

TELECOM A + B 9/29/15
ASSIGNMENTS

D.C. THEORY

- ① READ ~~THE~~ P. 51-55 TEXT
- ② TAKE NOTES USING CHAPTER SECTION HEADINGS TO HELP ORGANIZE NOTE-TAKING
- ③ LESSON 6 WORKBOOK # 1-5, 13-16, 23-25
- ④ REVIEW PP. 45-51 ESPECIALLY SECTIONS ON CHEMICAL ACTION (BATTERIES) AND ELECTRICITY & LIGHT (TYPES OF BULBS ETC)
- ⑤ GET YOUR BINDER SET-UP

COMPUTERS

- ① REVIEW THE FIRST CHAPTER AS NEEDED.
- ② COMPLETE THE REVIEW SHEET TITLED : " CH1 COMPUTERS + COMPUTER SYSTEMS QUIZ "
- ③
↳ SHORT QUIZ ON CH 1 NEXT WEEK
OPEN BINDER
- ④ PREVIEW - SKIM READ - LESSON 2
" INPUT OUTPUT AND PROCESSING "
IN TEXT



Name _____ Date _____ Per _____



BOHR MODELS

For each element shown, look up the necessary information on the Periodic Table. Then construct a Bohr diagram. Use the sample done as a guide.

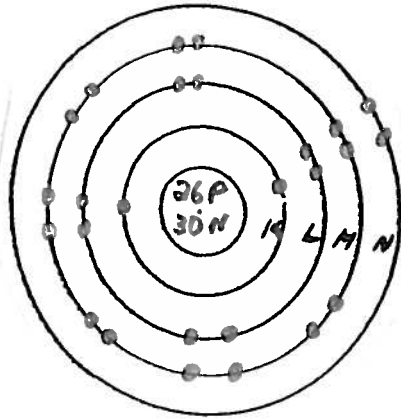
SAMPLE:

IRON

${}_{26}\text{Fe}^{56}$

26 P 30 N 26 e⁻

K - L - M - N
2 - 8 - 14 - 2

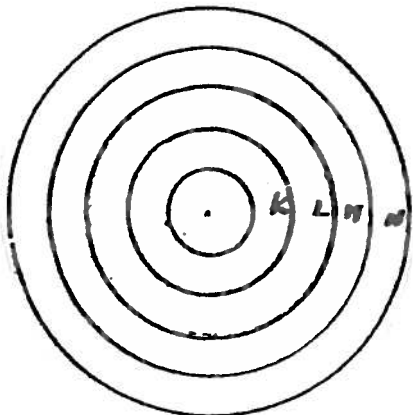


BROMINE

 Br ⁻ P N e⁻

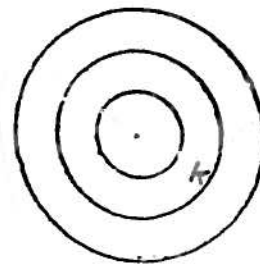
K - L - M - N

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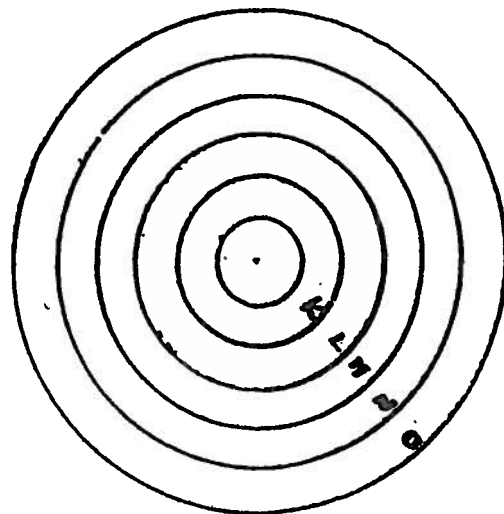
NITROGEN

 N ⁻ P N e⁻

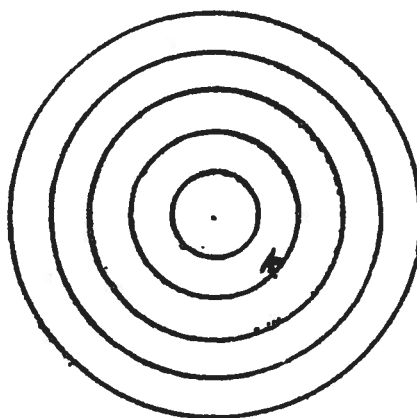


SILVER

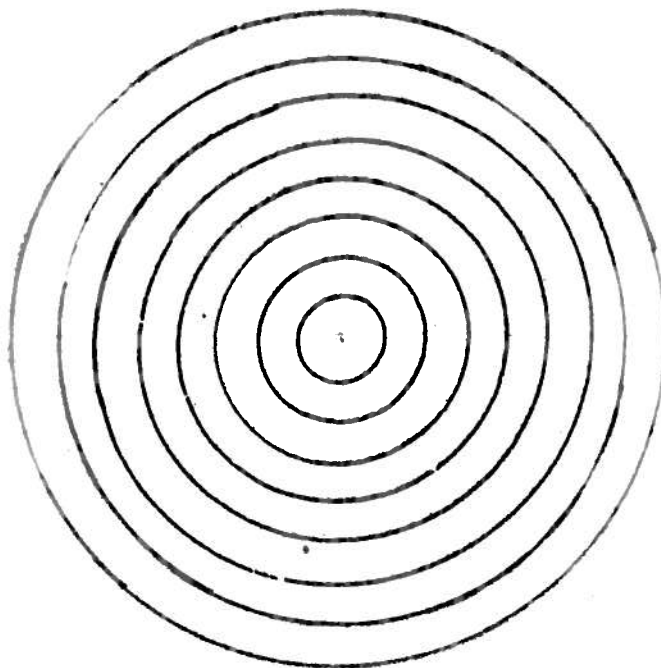
— Ag —



KRYPTON



RADIUM



Name _____

Date _____



Lesson 6: Electrical Energy Sources

LESSON 6

Reference

1. *DC Theory Text*
(Chapter 2)

Introductory Information

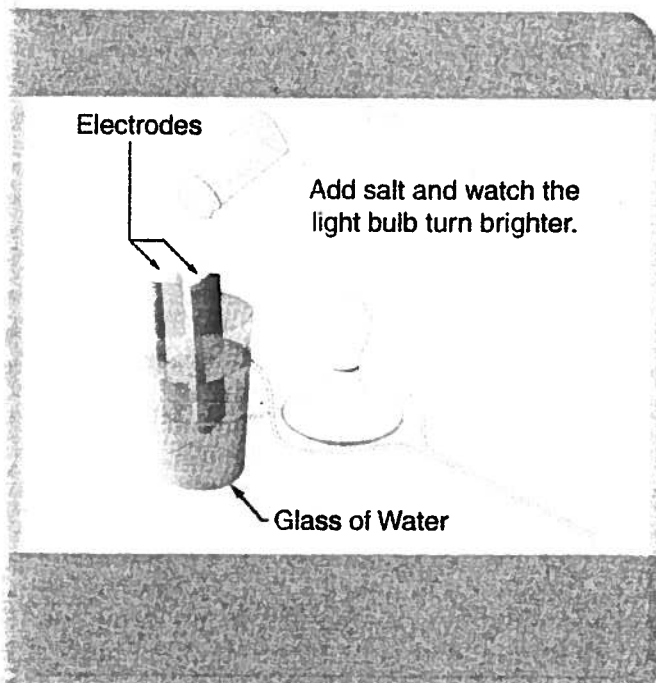
Electrical energy may be produced in several ways and can be utilized by taking advantage of its different effects. When current flows through an electric range element the heat produced is useful and desirable. When current flows through an electric motor, heat produced is undesirable but its magnetic effect is useful.

Work toward understanding the principles by which all electrical devices operate.

Learning Objectives

After completing this lesson, you will be able to:

1. Identify and describe the different means of producing electric current.
2. Describe the makeup of a battery and explain how to determine polarity.
3. Explain how electricity can create heat and light.



Questions

1. Name six (6) methods that can be employed to force electrons out of their valence ring producing electrical current.
2. List the five (5) effects or types of activity that can be produced by electrical energy.
3. What type of electricity or electrical charge can be created by rubbing one type of material against a different type of material?
4. Friction is a source of ? .
5. The chemical source of electricity is best represented in our daily lives by the ? .

6. Draw a 3-cell battery.
7. What determines the individual cell voltage of a battery?
8. When aluminum and silver are used for a battery cell, which metal will be the negative electrode? Why?
9. Name the two (2) categories that batteries are divided into.
10. Which type of battery cell can be recharged several times?
11. ? is generated any time current flows through a wire.
12. Why are metals such as copper and aluminum used as conductors?
13. List several applications where heat from electricity is a desired outcome.
14. Define Thermoelectricity.
15. A(n) ? is very common in gas appliances such as water heaters.
16. Electricity created by stress or pressure in a material is called ? .
17. Light has small particles of energy called ? .
18. A photocell is a device that operates on which photoelectric effect?
19. Explain how the incandescent lamp works.
20. List four (4) other types of light producing devices, besides the incandescent lamp.

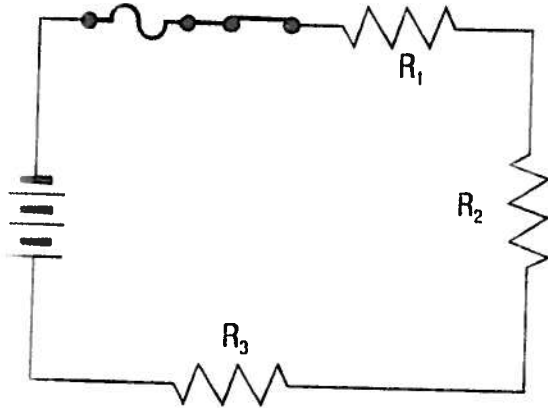
Lesson 6 Electrical Energy Sources

21. How many elements are in a three-way light?

23. Underrating a cable can cause the insulation for the cable to ?.

22. Show the current direction and label the negative and positive points for each of the loads and the battery on the circuit below.

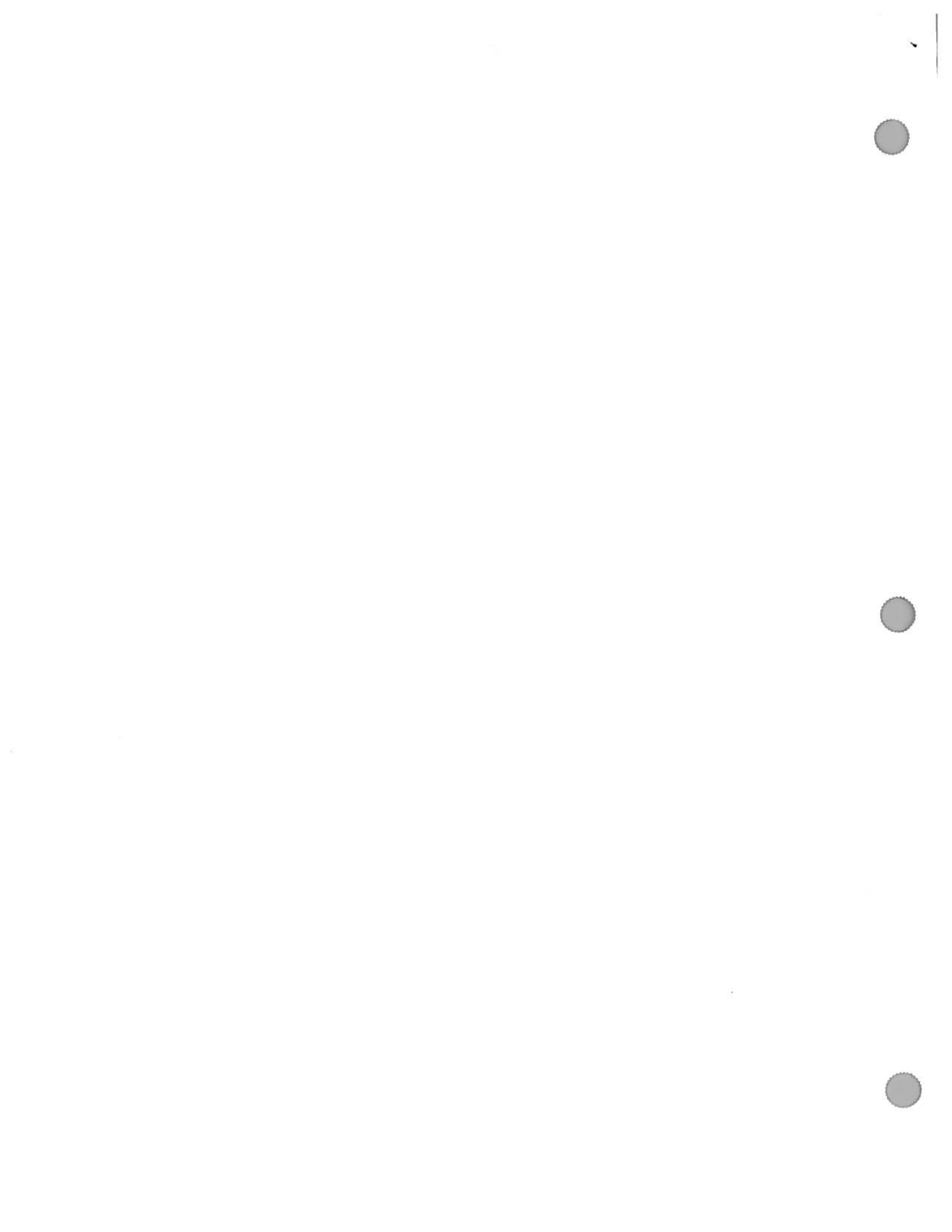
24. The ? of a conductor is the maximum current the conductor can carry safely without exceeding its temperature rating.



25. The ? requires branch-circuit conductors to have an ampacity ? the non-continuous load plus ? of the continuous load.

Discussion Topic

What advantages are there for the customer in contracting with a NECA contractor employing IBEW craft workers?



Ch.1 Computers and Computer Systems Quiz

A. Tell what these mean.

k _____	RAM _____
MB _____	ROM _____
G _____	ALU _____
Hz _____	DATA _____
CD-R _____	Blu-ray _____

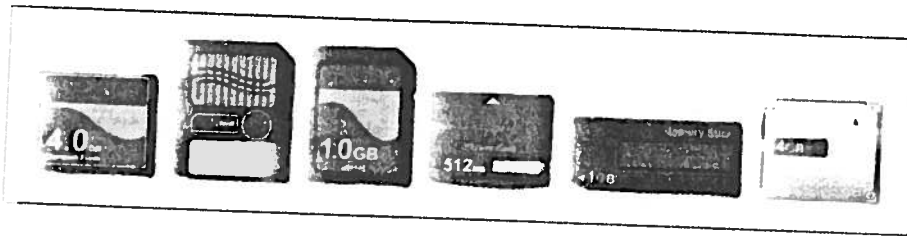
B.

1. What is a computer? _____

2. What is a Hertz (Hz)? _____
3. What is a good speed for a computer's CPU? _____
4. Name 5 Storage Devices _____

5. The two primary sections of the CPU are the _____ and the _____
6. Name the components that would be found on the computer's motherboard.
(As many as possible.)

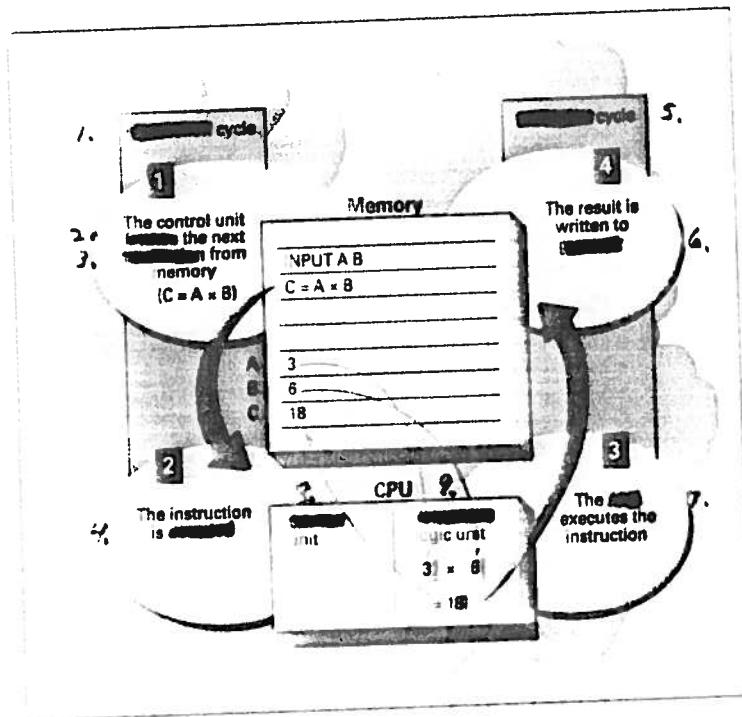
7. _____



What type of storage are these? _____
What are some possible uses/devices for these components?

B. Explain how cooking a piece of breads in an electric toaster shows the basic processing of a computer.
(HINT: IPOS)

D. Label any missing parts or steps.



1. _____ 2. _____ 3. _____ 4. _____
5. _____ 6. _____ 7. _____ 8. _____ 9. _____

What is this cycle called? _____

How does it relate to the computer's speed? _____

What are some ways to increase a computer's processing speed? _____
