

## EET1033 H-6 Hialeah June 2018

### Multiple Choice

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

- \_\_\_\_ 1. The current-limiting property of the inductor is called \_\_\_\_.
- a. reactance
  - b. voltage
  - c. resistance
  - d. capacitance
- \_\_\_\_ 2. Reactance is symbolized by the letter \_\_\_\_.
- a. R
  - b. L
  - c. X
  - d. Z
- \_\_\_\_ 3. Inductive reactance can be computed when the values of inductance and frequency are known and is measured in \_\_\_\_.
- a. watts
  - b. ohms
  - c. vectors
  - d. amperage
- \_\_\_\_ 4. If two inductors, with values of 2 H and 3 H, are connected in parallel, the total inductance would equal \_\_\_\_ H.
- a. 2
  - b. 1.2
  - c. 1
  - d. .83
- \_\_\_\_ 5. In a pure inductive circuit, the current lags the voltage by \_\_\_\_ degrees.
- a. 270
  - b. 180
  - c. 90
  - d. 0
- \_\_\_\_ 6. Although essentially no true power is being used, an electrical instrument called VARs is used to measure the \_\_\_\_ in a pure inductive circuit.
- a. capacitance
  - b. resistance
  - c. amperage
  - d. reactive power
- \_\_\_\_ 7. the symbol for impedance is the letter \_\_\_\_.
- a. Z
  - b. H
  - c. L
  - d. R
- \_\_\_\_ 8. In AC circuit an inductor with  $L = 1 \text{ H}$  and  $F = 60 \text{ Hz}$  calculate  $X_L$  in ohms
- a. 280
  - b. 377
  - c. 400
  - d. 128

### Completion

Complete each statement.

9. \_\_\_\_\_ is one of the primary types of loads in alternating current circuits because of the continually changing magnetic fields.
10. If an inductor with an induced voltage of 106 V is connected to a 120-volt AC line, there will be \_\_\_\_\_ volts to push current through the wire resistance of the coil.

11. When inductors are connected in \_\_\_\_\_, the total inductance of the circuit equals the sum of the inductances of all the inductors.
12. The total inductive reactance of inductors connected in \_\_\_\_\_ equals the sum of the inductive reactances for all the inductors.
13. In a parallel circuit, the reciprocal of the total \_\_\_\_\_ is equal to the sum of the reciprocals of all the inductors.
14. If three inductors, all with a value of 3 H, are connected in parallel, the total inductance of the circuit would be \_\_\_\_\_ H.
15. VARs is an abbreviation for \_\_\_\_\_.