

STANDARD IX SECOND TERM EXAMINATION 2022
CHEMISTRY

Answer Key Prepared by: Jayesh Madasseri, HSST Chemistry;
HMSSHS Thurakkal

Sl.No	Evaluation Points	Marks												
1	H ⁺													
2	Law of octaves													
3	Flourine													
4	Antacid													
5	Sulphur													
6	Correct statement b and d SO ₂ causes acid rain. If the acidity of the soil increases , we add basic substances													
7	Size of atom decreases as we move from left to right in the period because the effective nuclear charge increases													
8	a. Catalyst b. Phosphoric Acid(H ₃ PO ₃)													
9	a. Electronic configuration 20 Ne = 2,8 10 Group Number = 8+10 = <u>18</u> b. No; This element do not involve in any type of reactions because this element is already in stable state. Outer most shell of Neon(Ne) has eight electrons													
10	a. HNO ₃ -----> H ⁺ + NO ₃ ⁻ b . Basicity of HNO ₃ = 1													
11	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Name of Salt</th> <th style="width: 33%;">Chemical Formula</th> <th style="width: 33%;">Use</th> </tr> </thead> <tbody> <tr> <td>Washing Soda</td> <td>Sodium Carbonate</td> <td>Manufacture of glass</td> </tr> <tr> <td>Blue vitriol</td> <td>Copper Sulphate</td> <td>Fungicide</td> </tr> <tr> <td>Common Salt</td> <td>Sodium Chloride</td> <td>Making Freezing Mixture</td> </tr> </tbody> </table>	Name of Salt	Chemical Formula	Use	Washing Soda	Sodium Carbonate	Manufacture of glass	Blue vitriol	Copper Sulphate	Fungicide	Common Salt	Sodium Chloride	Making Freezing Mixture	
Name of Salt	Chemical Formula	Use												
Washing Soda	Sodium Carbonate	Manufacture of glass												
Blue vitriol	Copper Sulphate	Fungicide												
Common Salt	Sodium Chloride	Making Freezing Mixture												
12	a.Lavoisier b.Mendeleev c. Mosley													
13	a. When size of an atom increases, the ionisation energy decreases. Atomic size and ionisation energy are inversely proportional b. Nuclear charge c. Decreases													
14.	a) Beaker containing concentrated hydrochloric Acid b. Concentration of acid													

	c. $\text{Mg} + 2\text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$	
15.	a. D b) A and B c. C	
16.	a. Period =4 b. Transition elements c. (i) Transition elements make coloured compounds (ii) They show variable oxidation state	
17	a. Carbon Dioxide b. $\text{CaCO}_3 + 2\text{HCl} \rightarrow \text{CaCl}_2 + \text{H}_2\text{O} + \text{CO}_2$ c. Rate of chemical reaction increases because, when surface area of solid increases effective number of collision also increases. As a result rate of chemical reaction increases.	
18.	a. A pink colour is formed in NaOH solution b. pink colour gradually decreases c. Neutralisation reaction d) NaCl [$\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$] Sodium Chloride	
19.	a. Group Number =13 b. 2,8 c. P d. P Q = 2,8,4 14	
20	a) $\text{NH}_4^+ \text{SO}_4^{2-}$ $\text{NH}_4(\text{SO}_4)_2$ $(\text{NH}_4)_2\text{SO}_4 = ((\text{NH}_4)_2\text{SO}_4$ b. Used as fertiliser c. Alkali – Calcium Hydroxide ($\text{Ca}(\text{OH})_2$) Acid Phosphoric Acid (H_3PO_4)	
	Prepared by Jayesh Madasseri ;HSST Chemistry, HMSHSS Thurakkal	