

1. Flexible cords and cables shall be used only for the following except for
 - a. Elevator cables
 - b. Wiring of cranes and hoists
 - c. Prevention of the transmission of noise or vibration
 - d. Where run through doorways, windows, or similar openings
2. According to PEC, which of the following is not a standard practice?
 - a. Conductors shall be secured in a manner that does not tend to cut or abrade the insulation.
 - b. Conductor insulation shall be protected from abrasion where it passes through metal.
 - c. Splices and taps shall not be located within luminaire (fixture) arms or stems.
 - d. Splices or taps shall be made within or on a luminaire (fixture).
3. Which of the following is not correct Flexible cord shall be of the hard-service type.
 - a. Having conductors not smaller than the branch-circuit conductors
 - b. Having ampacity at least equal to the branch-circuit over current device
 - c. Having an equipment grounding conductor.
 - d. Having an enough Tension to carry 24 kg weight.
4. Which of the following is the least required by the Code? Flexible cords shall be secured to the undersides of showcases so that
 - a. Wiring is not exposed to mechanical damage.
 - b. A separation between cases not in excess of 50 mm or more than 300 mm between the first case and the supply receptacle is ensured.
 - c. The free lead at the end of a group of showcases has a female fitting not extending beyond the case.
 - d. There is still an allowable 150 non heating conductor for the connection at the junction box
5. Luminaires (fixtures) that require adjusting or aiming after installation shall not be required to be equipped with a/an _____ provided the exposed cord is of the hard-usage or extra-hard-usage type and is not longer than that required for maximum adjustment. The cord shall not be subject to strain or physical damage.
 - a. attachment plug or cord connector
 - b. additional support
 - c. grounding
 - d. Tie wire
6. A bushing or the equivalent shall be provided where flexible cord enters at _____. The bushing shall be of insulating material unless a jacketed type of cord is used.
 - a. the base or stem of a portable lamp
 - b. the conduit
 - c. the junction box
 - d. Service cap at the service point
7. Additional feeders or branch circuits shall be permitted to supply the following except for.
 - a. Fire pumps
 - b. Emergency systems
 - c. Legally required standby systems
 - d. Motor of the Elevator
8. Additional feeders or branch circuits shall be permitted where the capacity requirements are in excess of _____ amperes at a supply voltage of _____ volts or less.
 - a. 2000, 600
 - b. 200, 600
 - c. 1000, 460
 - d. 100, 230
9. The disconnecting means for each supply permitted shall consist of not more than _____ switches or _____ circuit breakers mounted in a single enclosure, in a group of separate enclosures, or in or on a switchboard.
 - a. 6, 6
 - b. 48, 48
 - c. 42, 42
 - d. 10, 10

10. The vertical clearances of all service-drop conductors shall be based on conductor temperature of _____, no wind, with final unloaded sag in the wire, conductor, or cable.
a. 15°C c. 5°C c. 60°C d. 75°C
11. A grounded conductor shall be permitted to be uninsulated as follows except for.
 - a. Bare copper used in a raceway
 - b. Bare copper for direct burial where bare copper is judged to be suitable for the soil conditions
 - c. Bare copper for direct burial without regard to soil conditions where part of a cable assembly identified for underground use.
 - d. Aluminum
12. The ampacity of the service-entrance conductors before the application of any adjustment or correction factors shall not be less than.
 - a. The sum of the noncontinuous loads plus 100 percent of continuous loads
 - b. The sum of noncontinuous load plus the continuous load if the service-entrance conductors terminate in an overcurrent device where both the overcurrent device and its assembly are listed for operation at 100 percent of their rating
 - c. 100 percent of the maximum permissible load
 - d. 115 of the rating of the disconnect
13. Service cables, where subject to physical damage, shall be protected by any of the following except for.
 - a. Rigid metal conduit
 - b. Intermediate metal conduit
 - c. Rigid nonmetallic conduit suitable for the location
 - d. Split knob and tube
14. The standard ampere ratings for fuses and inverse time circuit breakers are any of the following except for.
 - a. 35
 - b. 45
 - c. 125
 - d. 185
15. According to NEC restricted access shall be defined as located behind one of the following except for.
 - a. Removable and sealable covers over the adjusting means
 - b. Bolted equipment enclosure doors
 - c. Locked doors accessible only to qualified personnel
 - d. MV switch gear
16. Overcurrent devices shall be readily accessible unless one of the following applies.
 - a. For busways
 - b. For supplementary overcurrent protection
 - c. For overcurrent devices in a fuse cut out
 - d. For overcurrent devices adjacent to utilization equipment that they supply, access shall be permitted to be by portable means.
17. The allowable ampacity of conductor are rated up to _____ volts.
 - a. 600
 - b. 2000
 - c. 1000
 - d. 220
18. The ampacity of 3.5 sq mm THWN copper conductor is 30 A in free air. What will be its allowable ampacity if it will be directly buried.
 - a. 20
 - b. 35
 - c. 25
 - d. 40

19. In dwelling units and guest rooms of hotels and motels and similar occupancies, the voltage shall not exceed 230 V, nominal between conductors that supply the terminal of the following. Which one is not included in the standard?
- Lighting fixture
 - 1440 VA connected load
 - Load less than $\frac{1}{4}$ hp
 - 200 W per receptacle
20. For ranges 8 $\frac{3}{4}$ kW or more rating, the minimum Branch Circuit shall be.
- 35
 - 40
 - 50
 - 45
21. What shall be the minimum size of conductor for signage?
- 2.0 sq mm.
 - 3.5 sq. mm
 - 5.5 sq mm
 - 8.0 sq mm
22. An outlet dedicated only to supply four loads of 250 W, 15 W, 100W and 200 W. What will be the minimum size of conductor in the outlet?
- 2.0 sq mm.
 - 3.5 sq. mm
 - 5.5 sq mm
 - 8.0 sq mm
23. A 100 % demand factor shall only apply for Electric Clothes dryer up _____ units or less.
- 5
 - 4
 - 6
 - 8
24. 15 dwelling units has a demand factor of.
- 40 %
 - 50%
 - 30 %
 - 100%
25. Overhead conductor for festoon lighting shall not be smaller than.
- 2.0 sq mm.
 - 3.5 sq. mm
 - 5.5 sq mm
 - 8.0 sq mm
26. In Lighting system, A span exceeding _____ m, the conductor shall be supported by _____.
- 15, rossete
 - 10, mast
 - 12, messenger wire
 - 5, plenum
27. What shall be the minimum creepage distance between open conductor.
- 1000 mm
 - 100 mm
 - 10 mm
 - 1 mm
28. What shall be the minimum separation of conductor on Poles.
- 3000 mm
 - 300 mm
 - 30 mm
 - 3 mm
29. What shall be the minimum climbing space between power and communication conductor @ nominal voltage of 600 V.
- 5500 mm
 - 760 mm
 - 1900 mm
 - 1000 mm
30. The size of bonding jumper conductor for a system that supplies Class I – III circuit and is derived from the transformer rated not more than 1 kV shall not be smaller than _____ copper and _____ aluminum.
- 2.0 sq mm, 3.5 sq mm
 - 3.5 sq. mm, 5.5 sq mm
 - 5.5 sq mm, 8.0 sq mm
 - 8.0 sq mm, 14.0 sq mm
31. The size of conductor for grounding of instrument transformer shall be.
- 2.0 sq mm, 3.5 sq mm
 - 3.5 sq. mm, 5.5 sq mm
 - 5.5 sq mm, 3.5 sq mm
 - 8.0 sq mm, # 8 AWG

32. Where installed in raceways, conductors of size _____ and larger shall be stranded.
a. 14.0 sq mm. b. 3.5 sq. mm c. 5.5 sq mm **d. 8.0 sq mm**
33. According to PEC only conductors _____ or larger are permitted to be connected in parallel to form a single conductor.
a. 50 sq mm b. 125 sq mm c. 14.0 sq mm d. 200 sq mm
34. Which of the following is not an approved corrosion resistant material for conduit?
a. zinc b. cadmium c. enamel **d. Nickel**
35. This particular size of wire can still be operated from 2 kV up to 8 kV
a. 2.0 sq mm. b. 3.5 sq. mm c. 5.5 sq mm **d. 8.0 sq mm**
36. Thermoplastic insulation material may stiffen @ temperature of.
a. -10°C c. 50°C c. 10°C d. -40°C
37. What is the minimum clearance between conductors operating at 600 V.
a. 150 mm b. 300 mm c. 75 mm d. 65 mm
38. Bare conductors shall be securely and rigidly supported so that the minimum clearance between bare current-carrying metal parts of different potential mounted on the same surface will not be less than
a. . 50 mm b. 30 mm c. 75 mm d. 35 mm
39. Splices or taps shall be permitted within gutters where they are accessible by means of removable covers or doors. The conductors, including splices and taps, shall not fill the gutter to more than _____% of its area.
a. . 85 b. 60 **c. 75** d. 90
40. Recessed fluorescent luminaires (fixtures) installed in the wall or the ceiling, provided there is a minimum clearance of _____ between the luminaire (fixture) and the nearest point of a storage space.
a. 150 mm b. 300 mm c. 75 mm d. 65 mm
41. Heating cables shall not be installed in the following:
a. In closets
b. Over walls
c. Over partitions that extend to the ceiling, unless they are isolated single runs of embedded cable
d. Heating elements of cables separated at 20 mm
42. At least _____ wall switch-controlled lighting outlet shall be installed in every habitable room and bathroom.
a. one b. two c. three d. none
43. The isolating switch _____ be required where the disconnecting means is mounted on removable truck panels or metal-enclosed switchgear units that cannot be opened unless the circuit is disconnected and that, when removed from the normal operating position, automatically disconnect the circuit breaker or switch from all energized parts.
a. shall not b. shall c. should not d. should

44. Service cables, where subject to physical damage, shall be protected by any of the following except for.
- a. IMC
 - b. RMC
 - c. EMT
 - d. **SMC**
45. The meter disconnect is a load-break disconnect switch designed to interrupt the service load on standard voltage services with self-contained meter sockets. The purpose of the meter disconnect switch is to facilitate _____ except for
- a. Meter change
 - b. maintenance
 - c. disconnect service
 - d. **extension point**
46. Which of the following element are not permitted to be connected and installed on the supply side of the service disconnecting means.
- a. **Low-impedance shunt circuits**
 - b. surge arresters
 - c. surge-protective capacitors
 - d. instrument transformers (current and voltage)
47. If a switch and fuse combination is used, the fuses employed shall be capable of interrupting any current _____ than the interrupting capacity of the switch during a time that the ground-fault protective system will not cause the switch to open.
- a. **higher**
 - b. lower
 - c. equal
 - d. whichever is the available
48. No automatic cutout or switch shall be placed in the equipment _____ conductor of a premises wiring system unless the opening of the cutout or switch disconnects all sources of energy.
- a. **grounding**
 - b. ungrounded
 - c. grounded
 - d. hot
49. The terminal for the connection of the equipment grounding conductor shall be identified by one of the following except for.
- a. A green, not readily removable terminal screw with a hexagonal head.
 - b. A green, hexagonal, not readily removable terminal nut.
 - c. A green pressure wire connector.
 - d. **A green tag**
50. Means must be provided for protection of circuits that may be disconnected from the generating station bus. A switch with _____ action used to disconnect the outside circuits from the station generator and alternatively connect these circuits to ground would satisfy the condition of a single set of arresters protecting more than one circuit.
- a. single throw
 - b. tumbler
 - c. **double throw**
 - d. three way