

1. The ungrounded conductor can be identified by the color:
 - a. White or Gray
 - b. Green or Bare
 - c. Pink Flamingo
 - d. None of These
2. The advantage of cutting a metal rigid conduit with a hacksaw rather than a pipe cutter is:
 - a. You do not need a vice
 - b. Less energy is required in cutting
 - c. Less reaming is required
 - d. Threading oil is not required
3. To mark a point on the floor directly beneath a point on the ceiling, it is best to use a:
 - a. Transit rod
 - b. Plumb bob
 - c. Square
 - d. 12" Tape
4. What is meant by "Traveler Wires"?
 - a. Wiring to a split receptacle
 - b. Two wires between 3-Way switches
 - c. Wiring to a doorbell
 - d. Out of State Electrician
5. The neutral conductor shall not be:
 - a. Stranded
 - b. Solid
 - c. Insulated
 - d. Fused
6. To control a ceiling light from five different locations it requires which of the following:
 - a. Four 3-Way switches and One 4-Way switch
 - b. Three 4-Way switches and Two 3-Way switches
 - c. Three 3-Way switches and Two 4-Way switches
 - d. Four 4-Way switches and One 3-Way switch
7. The code requires which of the following colors for the equipment grounding conductor?
 - a. White or Gray
 - b. Green or Green with Yellow stripes
 - c. Yellow
 - d. Blue with a Yellow Stripe

8. The best tool to cut PVC conduit within a tight area is:
 - a. A short hacksaw
 - b. A nylon string
 - c. A knife
 - d. A pipe cutter
9. A wrench you would not use to connect rigid conduit is a:
 - a. Box end
 - b. Chain wrench
 - c. Strap wrench
 - d. Stillson wrench
10. Which of the following hacksaw blades should be used for the best results in cutting EMT?
 - a. 12 Teeth per inch
 - b. 18 Teeth per inch
 - c. 24 Teeth per inch
 - d. 32 Teeth per inch
11. The letters DPDT are used to identify a type of:
 - a. Insulation
 - b. Fuse
 - c. Motor
 - d. Switch
12. When cutting holes in masonry which of the following tools is most commonly used?
 - a. Auger bit
 - b. Router bit
 - c. Star drill
 - d. Reamer
13. The least desirable device for measuring an electrical cabinet containing live equipment is a:
 - a. 6' Wooden ruler
 - b. Plastic ruler
 - c. Wood yard stick
 - d. 12' Steel tape
14. The name of the tool commonly used for bending small size conduit is a:
 - a. Growler
 - b. Mandrel
 - c. Hickey
 - d. Henry

15. To support raceways on a hollow tile wall, you would use:
- a. Expansion bolts
 - b. Wood screws
 - c. Toggle bolts
 - d. Rowl plugs
16. What size conduit is required for eight #6 TW conductors?
- a. 1"
 - b. 1-1/4"
 - c. 1-1/2"
 - d. 2"
17. The code assigned the color _____ to the high-leg of a 4-Wire delta connected secondary:
- a. Black
 - b. Red with a green tracer
 - c. Orange
 - d. Pango Pink
18. The minimum size of a copper equipment grounding conductor required for equipment connected to a 40 Amp circuit is:
- a. #8
 - b. #10
 - c. #12
 - d. #14
19. Ampacity of fixture wire is determined by table:
- a. Table 250-3
 - b. Table 310-16
 - c. Table 402-3
 - d. None of these
20. In general, switches shall be so wired that all switching is done in the _____ conductor:
- a. Grounded
 - b. Ungrounded
 - c. Both A and B
 - d. Neither A nor B


Match the following words with their definitions

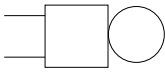
- | | |
|-------------|------------------|
| A. Ohm | E. Watt |
| B. Diameter | F. Circumference |
| C. Volt | G. Radius |
| D. Ampere | H. Resistance |

- | | | |
|-------|----|--|
| _____ | 1. | The distance across a circle through the center. |
| _____ | 2. | The distance from the center to the edge of a circle. |
| _____ | 3. | The distance around a circle. |
| _____ | 4. | The practical unit of electric pressure. The pressure which will produce a current of one ampere against a resistance of one ohm. |
| _____ | 5. | The practical unit of electric current flow. |
| _____ | 6. | The practical unit of electrical resistance. |
| _____ | 7. | The opposition offered by a substance or body to the passage through it of an electric current which converts electric energy into heat. |
| _____ | 8. | The practical unit of power. |

Match the symbol with the description

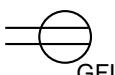
A.  _____


B.  _____

C.  _____

D. S_P _____


E. Ω _____

F.  _____

G.  _____

H. I _____

I. $\$$ _____

J.  _____


K. E _____

L. F _____

M. R _____

N.  _____

O. P _____

P.  _____

Q.  _____

R. S_{WP} _____

Weatherproof Switch _____

Ceiling Outlet/Light _____

Duplex Receptacle _____

Clock _____

Ground Connection _____

Single-Pole Switch _____

Bell _____

Tele/Data Outlet _____

Fire Alarm Pull Station _____

Switch with Pilot Light _____

Ground Fault Duplex Receptacle _____

Battery _____

Motor Connection _____

Volt _____

Ampere _____

Ohm _____

Resistance _____

Power _____

Draw a circuit using 3-way and 4-way switches

If done electronically, write in your own words how to



(N)
(H)



Match the symbol with the description



1. _____



6. _____



11. _____



16. _____



22. _____



2. _____



7. _____



13. _____



18. _____



23. _____



3. _____



8. _____



14. _____



19. _____



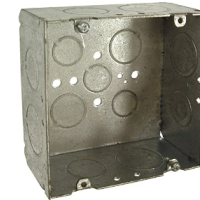
24. _____



4. _____



10. _____



15. _____



20. _____



25. _____



5. _____



9. _____



12. _____



17. _____



21. _____

A. EMT Setscrew Coupling

B. 4" Octagon Box

C. LB Condulet

D. 4 11/16 Sq. Outlet Box

E. Tube Cutter

F. EMT Conduit Bender

G. Hacksaw

H. Two-Gang Plaster Ring

I. Ratchet Pipe Threader

J. 4" Sq. Extension Ring

K. C Condulet

L. Rigid Conduit Bender

M. Hand Knockout Punch

N. Fish Tape

O. Phillips Screwdriver

P. EMT Setscrew Connector

Q. Side Cutters

R. Two-Gang Duplex R.S. Cover

S. Rigid Conduit Reamer

T. Service Weatherhead

U. Chain Vise

V. Straight Blade Screwdriver

W. Wire Stripper

X. 4" Sq. Round Plaster Ring

Y. 4" Octagon Blank Cover