

RME Exam 2

<c>1. Service overhead conductors to a building or other structure (such as a pole) on which a meter of disconnecting means is installed shall be considered as a _____ and installed accordingly.

- (a.) temporary service
- (b.) service lateral
- (c.) service drop
- (d.) service point

<a>2. If a switch or circuit breaker serves as the disconnecting means for a permanently connected motor driven appliance of more than _____ horsepower, it shall be located within sight from the motor controller.

- (a.) $\frac{1}{8}$
- (b.) $\frac{1}{4}$
- (c.) $\frac{1}{2}$
- (d.) $\frac{3}{4}$

<c>3. Overcurrent devices shall be enclosed in _____.

- I. cabinets
- II. Cutout boxes
- (a.) I only
- (b.) II only
- (c.) I or II
- (d.) none of these

4. Where reduced heating of the conductors results from motors operating on duty-cycle, intermittently, or from all motors not operating at one time, the feeder conductors _____.

- (a.) are not allowed to have the ampacity reduced
- (b.) may have an ampacity less than specified if acceptable to the authority having jurisdiction
- (c.) must be sized no smaller than 125% of the largest motor connected to the feeder
- (d.) must be sized not smaller than 125 % of the largest motor plus other loads

5. Live parts of generators operated at more than _____ volts to ground shall not be exposed to accidental contact where accessible to unqualified persons.

- (a.) 30
- (b.) 50
- (c.) 120
- (d.) 150

<c>6. A _____ is a circuit operating at 600 volts, nominal or less, between phases that connects two power sources or power supply points, such as the secondaries of transformers.

- I. branch circuit
- II. branch circuit multiwire
- III. secondary tie
- (a.) I only
- (b.) II only
- (c.) III only
- (d.) I and II only

<c>7. Entrances to rooms and other guarded locations containing exposed live parts shall be marked with _____ warning signs forbidding unqualified persons to enter.

- (a.) yellow
- (b.) blue
- (c.) conspicuous
- (d.) orange

<a>8. Overhead spans of open conductors and open multi conductor cables not over 600 volts shall have a vertical clearance of not less than _____ above the roof surface.

- (a.) 8
- (b.) 6
- (c.) 4
- (d.) 3

<c>9. Where single conductors #1/0 through 4/0 are installed in a ladder or ventilated trough cable tray they shall be installed in no more than _____.

- I. a depth of 4"
- II. a depth of 6"
- III. a single layer
- (a.) I only
- (b.) II only
- (c.) III only
- (d.) I or II only

10. Where flexible cords are permitted by the code to be permanently connected, it is permissible to omit _____ for such cords.

- (a.) switches
- (b.) receptacles
- (c.) grounding connections
- (d.) GFCI protection

<d>11. Listed or labeled equipment shall be installed, used, or both, in accordance with _____.

- (a.) the fob specified
- (b.) the plans
- (c.) the instructions given by the authority having jurisdiction
- (d.) the instructions included in the listing or labeling

<d>12. A grounding electrode connection that is encased in concrete or directly buried shall _____.

- (a.) be made accessible
- (b.) be made only by exothermic welding
- (c.) be a minimum #4 bare
- (d.) not be required to be accessible

<a>13. Wet niche or no niche lighting fixtures that are supplied by a flexible cord or cable shall all exposed noncurrent carrying metal parts grounded by an insulated copper equipment grounding conductor not smaller than the supply conductors and not smaller than ____.

- (a.) #16
- (b.) #18
- (c.) #14
- (d.) #12

<d>14. If laid in notches in wood studs, joists, rafters, or other wood members ____ shall be protected against nails or screws by a steel plate at least 1/16" thick.

- (a.) EMT
- (b.) rigid nonmetallic conduit
- (c.) intermediate steel conduit
- (d.) flexible conduit

15. A two pole circuit breaker that may be used for protecting a 3 phase corner grounded delta circuit shall be marked ____.

- (a.) 1 phase 120/240v
- (b.) 1 phase – 3 phase
- (c.) 1 phase/2phase/3phase
- (d.) 480Y/277v

<d>16. When installing a surge arrester at the service of less than 1000 volts, the grounding conductor shall be connected to ____.

- I. the grounded service conductor
- II. the grounding electrode conductor
- III. the grounding electrode for the service
- IV. the equipment grounding terminal in the service equipment
- (a.) I & II only
- (b.) I & III only
- (c.) III & IV only
- (d.) I, II, III or IV

<a>17. A means shall be provided in each metal box over 100 cubic inches for the connection of an equipment grounding conductor. The means shall be permitted to be ____.

- I. a tapped hole
- II. the cover screw
- III. a screw used to mount the box
- (a.) I only
- (b.) II only
- (c.) I & II only
- (d.) I, II or III

<d>18. a lighting fixture installed outdoors is permitted to be supported by ____.

- I trees
- II. a metal pole
- III. an outlet box
- (a.) I only
- (b.) II & III only
- (c.) II only
- (d.) I, II or III

19. The outer metal shell of a lamp holder shall be lined with insulating material that shall prevent more than ____, but shall prevent any current carrying part of the lamp base from being exposed when a lamp is in the lamp holding device.

- (a.) 1/16"
- (b.) 1/8"
- (c.) 1/4"
- (d.) 1/2"

<d>20. A ____ shall be used to connect the equipment grounding conductors, the service equipment enclosures, and where the system is grounded, the grounded service conductor to the grounding electrode.

- (a.) bus bar
- (b.) neutral conductor
- (c.) 5/8" ground rod
- (d.) grounding electrode cond.

<a>21. For equipment rated 1200 amperes or more 600 volts or less, and over 6 feet wide, containing overcurrent devices, switching devices, or control devices, there shall be one entrance not less than ____ inches wide and 6 1/2 feet high at each end.

- (a.) 24
- (b.) 30
- (c.) 36
- (d.) 48

<d>22. Appliances that have ____ that are to be connected by (1) permanent wiring method or (2) by field installed attachment plugs and cords with three or more wires (including the equipment grounding conductor) shall have means to identify the terminal for the grounded circuit conductor (if any).

I. screw shell lampholders

II. single pole overcurrent device in the line

III. single pole switch

(a.) I and II only

(c.) II and III only

(b.) I and II only

(d.) I, II and III

<c>23. Of the following, _____ box may be used for a floor receptacle.

(a.) a 4 11/6" x 1 1/4 square metal box with device ring listed for the purpose

(b.) a 3" x 2" x 2 1/2 " metal device box with device ring listed for the purpose

(c.) a box listed specifically for this application

(d.) any of these

<d>24. For one family dwelling, at least one receptacle outlet, in addition to any provided for laundry equipment, shall be installed in each _____.

I. basement

II. detached garage with electric power

III. attached garage

(a.) I only

(c.) I and III only

(b.) II only

(d.) I, II and III

<a>25. Where nonmetallic sheathed cable is used with boxes no larger than _____ mounted in walls or ceilings and where the cable is fastened within 8 inches of the box, securing the cable to the box shall not be required.

(a.) 2 1/4 x 4"

(c.) 2" x 4"

(b.) 2 1/2 " x 4"

(d.) 1 1/4" x 4"

<a>26. For swimming pool water heaters rated at more than _____ amperes that have specific instructions regarding bonding and grounding, only those parts designated to be bonded shall be bonded, and only those parts designated to be grounded shall be grounded.

(a.) 50

(c.) 30

(b.) 40

(d.) 20

<a>27. Where a fixture is recessed in fire resistant material in a building of fire resistant construction, a temperature not higher than _____ shall be considered acceptable if the fixture is plainly marked that it is listed for that service.

(a.) 150°C

(c.) 170°C

(b.) 165°C

(d.) none of these

<c>28. A manufactured assembly designed to support and energize lighting fixtures that are capable of being readily repositioned is _____.

(a.) ceiling grid lighting

(b.) electric discharge lighting

(c.) lighting track

(d.) open circuit lighting

<d>29. For AC adjustable voltage, variable torque drive motors, the ampacity of conductors, or ampere ratings of switches, circuit breakers or fused and ground fault protection shall be based on the operating current marked on the nameplate. If the current does not appear on the nameplate, the ampacity determination shall be based on _____ of the values in tables 430-149 and 430-150.

(a.) 80%

(c.) 125%

(b.) 100%

(d.) 150%

<c>30. Which of the following is a false statement?

(a.) An accessible plug and receptacle shall be permitted to serve as the disconnecting means for a cord and plug connected appliance

(b.) For a household electric range, a plug and receptacle connection at the rear base is acceptable as the disconnect if it is accessible from the front by removal of a drawer

(c.) A counter mounted cooking unit shall be connected by a permanent wiring method

(d.) A switch with a marked off position that is a part of an appliance and disconnects all ungrounded conductors is permitted in a dwelling if the circuit is protected by a circuit breaker

31. Where a transformer vault is constructed with other stories below it, the floor shall have a minimum fire resistance of 3 hours unless _____.

(a.) the floors in contact with the earth not less than 3" thick

(b.) protected with automatic sprinkle

(c.) constructed of fire rated wallboard

(d.) constructed of steel studs and fire rated wallboard

<a>32. A storage battery having the cells connected to operate at a voltage exceeding 250 volts but not over 600 volts, shall have insulation between groups and shall have minimum separation between live battery parts of opposite polarity of _____inche(s)

33. When calculating the conductor fill for strut-type channel raceway with internal joiners, the raceway shall be permitted to be filled to _____% of the cross-sectional area.

- (a.) 20 (c.) 30
- (b.) 25 (d.) 40

<d>34. Which of the following wiring methods may be used inside the duct used for vapor removal and ventilation of commercial type cooking equipment?

- (a.) nonmetallic sheathed cable
- (b.) EMT
- (c.) rigid steel conduit
- (d.) none of these

<d>35. Splices and taps shall be permitted in surface nonmetallic raceways having a removal cover that is accessible after installation. The conductors, including splices and taps, shall not fill the raceway to more than _____percent of its area at that point.

- (a.) 31 (c.) 53
- (b.) 40 (d.) 75

<c>36. Cabinets and cutout boxes shall be deep enough to allow the closing of the doors when _____ampere branch circuit panel board switches are in any position; when combination cutout switches are in any position; or when other single throw switches are opened as far as their construction will permit.

- (a.) 15 (c.) 30
- (b.) 20 (d.) 100

37. Underfloor flat-top raceways over 4 inches but not over 8 inches wide with a minimum of 1 inch spacing between raceways shall be covered with concrete to a depth of not less than _____.

- (a.) $\frac{3}{4}$ " (c.) $1\frac{1}{2}$ "
- (b.) 1" (d.) 2"

<d>38. Lighting fixtures located in the same room and not directly associated with a hydromassage bathrhub, shall be installed in accordance with the requirements covering the installation of that equipment in _____.

- (a.) swimming pool area
- (b.) kitchen
- (c.) exercise room
- (d.) bathroom

<d>39. The allowable fill for an $1\frac{1}{4}$ inch rigid schedule 40 PVC with more than 2 conductors is _____ sq. inch.

- (a.) 0.794 (c.) 0.495
- (b.) 0.333 (d.) 0.581

<d>40. Induction coils shall be prevented from inducing circulating currents in surrounding metallic equipment, supports, or structures by _____.

- | | | |
|--------------|--------------------|-------------------------------------|
| I. isolation | II. Shielding | III.insulation of the current paths |
| (a.) I only | (c.) III only | |
| (b.) II only | (d.) I, II and III | |

41. At least one receptacle shall be located a minimum of 5 feet from and not more than _____feet from the inside wall of a spa or hot tub installed indoors.

- (a.) 6 (c.) 12
- (b.) 10 (d.) 20

<d>42. An electronically actuated fuse generally consists of all of the following EXCEPT _____?

- (a.) a control module that provides current sensing
- (b.) electronically derived time-current characteristics
- (c.) an interrupting module that interrupts current when an overcurrent through it
- (d.) a thermally sensitive part that is heated and severed by passage of overcurrent through it

<d>43. An underground pull box used for circuits of over 600 volts shall have the cover locked, bolted or screwed on, or the cover is required to weigh over _____pounds.

- (a.) 25 (c.) 75
- (b.) 50 (d.) 100

<c>44. Given: On a circuit where a grounding means does not exist, a non-grounding-type receptacle is replaced with a ground-fault circuit-interrupter-type receptacle which supplies no other receptacles. This new GFCI receptacle shall be marked _____.

- (a.) "Not Grounded" (b.) "GFCI Protected"
- (c.) "No Equipment Grounded" (d.) "No Grounded Conductor"

<a>45. Ground-fault circuit-interrupter (GFCI) protection is required in all of the following locations EXCEPT _____.

- (a.) kitchen receptacles in an office building lunchroom installed within 6' of the sink
- (b.) kitchen receptacles in a dwelling installed to serve counter top surfaces 10' away from the sink
- (c.) receptacles in an office building restroom which has only a basin and toilet
- (d.) receptacle provided for servicing a rooftop air conditioning unit on the roof of a warehouse

<a>46. For dwelling units, all of the following are true EXCEPT _____.

- (a.) outdoor outlets are permitted to be supplied through the small appliance branch circuits
- (b.) the outlet for kitchen refrigeration equipment may be supplied by an individual 15 amp branch circuit
- (c.) bathroom receptacles shall be supplied by a 20 ampere branch circuit which shall have no other outlets
- (d.) the clothes washer shall be supplied by a 20 ampere branch circuit and outlets outside the laundry area are NOT permitted on this circuit

<d>47. In a recreational vehicle park, tent sites equipped with only 20 ampere supply facilities shall be calculated on the basis of _____per site.

- (a.) 180 va (c.) 360 va
- (b.) 300 va (d.) 600 va

48. Where GFCI protection is located in the power supply cord for an outdoor portable sign, the ground-fault circuit interrupter shall be located within _____inches of the attachment plug.

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

<c>49. Given: A fixed electric space heater without a motor is installed in a multifamily dwelling. The heater has no supplementary overcurrent protection.

The heater is controlled with a thermostat which does not have a marked "of" position. The branch circuit switch or circuit breaker is not "within sight from" the heater. For the branch circuit switch or circuit breaker to be permitted to serve as the disconnecting means for the heater, the switch or breaker must ____.

- (a.) Be readily accessible
- (b.) not control lamps or other appliances
- (c.) be capable of being locked in the open position
- (d.) be located within the dwelling unit or on the same floor as the heater

50. Given: A metal underground water pipe is used as a grounding electrode and used to bond other electrodes together. The grounding electrode conductor is connected to the water pipe on the interior of the building. The connection of the grounding electrode conductor to the interior water pipe shall be made a maximum of _____feet from the point where the water pipe enters the building.

- (a.) 3 (b.) 5
- (c.) 8 (d.) 10