Pretest Module 25 Unit 1&3 ELEA1834

Unit 1
1. What is the relationship between the current and voltage waveforms in a resistive circuit? In Phase

2. What type of power is produced when current and voltage are in-phase with each other? True Power in Watts

3. What is the most common AC frequency? 60 hz (cycles per second)

4. Is the power waveform considered positive and negative, similar to the current and voltage waveforms? No it is always positive.

5. What is the meaning of the term “out of phase”? Voltage and Current reach their peak and 0 values at different times.

6. What does it mean for the current to lead the voltage? Current will reach peak and 0 before the voltage wave does.

7. What does it mean for the current to lag the voltage? Current will reach peak and 0 after the voltage wave does.

8. Where are square and sawtooth waveforms found? Electronic Circuits.

9. What are harmonics? What are the typical frequencies of harmonics? Multiples of the standard wave frequency that distort the sine wave. (120,180,240, etc.)

10. What does it mean when the current and voltage phasors are pointing in the same direction? In Phase

11. When can Ohm’s law be applied in a circuit to find values? In Phase.

12. When a meter is used to measure voltage drop across a load, why is the reading not an accurate measurement? (Especially with a high resistance load) The meter offers another path for current disrupting the circuit values.
13. What can be stated about the current in a series circuit? **Same throughout**

14. What can be stated about the voltage in a series circuit? **Sum of individual voltage drops is total voltage applied. (Less losses)**

15. What is the main advantage of a single-phase, three-wire AC system? **Reduced wire and two voltages.**

16. What is the best way to solve combination (series-parallel) circuits? **Solve individual parts first. (Series or Parallel)**

17. How much current flows on the neutral wire in a three-wire circuit if phase A carries 12 amps and phase B carries 12 amps? **0 amps**