**COSTAATT**

**CHEM 090**

**Lesson 7 – Homework**

1. What happens to the electrons when covalent bonds are formed?

(a) They are lost (b) They are gained

(c) They are shared (d) They are not involved

2. Use shell diagrams to represent the covalent bonding in the following elements/compounds:

(a) H2  (b) N2  (c) HBr

3. Draw the shell diagram of the covalent bonding between carbon and chlorine and give the formula of the compound.

4. (i) Draw ring diagrams to show all the electrons in:

(a) a hydrogen chloride molecule

(b) a fluorine molecule

(c) a carbon dioxide molecule

(ii) Are all the electrons in an atom used in bonding? Explain your answer.

5. Copy and complete the following table.

|  |  |  |
| --- | --- | --- |
| **Particle** | **Number of Protons** | **Number of Electrons** |
| Hydrogen atom |  |  |
| Hydrogen ion |  |  |
| Chlorine atom |  |  |
| Chloride ion |  |  |
| Sodium ion |  |  |