

CODE QUESTIONS SHEET #7

1. What is the object of grounding?
2. Must all metal boxes be bonded when using NMSC?
3. What is the minimum size of bonding conductor allowed?
4. What may be used as a bonding conductor?
5. Where must joints and splices for bonding conductors be made?
6. Define a bonding conductor.
7. Define a grounding conductor.
8. What is the colour of an insulated bonding conductor? Uninsulated bonding conductor?
9. Is it permissible to use the identified conductor for the branch circuit for bonding purposes?
10. An outlet box contains one bonding screw. There are three bonding conductors present in the box. How must the bonding connection be made?
11. How is the bonding conductor size for equipment determined?
12. May the mounting screws of a duplex receptacle mounted on a metallic outlet box be used as the bonding conductor?
13. A 50 A overcurrent device protects the conductors of an electrical installation. What minimum size of copper bonding conductor would be required?
14. Is it acceptable practice to install a circuit bonding conductor on the outside of a raceway which contains the branch circuit conductors?
15. Which conductor of a single-phase, three-wire, 120/240 volt system must be grounded at the service?
16. Can solder be used when connecting circuit and equipment bonding conductors?
17. Is the metal armour of armoured cable considered as a bonding conductor?
18. May the bonding conductor be spliced in an outlet box by terminating under screws in the box?
19. May a # 1 bare copper bonding conductor for three 1C RA90 xlpe single conductors be installed directly on the surface along with the RA90 and not be provided with mechanical protection?
20. Do tools and appliances with a "double insulation" rating required bonding conductors?

21. Why must the bonding circuit be made electrically and mechanically secure?
22. Is it an acceptable wiring method and practice to connect the bonding conductor to a mounting screw for a receptacle of an outlet box?
23. Is it permissible to install a 25 m long bare copper bonding conductor in the same raceway with the other insulated circuit conductors?
24. What must be done to the painted surface of an enclosure before attaching a bonding conductor to it?
25. Must metallic equipment supplied with NMD90 be bonded?
26. Must portable metallic equipment be bonded?
27. Is the bare bonding conductor considered when calculating box fill?
28. How must the bonding conductor be connected to equipment?
29. Must galvanic action be considered when connecting two dissimilar metals together for bonding purposes?
30. Must a metal water piping system installed in a building be connected to the electrical system if not used as the grounding electrode? If this is the case, what size of conductor is required?
31. A 150 A 2P molded case circuit breaker is connected to a load. What is the minimum size of bonding conductor?
32. How must a receptacle be connected to a branch circuit bonding conductor and the outlet box?
33. What size of bonding conductor must be installed between the electrical service and the swimming pool?
34. How much spacing is required between lightning rod conductors and electrical conductors?
35. An outlet box is supplied with two bonding screws in the back of the box. If there are six bonding conductors present, describe the procedure to terminate these bare bonding conductors in this outlet box.