Module 7 Unit 3

1. What are the main advantages of a single-phase three-wire circuit? Two voltages, improved safety (Grounded neutral), and reduced copper (25%) 

2. Where are the wires from the meter base connected in the main switch? (How is it marked?) On top marked “Line” 

3. How is a combination panelboard different from a panelboard? Combination has a main switch as part of the unit 

4. What are the two reasons for grounding the neutral conductor in a three-wire system? Limit shock hazard (120V) and provide a path for opening the circuit should a fault or short occur 

5. Where does the supply authority’s responsibility end and the consumers begin in a service installation? Point of attachment 

6. What is the typical height for mounting a meter base? 1.5 – 1.8 m above grade to center 

7. What is the minimum distance that must be maintained between a roof and the point of attachment to a mast? 915 mm 

8. What is the minimum number of mast supports that must be installed? 3 

9. What is the maximum span between two supports according to the CEC? 38 m 

10. What is the minimum diameter for a well casing to be used as a grounding electrode? 75 mm 

11. What is a Ufer ground? Concrete encased electrode 

12. What is the minimum thickness for a plate electrode? 6 mm 

13. What is the minimum diameter for a rod electrode? 15.8 mm 

14. What are the two main types of outlets? Lighting and receptacle 

15. What are outlet boxes made from? Galvanized or plated steel 

16. How deep is a pancake box? ½” 

17. What is the depth range for a masonry octagon box? 1 ½”-6”
18. What is the main difference between a box clamp for AC and one for NMSC? Shaped different to hold cable without damage (See diagram)

19. What are the main advantages of electric heat compared to oil? Versatile, safe, quiet, clean, and less maintenance

20. What are two methods of marking a conductor unidentifiable? Paint or tape

21. What size element is typically used in a water heater? 3000 W 240 V

22. What size outlet box is used with a dryer receptacle? 4 11/16” Square

23. What is the maximum height above the floor for a range receptacle? 130 mm

24. Is PVC conduit permitted to be installed in thermal insulation? No (Heating issues)

25. What are the two names for armoured cable with a PVC jacket? Teck or ACWU