Unit 8 - Week 7

Assignment 7

Due on 2020-02-16, 23:59:59 IST.

1. What are the physical properties of a conductive material?
   - electrical conductivity
   - thermal conductivity
   - magnetic properties
   - resistance

2. Which of the following are characteristics of a qualitative material?
   - electrical conductivity
   - thermal conductivity
   - magnetic properties
   - resistance

3. What is the difference between a conductor and an insulator?
   - A conductor allows电流 to flow through it
   - An insulator does not allow电流 to flow through it

4. Which of the following statements is true?
   - A conductor is a material that allows电流 to flow through it.
   - An insulator is a material that allows电流 to flow through it.

5. What is the significance of the color code in resistors?
   - It indicates the resistance value of the resistor.
   - It indicates the material type of the resistor.

6. What is the purpose of a transformer in an electrical circuit?
   - To increase the current
   - To decrease the voltage

7. What is the role of a diode in a circuit?
   - To allow current to flow in one direction
   - To block current in both directions

8. What is the difference between a capacitor and an inductor?
   - A capacitor stores energy in its electric field.
   - An inductor stores energy in its magnetic field.

9. What is the significance of the ripple current in a power supply?
   - It indicates the maximum current the power supply can handle.
   - It indicates the minimum current the power supply can handle.

10. Which of the following is true about capacitors?
    - A capacitor stores energy in its magnetic field.
    - A capacitor stores energy in its electric field.

11. What is the difference between a resistor and a capacitor?
    - A resistor allows current to flow through it.
    - A capacitor stores energy in its magnetic field.

12. What is the role of a relay in an electrical circuit?
    - To control the flow of current
    - To control the flow of voltage

13. What is the difference between an open circuit and a closed circuit?
    - An open circuit allows current to flow through it.
    - A closed circuit does not allow current to flow through it.

14. What is the purpose of a transformer in a power supply?
    - To increase the voltage
    - To decrease the current

15. What is the significance of the color code in capacitors?
    - It indicates the capacitance value of the capacitor.
    - It indicates the material type of the capacitor.

16. What is the difference between a diode and a transistor?
    - A diode allows current to flow in one direction.
    - A transistor allows current to flow in both directions.

17. What is the role of an inductor in an electrical circuit?
    - To store energy in its magnetic field.
    - To store energy in its electric field.

18. What is the difference between an AC and a DC circuit?
    - An AC circuit has varying current.
    - A DC circuit has constant current.

19. What is the significance of the inductance in an inductor?
    - It indicates the resistance of the inductor.
    - It indicates the reactance of the inductor.

20. What is the role of a capacitor in a filter circuit?
    - To store energy in its electric field.
    - To store energy in its magnetic field.