



**GREENLAWNS HIGH SCHOOL
CHEMISTRY FINAL EXAMINATION**

STD : 8

MARKS : 80

TIME : 2 HOURS

You will not be allowed to write for the first 10 minutes .This time is to be used to read the question paper. Answers to this paper must be written on the paper provided separately. All questions are compulsory

SECTION 1

QUESTION 1

A) Name the following

(10)

- i) Natural form of graphite
- ii) Compound formed when oxygen combines with haemoglobin
- iii) Elements having properties of metals and non metals
- iv) Product formed when diamond burns in air
- v) Process by which plants manufacture food
- vi) Fertilizer prepared using carbon dioxide
- vii) Conversion of liquid to gas
- viii) Forces that hold carbon atom in graphite
- ix) Sub atomic particles present in the nucleus of the atom
- x) Compound formed when carbon monoxide is reacted with nickel

B) Complete the following equations.(Remember to balance them).

(5)

- i) $\text{CO} + \text{H}_2 \rightarrow$
- ii) $\text{NaHCO}_3 + \text{HCl} \rightarrow$
- iii) $\text{Na}_2\text{CO}_3 + \text{H}_2\text{SO}_4 \rightarrow$
- iv) $\text{CaCO}_3 + \text{H}_2\text{O} + \text{CO}_2 \rightarrow$
- v) $\text{CO} + \text{H}_2\text{O} \rightarrow$

C) Fill in the blanks .Write only the answer

(5)

- i) Solid carbon dioxide is known as _____
- ii) A _____ has more protons than electrons
- iii) An atom is the smallest particle of _____
- iv) Coal is a _____ form of carbon
- v) _____ is used as alubricant

...2/-

D) Identify whether the following statements are correct or incorrect .If incorrect, change the first or last word to make it a correct. (5)

- i) Diamond burns at 700°C
- ii) Carbon dioxide is added to the atmosphere by photosynthesis
- iii) Limewater is the common name for calcium oxide
- iv) Allotropy is due to the difference in arrangement of molecules
- v) Non metals lose electrons to attain stability

E) Balance the following equations (5)

- i) $S + H_2SO_4 \rightarrow SO_2 + H_2O$
- ii) $ZnS + O_2 \rightarrow ZnO + SO_2$
- iii) $H_2 + O_2 \rightarrow H_2O$
- iv) $Fe + Cl_2 \rightarrow FeCl_3$
- v) $H_2O + NO_2 + O_2 \rightarrow HNO_3$

F) Identify whether the following is a physical or a chemical change (3)

- i) Ripening of fruit
- ii) Growing of a tree
- iii) Vapourisation of water
- iv) Melting of wax
- v) Boiling of milk
- vi) Burning of a candle

G) Name the allotrope of carbon used in the following (2)

- i) Used in the manufacture of water gas and producer gas
- ii) filler in rubber tyres
- iii) Used as electrodes
- iv) as a decolourising agent

H) Write the molecular formula of the following compounds (5)

- i) Calcium carbonate
- ii) Sodium phosphate
- iii) Lead nitrate
- iv) Ammonium chloride
- v) Copper oxide

SECTION II

QUESTION 2

- A) Give one difference between the following on the basis of what is given in brackets (5)
- i) CO and CO₂ (when passed through lime water)
 - ii) diamond and graphite (shape of crystal)
 - iii) CO and CO₂ (vapor density)
 - iv) Exothermic and Endothermic reaction (Definition)
 - v) Diamond and Graphite (Density)

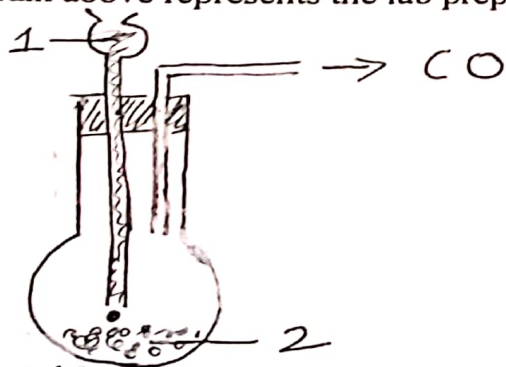
B) Define

- i) Catalyst (5)
- ii) Allotropy
- iii) A chemical change
- iv) Neutralisation
- v) Valency

QUESTION 3

- A) With respect to the lab preparation of carbon dioxide (5)
- i) Give an equation for the reaction
 - ii) Why does carbon dioxide have a sour taste
 - iii) Give a chemical test for carbon dioxide
 - iv) Why is carbon dioxide used to extinguish a fire(2 points)

B) The diagram above represents the lab preparation of carbon monoxide (5)



- i) Identify 1 and 2.
- ii) Write an equation for the same
- iii) Name an impurity produced during the reaction
- iv) How is this impurity removed?
- v) Why is carbon monoxide not prepared in the lab ?

QUESTION 4

(5)

A) Give reasons

- i) Baking powder is added when making a cake
- ii) Diamonds have a bright lustre
- iii) Wood charcoal is used as a reducing agent. Give an equation to explain.
- iv) An ion has a charge
- v) Fermentation is a chemical change

B) Identify the type of chemical reaction each of the following is

(5)

- i) $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
- ii) $\text{Ca}(\text{NO}_3)_2 + \text{Na}_2\text{CO}_3 \rightarrow 2\text{NaNO}_3 + \text{CaCO}_3$
- iii) $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
- iv) $2\text{SO}_2 + \text{O}_2 \rightarrow 2\text{SO}_3$
- v) $\text{N}_2 + 3\text{H}_2 \rightleftharpoons 2\text{NH}_3$

QUESTION 5

A) An element X ${}_{9}^{19}$,

(5)

- i) How many electrons are present in atom X
- ii) How many protons
- iii) Write its electronic configuration
- iv) Draw its atomic structure
- v) Is element X a metal or a non metal

B) With respect to carbon monoxide, answer the questions that follow

(5)

- i) Name the compound formed when carbon monoxide combines with haemoglobin
- ii) How is this compound harmful?
- iii) How should a victim of carbon monoxide poisoning be treated
- iv) How is the gas mask used by workers in factories useful
- v) Name any one situation which may lead to