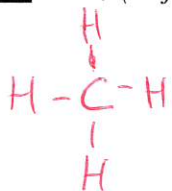




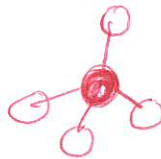
Name : \_\_\_\_\_

**B. Alkanes** - (composed of hydrogen, carbon and contain single bonds; Generic Formula =  $C_nH_{2n+2}$ )

**1. Methane** -  $CH_4$  (major component of natural gas)

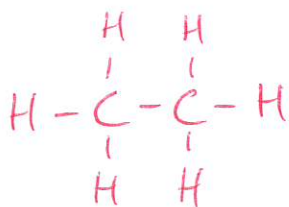


Structural Formula

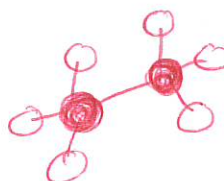


Molecule Drawing

**2. Ethane** -  $C_2H_6$  (converted to ethylene to make plastics)

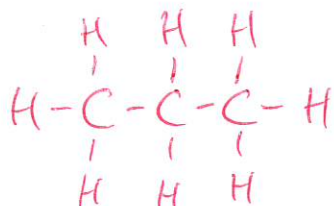


Structural Formula

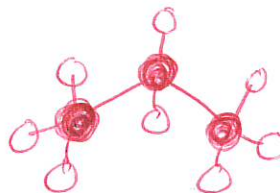


Molecule Drawing

**3. Propane** -  $C_3H_8$  (used in home & water heating, cooking, refrigeration, clothes drying)

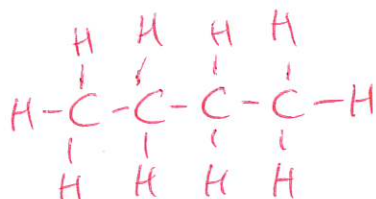


Structural Formula

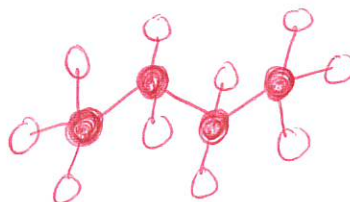


Molecule Drawing

**4. Butane** -  $C_4H_{10}$  (used in camping cooking, cigarette lighters, deodorants)

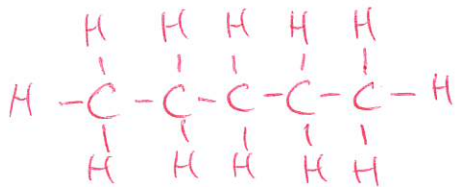


Structural Formula

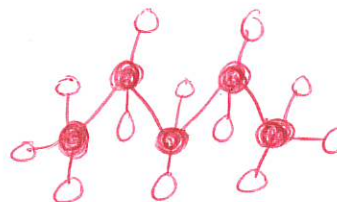


Molecule Drawing

**5. Pentane** -  $C_5H_{12}$  (used in the production of polystyrene)

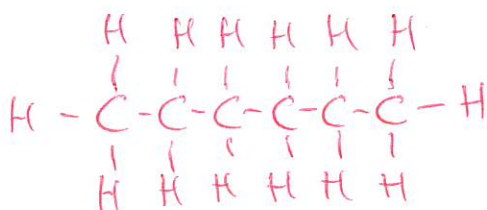


Structural Formula

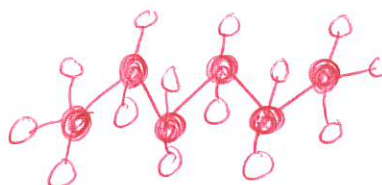


Molecule Drawing

**6. Hexane** -  $C_6H_{14}$  (additive in gasoline, glue, varnish, & inks)



Structural Formula

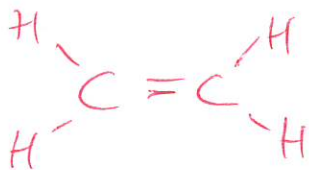


Molecule Drawing

Name : \_\_\_\_\_

**C. Alkenes** - (composed of hydrogen, carbon and contain a double bonds; Generic Formula =  $C_nH_{2n}$ )

**1. Ethylene** -  $C_2H_4$  (used to make plastics; anti-freeze)

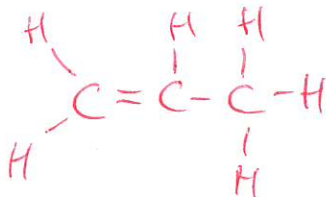


Structural Formula

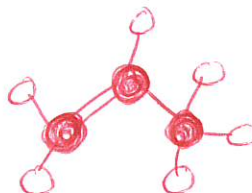


Molecule Drawing

**2. Propylene** -  $C_3H_6$  (used to make plastics for injection molding and fibers)

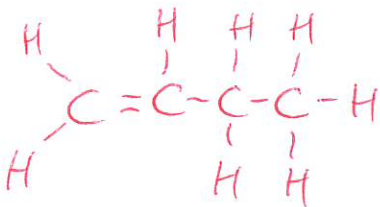


Structural Formula

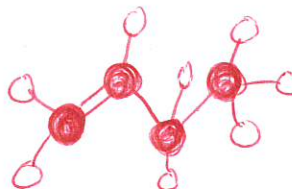


Molecule Drawing

**3. 1-Butene** -  $C_4H_8$  (used in production of gasoline and rubber processing)

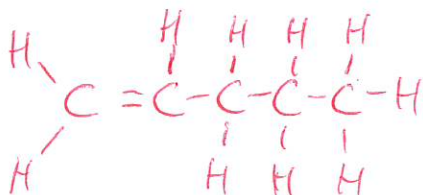


Structural Formula

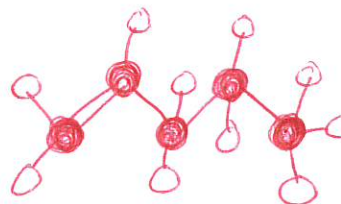


Molecule Drawing

**4. 1-Pentene** -  $C_5H_{10}$  (used as a pesticide and gasoline additive)



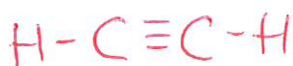
Structural Formula



Molecule Drawing

**D. Alkynes** - (composed of hydrogen, carbon and contain a triple bonds; Generic Formula =  $C_nH_{2n-2}$ )

**1. Acetylene** -  $C_2H_2$  (used in brazing, cutting, & metallurgical heating & hardening; plastic production)



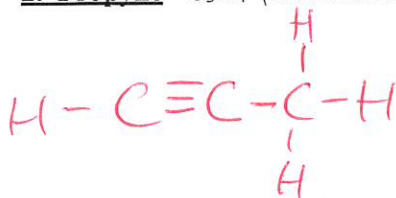
Structural Formula



Molecule Drawing

Name : \_\_\_\_\_

**2. Propyne** -  $C_3H_4$  (alternative to acetylene; rocket fuel for space craft)

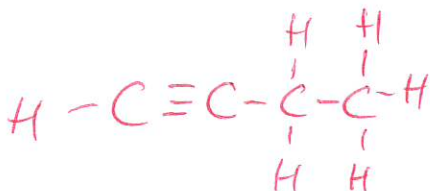


Structural Formula



Molecule Drawing

**3. 1-Butyne** -  $C_4H_6$  (used in specialty gas mixtures for instrument calibration)

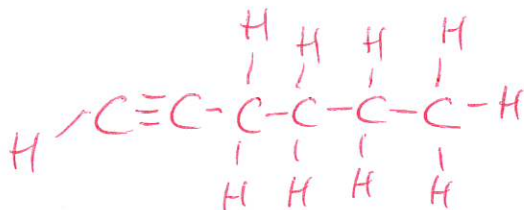


Structural Formula

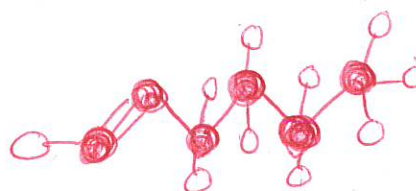


Molecule Drawing

**4. 1-Hexyne** -  $C_6H_{10}$  (used in the pharmaceutical industry)



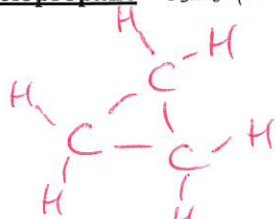
Structural Formula



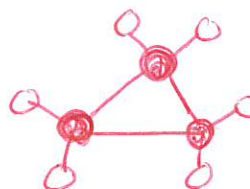
Molecule Drawing

**E. Cyclic Hydrocarbons** - (form a ring of covalently-bonded carbon atoms)

**1. Cyclopropane** -  $C_3H_6$  (used as a general anesthetic)

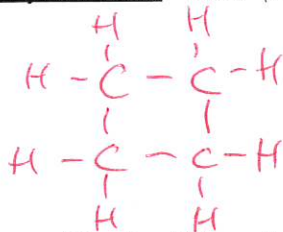


Structural Formula

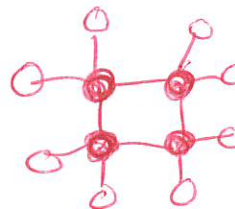


Molecule Drawing

**2. Cyclobutane** -  $C_4H_8$  (used in pharmaceutical compounds)

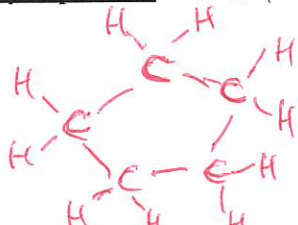


Structural Formula

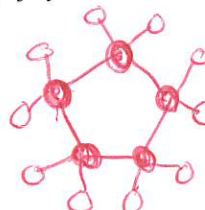


Molecule Drawing

**3. Cyclopentane** -  $C_5H_{10}$  (used in the manufacturing of synthetic resins and rubber adhesives)



Structural Formula



Molecule Drawing

Name : \_\_\_\_\_

## F. Angles & Types

### 1. Angular - H<sub>2</sub>O (water)

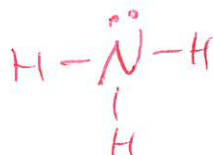


Structural Formula



Molecule Drawing

### 2. Pyramidal - NH<sub>3</sub> (ammonia) - *USE 3-HOLE BLUE AND WHITE ATOMS*

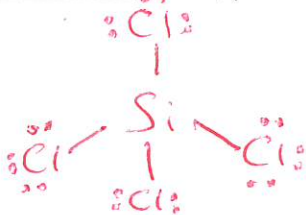


Structural Formula



Molecule Drawing

### 3. Tetrahedral - SiCl<sub>4</sub> (silicon tetrachloride) - *USE 4-HOLE BLUE AND GREEN ATOMS*



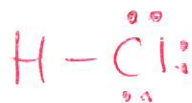
Structural Formula



Molecule Drawing

## G. EXTRA COMPOUNDS

### 1. Hydrochloric Acid - HCl



Structural Formula



Molecule Drawing

### 2. Carbon Dioxide - CO<sub>2</sub>

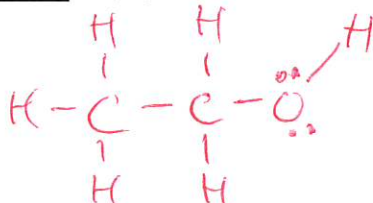


Structural Formula

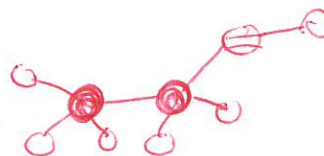


Molecule Drawing

### 3. Ethanol - C<sub>2</sub>H<sub>5</sub>OH



Structural Formula

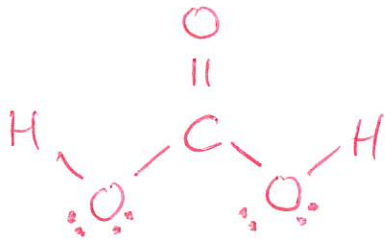


Molecule Drawing

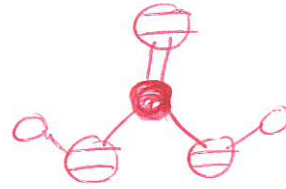


Name : \_\_\_\_\_

**4. Carbonic Acid -  $H_2CO_3$**



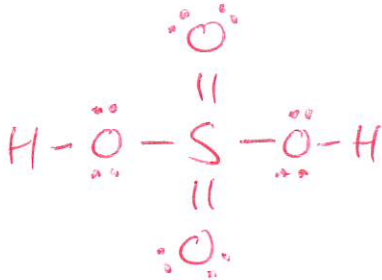
Structural Formula



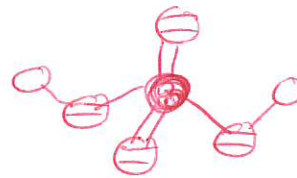
Molecule Drawing

**5. Sulfuric Acid -  $H_2SO_4$**

Uneven sharing of electrons

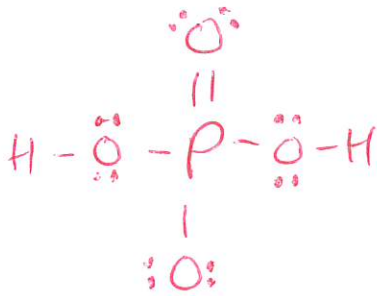


Structural Formula

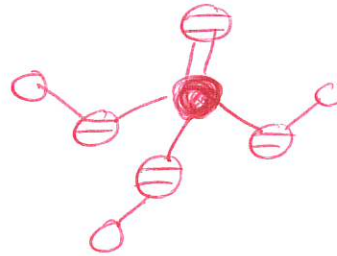


Molecule Drawing

**6. Phosphoric Acid -  $H_3PO_4$**

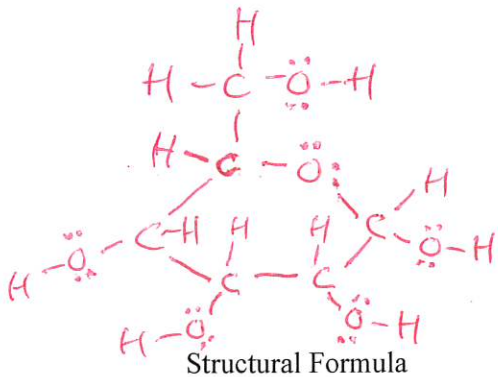


Structural Formula

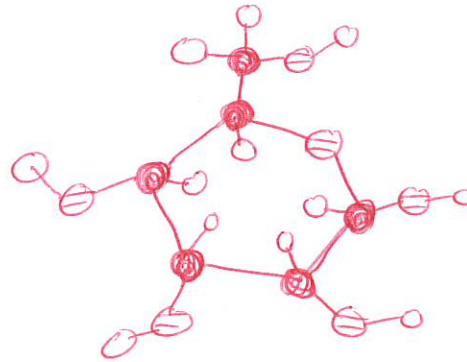


Molecule Drawing

**7. Glucose -  $C_6H_{12}O_6$**



Structural Formula



Molecule Drawing