 **NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PERIOD\_\_\_\_\_**

**CHEMISTRY**

**ELECTRONIC STRUCTURE REVIEW**

1. Write the electron configuration notation for the following atoms. Use the noble gas core for anything larger than argon (#18).
2. carbon
3. aluminum
4. sulfur
5. iron
6. silver
7. Write the orbital notation for the following atoms.
8. nitrogen
9. neon
10. phosphorous
11. sulfur
12. potassium
13. Write the electron dot symbol next to the orbital notation for each of the atoms in

number 2.

4. Consider an atom of nitrogen.

1. How many valence electrons does it have?
2. How many pairs of electrons does it have in the outer shell?
3. How many unpaired electrons does it have in the outer shell?
4. Consider an atom of iodine.
5. How many valence electrons does it have?
6. How many pairs of electrons does it have in the outer shell?
7. How many unpaired electrons does it have in the outer shell?
8. Consider an atom of cobalt.
9. How many valence electrons does it have?
10. How many pairs of electrons does it have in the outer shell?
11. How many unpaired electrons does it have in the outer shell?

**Section Two: Mutiple Choice**

1. which of the following is a halogen?
2. Mg
3. Cs
4. Mn
5. Ac
6. none of these
7. which of the following is an alkaline earth element in the fourth family?
8. Ca
9. Zr
10. Si
11. Pr
12. none of these
13. none of these
14. which of the following has the greatest electronegativity?
15. Na
16. Ba
17. Fr
18. S
19. Al
20. a metalloid.
21. K
22. Be
23. Ce
24. Si
25. Cl
26. chlorine has two valence electrons.
27. true
28. false
29. the last electron entered in a bromine atom is entered in the 3p sublevel.
30. true
31. false
32. a phosphorus atom is larger than a potassium atom.
33. true
34. false
35. a negative ion is formed when electrons are removed from a neutral atom
36. true
37. false
38. a vertical column of elements is known as
39. series
40. period
41. group
42. collection
43. none of these
44. O2- has a larger radius than N3-.
45. true
46. false
47. what happens to atomic radius as you move left to right across the periodic table?

explain.