**UNIQUE Private High School**

**Chemistry Exam Paper**

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| **G12** | **CHEMISTRY** | **TIME Allowed (45 minutes)** |

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| **1. Write TRUE or FALSE for each of the following statements** | **(25 marks)** |

a. All elements are composed of atoms.

b. Combustion is an example of a chemical reaction.

c. Noble gases are inert because they have full outer electron shells.

d. Electrolysis requires the flow of ions in a liquid or molten state.

e. Groups in the periodic table indicate elements with similar properties.

f. Elements in the same group of the periodic table have similar chemical properties.

g. Covalent bonds are formed by the sharing of electrons.

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| **2. Fill in the blanks with the correct word(s), phrase(s), term(s), unit(s), etc.., as necessary** | **(25 marks)** |

a. A \_\_\_\_\_\_\_ is formed when two or more elements combine chemically.

b. Helium is a colorless, odorless, and \_\_\_\_\_\_\_ gas.

c. The process of electrolysis involves passing an \_\_\_\_\_\_\_ through a liquid.

d. In electrolysis, the \_\_\_\_\_\_\_ is the electrode where reduction occurs.

e. The atomic mass of an element is the sum of the number of \_\_\_\_\_\_\_ and neutrons.

f. Ionic bonds occur when atoms \_\_\_\_\_\_\_ electrons.

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| **3. Select the correct word(s), notation(s), term(s), unit(s), etc.., given in the brackets** | **(25 marks)** |

a. What is the name of this compound NH3+? a) Ammonia b) Platinum c) Gold d) Silver

b. Which part of the atom has a positive charge?
a) Proton
b) Neutron
c) Electron

c. What happens during a chemical reaction?
a) Atoms are rearranged to form new substances
b) Atoms are destroyed
c) Electrons are transferred between atoms

d. Which group in the periodic table contains the noble gases?
a) Group 18
b) Group 1
c) Group 17

e. Which of the following is an example of a noble gas?
a) Helium
b) Hydrogen
c) Oxygen

f. What is required to carry out electrolysis?
a) Electric current
b) Heat
c) Pressure

g. The periodic table is arranged by increasing \_\_\_\_\_\_\_.
a) Atomic number
b) Atomic mass
c) Density

h. What type of bond involves the sharing of electrons?
a) Covalent bond
b) Ionic bond
c) Metallic bond