

## CHEMICAL BONDING WORKSHEET

### A. Answer the following questions.

1. Draw the Lewis structure of each of the following atoms and determine the bonding capacity of each one?

- a)  ${}_6\text{C}$
- b)  ${}_7\text{N}$
- c)  ${}_8\text{O}$
- d)  ${}_9\text{F}$
- e)  ${}_{10}\text{Ne}$
- f)  ${}_{15}\text{P}$
- g)  ${}_{16}\text{S}$

2. Element Y has second valence shell, and it can form a stable compound with element  ${}_{11}\text{X}$ . If the formula of the compound is  $\text{X}_2\text{Y}$ , what is the atomic number of Y.

3. An element X with an atomic number of 17 and element Y with an atomic number of 20 forms a compound. What is the formula of this compound.

4. Write the Lewis structures of the following molecules. ( ${}_1\text{H}$ ,  ${}_6\text{C}$ ,  ${}_7\text{N}$ ,  ${}_9\text{F}$ ,  ${}_{17}\text{Cl}$ )

- a)  $\text{C}_2\text{Cl}_2$
- b)  $\text{N}_2\text{H}_4$
- c)  $\text{HF}$