Module 7 Unit 1

1. What are the three major categories of workplace hazards? Mechanical, electrical, fire and explosive.

2. How should heavy motors, transformers, and generators be moved? Use mechanical devices (rollers, skids, etc.).

3. Many electric machines have “feet”. How should they be moved using rollers? Bolt to strong battens.

4. How much electric current is required to be fatal? 15-50mA.

5. What is the purpose of having a neutral wire connected to ground? Limit voltage to ground and provide a means to trip circuit breaker or blow fuse.

6. What factors affect the resistance of the human body? Open wounds or cuts, standing on a wet floor, insulated boots or shoes, amount of contact area with the wire, and the amount of moisture on the hand or contact area.

7. What is a “double-insulated” tool? Electrical parts are provided with extra insulation to prevent electric shock.

8. What factors affect the severity of electric shock? Amount of current flow, path the current takes through the body, type of voltage (AC or DC), value of the voltage, length of time the body is in contact and area of contact.

9. What are some hazardous locations electricians may be required to work in? Battery charging rooms, gasoline dispensing areas, bulk storage plants, garages and spray booths.

10. What type of fire extinguisher should be used for a fire in an electrical panel? Class C.

11. What type of fire extinguisher should be used for a gasoline fire? Class B.

12. What material is used in the construction of hard hats? High-density polyethylene.

13. Which class of hard hat is approved for electrical work? Class B.

14. What are three types of breathing protection? Gas mask, Respirator, and Disposable.
15. What are some of the tasks which require the use of safety glasses? Working on live electrical equipment, using pliers to cut material, and using an electric hand drill

16. What are some of the tasks which require the use of a face shield? Using a grinder, drill press, compressed air for cleaning or filling batteries

17. What effects, other than damage to hearing, are the result of high levels of noise? Easily annoyed, irritable, mentally fatigued, decreased concentration and alertness

18. What type of gloves should be worn when handling acids and cleaning solutions? Rubber or approved plastic-treated

19. When should rubber electrical gloves be checked for pinholes and damage? Before use each time

20. What are the three most common foot hazards? Heavy objects falling on them, stepping on sharp objects, flying hot sparks or slag

21. What are some of the most important pieces of shop safety equipment? Fire control equipment, first aid kits, eye wash stations, emergency telephone, ventilation systems, emergency shutdown systems

22. When are eye wash stations required at a work site? Whenever workers may be exposed to corrosive liquids or other chemicals harmful to the eyes or skin

23. Employers are responsible for the installation of proper safety equipment and what else? To provide the training for employees

24. According to the CEC, what voltages are considered low voltage? 31-750V

25. According to the CEC, what voltages are considered extra low voltage? Below 31V

26. What two factors determine the magnitude of a short circuit? Capacity of the electrical system and the impedance of the supply transformer

27. Why is cotton the best clothing material for electricians? Reduced chance of fire hazard

28. Why should you remove jewelry before working inside an electrical panel? Could cause a short circuit

29. What type of plug should be used for tools operated outside? GFCI
30. What is the main difference between working on low voltage circuits and high voltage circuits? No physical contact is required as the voltage can jump across an air gap.

31. What is the minimum limit of approach for up to 75,000 volts? 3m

32. What is “Step voltage”? Voltage between your two feet

33. How far from a high-voltage cable is “step-voltage” still a problem? 10m

34. When is a lockout hasp required? More than one lock to be placed on the switch