Code Questions for Three-phase Service

1. When is a load over 225A not considered continuous for calculating the demand for a consumer’s service?

2. What is the demand wattage for show window lighting 8 M long?

3. What percentage of the basement area is considered “living area” when calculating the demand for a consumer’s service?

4. What percentage of the motor FLA is used to determine the conductor size for a motor with an intermittent duty and 15 minute rating?

5. Panel boards must be protected by overcurrent devices set at not more than the rating of the panel board unless a certain percentage of the load consists of motors. What is that percentage?

6. What color is used for the phase “B” conductor in a three-phase system according to the CEC?

7. A No.1/0 grounding or bonding conductor must be green or green with a yellow stripe throughout its entire length. True or false?

8. When is a ground detection system required according to the CEC?

9. What is the demand wattage for a branch circuit supplying a 14 kW range?

10. What two requirements must be met when a ground detection system is installed on an ungrounded system?

11. What is the maximum number of consumer services (same voltage and characteristics) terminated at one supply service?

12. Instrument transformers on switchboards do not need to have the secondary grounded if they are connected to circuits of less than 300V to ground. True or false?

13. Where does the CEC require service entrance equipment be installed?

14. What is the maximum size service entrance where current transformers are not required?

15. What is the minimum height above the peak or highest point of a roof for conductors run aerially?
16. What is the distance of expansion for a length of PVC conduit 30 m long installed where temperatures range between -35\(^0\) and 38\(^0\)C?

17. What is the minimum size copper bonding conductor for instrument transformers?

18. What is the minimum number of branch circuit positions for a 200A service where provision is made for a central electric heating system?

19. What is the minimum number of branch circuit positions for an apartment where the required ampacity of the feeder conductors exceeds 60 A?

20. What is the demand wattage for the first 30 automobile spaces or stalls when the branch circuit loading is restricted or controlled?

21. What is the minimum size conductor required for a 3% voltage drop if the load is 125A/240V and the distance is 30M?