

GREENLAWNS SCHOOL, WORLI
TERMINAL EXAMINATION: 2020-21
CHEMISTRY

Std: IX
Date: 25/09/2020

Marks: 40
Time: 1.5 hr

SUBJECTIVE QUESTIONS (40 marks)

- Q.1) Give balanced chemical equations for the following: [5]
- Thermal decomposition of Potassium nitrate.
 - Concentrated sulphuric acid as a dehydrating agent.
 - Action of heat on Ammonium dichromate.
 - Conversion of sodium oxide to sodium hydroxide using a neutral liquid.
 - Action of dilute Hydrochloric acid on the metal iron.
- Q.2) Differentiate between: [5]
- Dehydrating agent and drying agent
 - O₂ and O
 - Covalent and electrovalent bond
 - NH₄¹⁺ and N³⁻
 - Catalyst and electricity (a balanced chemical equation)
- Q.3) Balance the following and state the type of reaction: [6]
- $Mg_3N_2 + H_2O \rightarrow Mg(OH)_2 + NH_3$
 - $HNO_3 \rightarrow NO_2 + H_2O + O_2$
 - $Fe + H_2O \rightarrow Fe_3O_4 + H_2$
 - $P + O_2 \rightarrow P_2O_5$
- Q.4) The formula of the aluminate of a metal is MAIO₂. What will be the formula of its: [4]
- | | |
|--------------|-----------------|
| a) Hydroxide | c) Hypochlorite |
| b) Nitrite | d) Nitride |
- Q.5) An atom of an element is represented as ${}_{16}A^{32}$. Answer the questions that follow: [3]
- Define the term represented by the value 32 given above.
 - State the valency of element A.
 - Is element 'A' a metal or a non-metal?
- Q.6) Calculate the total percentage of Magnesium in Magnesium nitrate crystals, [2]
 $Mg(NO_3)_2 \cdot 6H_2O$ [Mg=24, N=14, O=16, H=1]
- Q.7) Write the formulae and chemical names of the following: [4]
- | | |
|------------------|-----------------|
| a) Green vitriol | c) Epsom salt |
| b) Gypsum | d) Blue vitriol |

Q.8) What are isotopes? Draw the isotopes of Hydrogen. [4]

Explain why atomic mass of chlorine is a fraction and not a whole number.

Q.9) Draw the atomic structure of each of the following atoms showing the number of electrons, protons and neutrons in each of them. Also state its electronic configuration and valency.

a) K (A=39)

b) C (A=12)

[4]

Q.10) Draw the atomic orbit structure diagram for the formation of each of the following:

[3]

a) Water

b) Calcium oxide
