Chapter 4 and 5 Review Name_____

1. Each molecule of CO_2 contains one atom of C and _____ atoms of O.

2. How many atoms are in the following molecule? $C_{22}H_{24}N_2O_8.HCl$
   C _____ N _____ Cl _____
   H _____ O _____ Total # _____

3. How many atoms are in the following molecule? $2\ C_{22}H_{30}N_6O_4S$
   C _____ N _____ S _____
   H _____ O _____ Total # _____

4. Why are alkali metals extremely reactive?

5. Why do atoms join (bond)?

6. Why are the noble gases inert?

7. What is the charge on an atom? Explain.

8. Describe the nucleus of an atom?

9. Ionic bonds form b/t _____ and _____.

10. In an ionic bond the _____ is always positive, aka _____.

11. In an ionic bond the _____ is always negative, aka _____.

12. Using your periodic table, list all the alkali metals.

13. Electrons are a _____ charge.

14. According to Bohr's model of the electron, how do electrons behave?

15. Why are metals good conductors of electricity?

16. The atomic number of Re is 75. The atomic mass of one if its isotopes are 188. How many ...
    Protons _____ Neutrons _____ Electrons _____

17. Where are the nonmetals found?

18. What is the force called that holds atoms or ions together?

19. Atoms of elements that are in the same group have the same number of ...

20. According to modern atomic theory, it is nearly impossible to determine an electron's exact _____.

21. Briefly describe the modern atomic theory.

22. How is the modern atomic theory different from Bohr's model.

23. The order of elements in the periodic table is based on what_____, NOT _____.

24. How do halogens form compounds?

25. What is an ion?

26. _____ ions are positive, and _____ ions are negative.

27. How are mixtures different from compounds?

28. An element with five electrons in its outermost energy level would form an ion with a charge of?

29. How many valence electrons do the following have?
Alkali Metals _____ Halogens _____
Alkaline Earth Metals _____ Noble Gases _____

30. What determines chemical properties?

31. Why do solid ionic compounds have very high melting points?

32. Describe semiconductors (metalloids).

33. The majority of elements on the P.T. are _____.

34. Which type of bond shares electrons?

35. Which type of bond gives/takes electrons?

36. Draw the electron dot diagram of the following atoms.

B Ar P F Rb Ba

37. Elements in the periodic table that have repeating properties are in a _____.

38. Elements in the periodic table that have common properties are in a _____.

39. Fill in the table.

Name	Symbol	Atomic #	Proton	Neutron	Electron	Group	Period
Sulfur							
					17		
						5A	4

40. Why do magnesium and fluorine form an ionic bond and NOT a covalent bond?

41. KNOW HOW TO NAME IONIC AND COVALENT!!!!!