

Chapters 21, 22, 24 Magnetism, AC, Electronics

PRINT Name _____ Period _____

1. List 11 Evidences supporting the Domain Theory of Magnetism.
2. a) Describe Oersted's great discovery. b) Describe the Left Hand Rule for the Magnetic Field surrounding a wire.
3. a) What is a Magnetic Solenoid? b) If we know which way the current is flowing, describe how we can determine which end is North.
4. a) What is a Magnetic Relay Switch? b) Give Three uses for such a thing.
5. Describe a) how a microphone converts sound waves into electrical impulses, and b) how electrical impulses operate a loudspeaker.
6. a) Describe Faraday's great discovery of Induction. b) List Three factors determining the Strength of an Induced emf.
7. Describe the Three Fingered Rule for Induction.
8. State Lenz' Law and give Two examples.
9. Explain how the Induction Coil (Sparky) changes low voltage to big "Zappy" voltage.
10. Explain why a Transformer only operates with Alternating Current. (Review Faraday's great discovery).
11. Tell why a given amount of power is more efficiently transmitted at high voltages.
12. A step-up transformer has 500 turns on the secondary coil and 100 turns on the primary coil. If 50 AC volts are applied to the primary, calculate the output voltage on the secondary. Ans: 250volts.
13. Illustrate the Edison Hookup for houses and show how to get both 120v and 240v out of the three wires that enter your house.
14. Diagram a Transistor and tell Three things it performs.
15. What is a Commutator and how does it change a generator's AC into DC?
16. Write the Formulae and tell their parameters for a) Inductive Reactance, b) Capacitive Reactance, c) Resonance.
17. a) Diagram and label the Vectors of Impedance. b) Write the Formula for Impedance.
18. Explain how a Microwave Oven heats food.
19. Diagram a Triode Amplifier and tell how it works.