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Chapter Review Questions

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Chapter 5:

1. The identified grounded circuit conductor must be white or gray in color.
2. Explain how lighting switches are rated. The amp rating of a Carling switch is the maximum current in amperes the switch will carry continuously. So, in the example below the maximum amp rating for this switch at 250 volts AC (VAC) is 10 amps; the maximum amp rating at 125 volts AC for the same switch is 15 amps.
3. A t- Rated switch may be used to its Rated current capacity when controlling an indecent light.
4. What switch and rating is required to control five 300-watt tungsten filament lamps on a 120- volt circuit?
   a. Watts = Volts x Current
   b. 5 x 300 = 1500 = 120 x Amps
   c. Amps = 1500 / 120 = 12.5 amps
   d. Just install a standard wall switch rated at least 15 amps at 120 VAC. All lights are in parallel and fed from a single switch.
5. List four types of lighting switches.
   a. Push Button Light Switch. ...
   b. Toggle Light Switch. ...
   c. Selector Light Switch. ...
   d. Proximity Switch.
6. To control a lighting load from one control point what type of switch would be used? A Single pole
7. Single pole switches are always connected to the hot wire.
8. 1st line goes to the top of the first lamp then run the neutral to the top of the other lamp. Basically put all your neutrals in series. Then take your hot wires and put them together, finnish by putting the red wire on the bottom or the gold screw of the lamp.
9. Put all your neutrals in series and pigtail them. Then connect them to the lamp and then pigtail the neutral wire by itself in the switch. Take your hot wire and and pigtail them together. Then put the hot wire on the bottom of the switch. Take the red wire attach it to the lamp and them send it to the switch.

10. A three -way switch may be compared to a three phase inverter switch.
11. 3 way switch. And 2 switches are needed.
12. Put your neutrals in series, then connect it to the lamp. Take your hot wire to the first switch. Put the red wire on the first terminal of the first switch. Then take the other end and put it on the 2nd terminal of the 2nd switch. Take the hot wire and attach it to the 2nd terminal on the first switch, and take the other end to the 2nd terminal on the second switch. Then take to hot and connect it to the light.
13. Correct Terminals
14. Put all your neutrals in series and connect it to the light. Then take your hot to the hot terminal on the first 3 way switch. On the first switch take the 1st terminal on the first switch and to the bottom second terminal on the 4 way switch. Take the red wire and connect it to the 2nd terminal on the first switch and to the bottom first terminal on the 4 way switch. Take your black wire from your 4 way black terminal to the 2nd terminal on the 3rd. 3 way switch. Then take your common to the light.
15. Single pole has 2 terminals, Three way has 3 terminals and 4 wya has 4 terminals.
16. Right
17. Article 210
18. B type installation
19. Not always.
20. By the grounding wire on the switch, to the side of the box, or to the back of the box.
21. Yes so long as they are both ground wires and not the hots.
22. Two reds spliced to one connection of a hot.
23. You use an equipment-grounding conductor (EGC) to ground the noncurrent-carrying metal parts of equipment. Its function is to keep your equipment as close as possible to ground potential and provide a safe path for ground-fault current to flow.
24. The switch is mounted with metal screws to a metal box or metal cover that is connected to an equipment grounding conductor or to a nonmetallic box.
25. No
26. Yes
27. Yes but they are not commonly used