) holiday lighting branch circuits with proper strain relief
- (d) a or b

Chapter 6 Special Equipment

Article 605 Office Furnishings (Wired Partitions)

33. Multiwire branch circuits that supply power to the wired partitions of office furnishings for _____ must be provided with a means to simultaneously disconnect all ungrounded conductors where the branch circuit originates.

- (a) fixed-type partitions
- (b) free-standing type partitions
- (c) both a and b
- (d) none of these

Article 625 Electric Vehicle Charging System

34. Electric vehicle supply equipment that is identified for and intended to be interconnected to a vehicle, and also serve _____, must be listed as suitable for that purpose.

- (a) as an optional standby system
- (b) as an electric power production source
- (c) to provide bidirectional power feed
- (d) all of these

Article 640 Audio Signal Processing, Amplification, and Reproduction Equipment

35. Audio cables installed exposed on the surface of ceiling and sidewalls must be supported by the structural components of the building in such a manner that the cable will not be damaged by normal building use. Such cables must be supported by _____ designed and installed so as not to damage the cable.

- (a) straps
- (b) staples
- (c) hangers
- (d) any of these

Article 680 Swimming Pools, Fountains, and Similar Installations

36. All wet-niche luminaires installed in swimming pools must be removable from the water for relamping or normal maintenance and must be installed in such a manner that personnel can reach the luminaire for relamping, maintenance, or inspection while _____.

- (a) the pool is drained
- (b) the person is on the deck or a dry location
- (c) during construction
- (d) all of these

37. 15 and 20 amp, 1Ø, 125 volt receptacles located within _____ of the inside walls of a storable pool must be protected by a ground-fault circuit interrupter.

- (a) 8 ft
- (b) 10 ft
- (c) 15 ft
- (d) 20 ft

Article 695 Fire Pumps

38. The _____ for a transformer that supplies fire pumps must carry indefinitely the sum of the locked-rotor current of the fire pump motor(s) and the pressure maintenance pump motor(s), and the full-load current of the associated fire pump accessory equipment when connected to this power supply.

- (a) primary overcurrent protective device(s)
- (b) pump motor conductors
- (c) both a and b
- (d) none of these

Chapter 7 Special Conditions

Article 700 Emergency Systems

39. Overcurrent protection devices for emergency power systems _____ all supply-side overcurrent protective devices.

- (a) must be selectively coordinated with
- (b) are allowed to be selectively coordinated with
- (c) must be the same amperage as
- (d) must be a larger amperage than

Article 701 Legally Required Standby Systems

40. Overcurrent protection devices for legally required power systems _____ all supply side overcurrent protective devices.

- (a) must be selectively coordinated with
- (b) are allowed to be selectively coordinated with
- (c) must be the same amperage as
- (d) must be a higher amperage than

Article 702 Optional Standby Systems

41. Where a generator for an optional standby system is installed outdoors and equipped with a readily accessible disconnecting means located _____, an additional disconnecting means is not required where ungrounded conductors serve or pass through the building or structure.

- (a) inside the building or structure
- (b) within sight of the building or structure
- (c) inside the generator enclosure
- (d) a or c

Article 725 Class 1, Class 2, and Class 3 Remote-Control, Signaling and Power-Limited Circuits

42. Class 1, 2, and 3 cables installed _____ on the surface of ceilings and sidewalls must be supported by the building structure in such a manner that the cable will not be damaged by normal building use.

- (a) exposed
- (b) concealed
- (c) hidden
- (d) a and b

43. Listed plenum signaling raceways are permitted to be installed in other spaces used for environmental air as described in 300.22(C). Only _____ cable shall be installed in these raceways.

- (a) Type CL2P
- (b) Type CL3P
- (c) a or b
- (d) none of these

Article 760 Fire Alarm Systems

44. The power source for a power-limited fire alarm (PLFA) circuit is allowed to be supplied through a ground-fault circuit interrupter or an arc fault circuit interrupter.

- (a) True
- (b) False

45. Audio system circuits described in 640.9(C) and using Class 2 or Class 3 wiring methods are not permitted to be installed in the same cable or raceway with _____.

- (a) other audio system circuits
- (b) power-limited fire alarm conductors or cables
- (c) a or b
- (d) none of these

Article 770 Optical Fiber Cables and Raceways

46. Listed plenum optical fiber raceway, listed riser optical fiber raceway, or listed general-purpose optical fiber raceway installed in accordance with 770.154 can be installed as _____ in any type of listed raceway permitted in Chapter 3.

- (a) innerduct
- (b) ductfill
- (c) busway
- (d) a or b

Chapter 8 Communications Systems

Article 800 Communications Circuits

47. All accessible portions of abandoned communications cable must be removed.

- (a) True
- (b) False

48. Exposed communications cables must be secured by straps, staples, hangers, or similar fittings designed and installed so as not to damage the cable.

- (a) True
- (b) False

Article 820 Community Antenna Television and Radio Distribution Systems

49. CATV cables installed _____ on the surface of ceilings and sidewalls must be supported by the building structure in such a manner that the cable will not be damaged by normal building use.

- (a) exposed
- (b) concealed
- (c) hidden
- (d) a and b

50. Limiting the length of the primary protector grounding conductors for community antenna television and radio systems on one- and two-family dwellings reduces differences in potential between the building's _____ and communications systems during lightning events.

- (a) power
- (b) fire alarm
- (c) lighting
- (d) lightning protection

2005 NEC Code Part 4 (05 changes 4) -Quiz Answer Sheet

- | | | | | | | | | | |
|----|---|---|---|---|----|---|---|---|---|
| 1 | a | b | c | d | 26 | a | b | c | d |
| 2 | a | b | c | d | 27 | a | b | c | d |
| 3 | a | b | c | d | 28 | a | b | c | d |
| 4 | a | b | c | d | 29 | a | b | c | d |
| 5 | a | b | c | d | 30 | a | b | c | d |
| 6 | a | b | c | d | 31 | a | b | c | d |
| 7 | a | b | c | d | 32 | a | b | c | d |
| 8 | a | b | c | d | 33 | a | b | c | d |
| 9 | a | b | c | d | 34 | a | b | c | d |
| 10 | a | b | c | d | 35 | a | b | c | d |
| 11 | a | b | c | d | 36 | a | b | c | d |
| 12 | a | b | c | d | 37 | a | b | c | d |
| 13 | a | b | c | d | 38 | a | b | c | d |
| 14 | a | b | c | d | 39 | a | b | c | d |
| 15 | a | b | c | d | 40 | a | b | c | d |
| 16 | a | b | c | d | 41 | a | b | c | d |
| 17 | a | b | c | d | 42 | a | b | c | d |
| 18 | a | b | c | d | 43 | a | b | c | d |
| 19 | a | b | c | d | 44 | a | b | c | d |
| 20 | a | b | c | d | 45 | a | b | c | d |
| 21 | a | b | c | d | 46 | a | b | c | d |
| 22 | a | b | c | d | 47 | a | b | c | d |
| 23 | a | b | c | d | 48 | a | b | c | d |
| 24 | a | b | c | d | 49 | a | b | c | d |
| 25 | a | b | c | d | 50 | a | b | c | d |

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