Unit 11 Electrical Wiring Commercial

Rigid Metal Conduit

1. What are the two main types of rigid metal conduit? **Steel and aluminum**

2. Does the CEC permit the use of threadless fittings for rigid metal conduit? **Yes in some instances**

3. What is the problem with a running thread on rigid metal conduit? **Will butt together without being tight in the fitting**

4. What is the maximum distance between supports for trade size 35 rigid metal conduits? **2 m**

5. What are three types of fittings for EMT? **Set screw, compression, and indenter**

6. Which connector for EMT is considered raintight? **Compression**

7. What are the main types of bends for EMT conduit? **Stub, back-to-back, and angle or kick**

8. What is the maximum distance for Trade size 12 flexible metal conduit when connecting equipment? **1.5 m**

9. Liquidtight flexible conduit does not require a bonding conductor. **True or False**

10. Where in a residential construction would rigid PVC conduit be prohibited? **Exposed to physical damage or enclosed in thermal insulation**

11. What is the proper procedure for gluing PVC conduit after applying the solvent cement and inserting the conduit into the fitting? **Twist a quarter turn**

12. Is Electrical Non-metallic Tubing permitted for outdoor use? **No**

13. Is Electrical Non-metallic Tubing permitted for exposed applications? **Yes (12-1500)**

14. What size conduit is required for 4-No. 1 AWG, T90 Nylon conductors? **41**

15. What size conduit is required for 6-No. 3/0 T90 Nylon conductors? **63**

16. What size conduit is required for 3-No. 6 T90 Nylon and 3-No. 10 R90 XLPE conductors? (600V no jacket) **27**
17. What size conduit is required for 4-No. 1 T90 Nylon and 3-No. 3 R90 XLPE conductors? (600V no jacket) **53**

18. On a jobsite, who typically determines the outlet box size? **Electrician**

19. What are the standard depths (inches) for device boxes? **1 ½” to 3 ½” in**

20. What are the standard depths (inches) for octagon boxes? **1 ½” and 2 1/8”**

21. What are the main uses for 4 11/16” square boxes? **Range and dryer outlets and JB**

22. How many No. 12 conductors are permitted in a 4 11/16” x 2 1/8” square box? **24**

23. How many No. 10 conductors are permitted in a 4” x 2 1/8” octagon box? **9**

24. How many No. 12 conductors are permitted in a 4 11/16” x 2 1/8” square box with a fixture stud and 6 wire connectors? **20**

25. How many No. 10 conductors are permitted in a 4” x 2 1/8” octagon box with 4 wire connectors? **7**

26. What is the minimum size square box for 6-No. 10 conductors, 4-No. 14 conductors and 5 wire connectors? **4 x 2 1/8”**

27. What is the minimum size octagon box for 8-No.14 conductors, 4 wire connectors, and a fixture stud? **4 x 2 1/8” (8+2+1 conductors)**

28. What is the minimum size device box that will allow 4-No. 12 conductors, a flush device mounted on a strap, and 3 wire connectors? **3x2x2 ½”**

29. When is a bonding conductor counted for box fill? **When it is insulated**

30. What is the rule regarding plaster rings and extra space for box fill? **Has to be marked with volume**

31. What is the minimum distance between the wall of a junction box where 3-Trade size 53 conduits enter and the opposite wall for a straight through pull? **424 mm**
32. What is the minimum distance between the wall of a junction box where 4-Trade size 53 conduits enter and the opposite wall for an angle pull? 477 mm

33. What is the minimum distance between the edges of corresponding conduits for an angle pull at a junction box? 6 x diameter