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DFTG 2307 Electrical Drafting

Chapter 1 - Homework Questions

**1. Name the three basic characteristics of electrical circuits and indicate their symbols?**

P=power, E=Voltage, I=current, R=resistance

**2. Explain the difference between an insulator and a conductor?**

Conductors allow electricity to flow while insulators stop that flow

**3. What is the force that moves electrons and how is it measured?**

Amperes is the force that moves the electrons and is measured by watts

**4. List three characteristics of a series circuit?**

Series circuits only have 1 pathway, any change in resistance affects the whole circuit, if any part of the path is broken the circuit will fail

**5. List three characteristics of a parallel circuit?**

The voltage across all branches is the same as total voltage, any opening will not stop the flow through the other branches, current is valued by the flow through each branch

**6. How does inductance affect phase of an ac circuit?**

With inductance the current is lower because it is being slowed with electromagnetism

**7. How does capacitance affect phase of an ac circuit?**by charging the capacitor it is able to resist the original flow of electricity until it hits zero

**8. Name the parts of an ac generator?**rotating coil, north and south magnetic field

**9. Briefly explain instantaneous, peak, and effective voltage?**peak is the highest value achieved, effective is average between all readings, and instantaneous is the voltage at a particular instant

**10. What is impedance?**  
the total opposition of flow