1. What are the four most common types of screwdrivers? Robertson, Philips, Blade, and torx
2. Why do electricians typically prefer straight claws on a hammer? Better for lifting floor boards
3. Hammers with a chipped head should be “dressed” on a grinder. True or False?
4. What maintenance is typically required on a pair of pliers? Occasional drop of oil on the hinge
5. Should pliers be used as a hammer? No (But they are)
6. What are the three types of handles for pliers? Cushion grip, insulated and bare
7. What is another name for a hex key wrench? Allen wrench or key
8. What is the correct direction of force for an adjustable wrench? Pressure on the fixed jaw pulling forward
9. What type of wrench should not be used on nuts and bolts? Pipe wrench
10. What are the two types of hand saws and what is the purpose of each? Rip-for cutting with the grain and Crosscut for cutting across the grain
11. What is a compass saw? What is it typically used for? Saw for cutting circles or straight cuts used for cutting boxes in drywall or panelboard
12. What is the length of a standard hacksaw blade? 300mm (12”)
13. What is the range of teeth-per-inch for a hacksaw blade? 14-32
14. Which direction should the teeth point in a properly installed hacksaw blade? Forward (Away from you)
15. What are the main parts of a file? Describe each. Tang- where the handle fastens, Heel-has no teeth but may be stamped with information, and Face-where the teeth are cut
16. List some of the different file types. Mill, flat, round, square, half-round, pillar, knife edge, three-cornered, crossing, and cabinet
17. What is a “safe edge” file? Smooth edges (No teeth)
18. How would you determine the correct size drill bit to use for a tap? Pick from a chart

19. How are the chips broken away periodically when using a cutting die? Reverse a quarter turn periodically

20. What precaution must be taken when using a metal measuring tape? No contact with live electrical parts

21. What are two liquids used for bubbles in levels? Alcohol or chloroform

22. What precaution must be taken before using a fuse puller to remove a fuse? Remove load by opening switch

23. What material is used (mainly) for chisels and punches? Tool steel (80% carbon)

24. What are some of the different types of chisels? Cape, round-nose, diamond-point, and flat

25. A chisel or punch with a mushroomed end should be discarded. True or False?

26. Is a steel hammer good for light chisel work? No (Use wooden hammer or mallet)

27. What precaution should be taken when using cable cutters? (Other than make sure power is off) Use only on softer metals (No steel)

28. What is the difference between a cable bender and pipe bender for bending wire? Pipe bender will damage the insulation

29. What are some rules for stripping wire with a knife? Cut away from the body and don’t use too large knife

30. What size hole is cut by a ½” knockout punch? 7/8”

31. What are the three parts of a knockout punch? Die, punch, and drive screw

32. Wires being cut with a cutter should be cut diagonally. True or False?

33. Left and Right cut snips are for cutting in the respective direction only. True or False?

34. What misuse of snips will cause a springing of the blades? Trying to cut metal that is too thick or hard

35. What are some different types of clamps? C-clamps, bar clamps, pipe clamps, and hand screws
36. What are some misuses of “C” clamps? Hold scaffolds or staging

**Power Tools**

1. How should you determine the duty for purchasing a drill? **Determine the type of work to be done**

2. What is the result of not keeping a power tool clean? **Overheating**

3. What are some different types of wood bits? Spade, paddle, auger, multi-spur, expansion, hole-saw, and ship auger

4. What is the purpose of a carbide-tipped bit? **Drilling in concrete**

5. What is a HSS bit? What is one limitation? **Bit designed for higher speeds and temperatures. Brittle and will break with too much pressure**

6. What is the difference between a percussion and rotary hammer drill? **Rotary can drill**

7. What are the two purposes of cutting oil? What is not a function of cutting oil? **Cool and reduce friction. Cutting oil should not be used for lubrication**

8. What are some features of a drill press compared to a drill? **More torque, moveable work table, more precise**

9. What are some precautions for using a drill press? **No loose clothing or hair, clamp work, don’t use hands to brush chips away, remove the key before starting, and stop before making adjustments**

10. What are some advantages of hydraulic knockout punches? **Require less effort than manual punches, more accurate and easier to use than a hole saw**

11. What are the main parts of hydraulic knockout punches? **Pump, ram, hose, and punch and die set**

12. What is the advantage of motorized hydraulic knockout punches? **Less effort (no manual pumping)**

13. When should the extra handle be used with a drill? **Larger work or continuous operation**

14. What should be done just before a bit breaks through a surface? Why? **Ease up on the pressure to prevent splitting or jamming**
15. What is the proper procedure for drilling a large hole in metal with a HSS drill? 
   Drill a smaller “pilot” hole first

16. What is the reason for not using a hole saw without the centre pilot drill installed? 
   Will wander and not start where you want it

17. How are circular saws sized? Maximum diameter blade

18. What is the most common application (for an electrician) for a saber saw or jig saw? 
   Cutting outlet boxes into a wooden wall

19. What are some applications for an electrician to use a hole saw? 
   Cut octagon boxes into siding wood or plaster, installing dryer vents, and cutting holes for pipes

20. How many teeth-per-inch are used with reciprocal and saber saws for cutting most types of wood? 4 teeth/cm

21. When cutting with a reciprocal or saber saw, the blade should be placed against the wood before starting the saw. True or False?

22. How are grinders sized? Wheel size

23. How is a grinder manufactured to prevent the wheels loosening? Left hand threads on left shaft and right hand thread on right shaft

24. What precautions should be taken when starting a grinder? Inspect for cracks or damage and stand to one side

25. What is the speed of portable hand grinders? 10,000 rpm

26. What PPE is most critical when using a grinder? Eye protection

27. What two steps should be taken before working on an air fastener? Disconnect from air supply and ensure all air is exhausted from the tool by depressing trigger

28. Which end of a quick-connect should be attached to the tool? Male