

Name: \_\_\_\_\_

## ESS34 3 Phase Quiz

### Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. Residential systems in the United States are typically  
a. 120/208V 60Hz 2 phase b. 120/240V 60Hz 1 phase c. 120/240V 50Hz 2 phase d. 120/208V 50Hz 1 phase
- \_\_\_\_\_ 2. A step up transformer has 480V and 10A in the primary coil. What is the output of the secondary coil?  
a. 960V b. 20A c. 240V d. 1,000 coil turns
- \_\_\_\_\_ 3. During a site inspection you find a load center labeled 120/240V. How many phases are in this system?  
a. 1 b. 2 c. 3 d. 4
- \_\_\_\_\_ 4. During a site inspection you find a 120V WYE 3 phase load center with four different color conductor feeds: black, blue, red, and white. What is the expected voltage across the black and blue conductors?  
a. 120V b. 208V c. 240V d. 360V
- \_\_\_\_\_ 5. During a site inspection you find a 277V WYE 3 phase load center with four different color conductor feeds: black, blue, red, and white. What is the expected voltage across the black and white conductors?  
a. 277V b. 208V c. 240V d. 480V
- \_\_\_\_\_ 6. During a site inspection you find a 240V DELTA 3 phase load center with four different color conductor feeds: black, blue, red, and white. What is the expected voltage across the black and blue conductors?  
a. 120V b. 208V c. 240V d. 360V
- \_\_\_\_\_ 7. During a site inspection you find a 240V DELTA 3 phase load center with four different color conductor feeds: black, blue, red, and white. What is the expected voltage across the black and white conductors if you find 120V across the red and white and 120V across the blue and white conductors?  
a. 120V b. 208V c. 240V d. 277V
- \_\_\_\_\_ 8. During a site inspection you find a 3 phase load center with three different color conductor feeds: black, blue, and red. You measure 240V across any two feeds. What type of configuration must the system be?  
a. 240V WYE grounded b. 120/240V split phase grounded c. 240V Delta grounded d. 240V Delta ungrounded
- \_\_\_\_\_ 9. During a site inspection you find a 3 phase WYE load center. You measure 240V across the Line 1 to neutral. What is the expected voltage across Line 1 and Line 2?  
a. 240V b. 208V c. 416V d. 480V
- \_\_\_\_\_ 10. What is the phase angle between each phase in a 3-phase system?  
a. 0 degree b. 90 degree c. 180 degree d. 120 degree