

ANNUAL EVALUATION MARCH 2020 - STD 9 CHEMISTRY

ANSWER KEY PREPARED BY SAJITHA K

1	Oxygen	P35-V2
2	Sodium bicarbonate	P55 - V2
3	3 pairs	P39 V2
4	Colour of reactants	P54-59 V1
5	Sulphate ion (SO_4^{2-})	P25 -V2
6	a) Double bond (Unsaturated) b) Compound containing carbon and hydrogen are called hydrocarbons	P55,56 V2
7	b) As the size of atom decreases, electronegativity increases c) As the atomic size increases, metallic character increases	P76 V1
8	a) A white curdy precipitate of silver chloride(AgCl) is formed. b) Silver chloride (AgCl)	P44 V2
9	a) H_2CO_3 b) Dry ice	P11, 54 V2
10	<ul style="list-style-type: none"> • Environmental friendly • Preserves the innate nature of the soil. • The micro organisms in the soil are not destroyed. • They are not harmful to other plants and animals • They can be easily made. • Do not cause health problems 	P40 V2
11	a) Dilute hydrochloric acid and Zinc b) $\text{Zn} + 2\text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2$ c) Displacement reaction	P 31 V2
12	a) 2, 8, 3 b) 13 c) Number of neutrons = Mass number – Atomic number = 27 – 13 = 14	P17, 19 V1
13	a) Z b) Noble gases (Inert gases) c) X	P 70, 72 V1 P35, 36 V1
14	a) When carbon monoxide is inhaled, it reacts with the haemoglobin in the blood and forms carboxy haemoglobin. As result, the oxygen carrying capacity of blood decreases leading even to death. b) (Any one) As a gaseous fuel To produce industrial gases like water gas ($\text{CO} + \text{H}_2$) and producer gas ($\text{CO} + \text{N}_2$) As a reducing agent in metallurgy In the manufacture of synthetic petrol, methanol etc.	P 54 V2
15	a) Q b) P	P18, 19 V2

	c) R	
16	<p>a) Potassium permanganate (KMnO_4), hydrochloric acid (HCl)</p> <p>b) Hydrogen chloride vapours coming along with chlorine is removed by passing it through water.</p> <p>c) Sulphuric acid can absorb the water vapour present in chlorine gas when it passed through the concentrated sulphuric acid .</p> <p>d) Bleaching powder is prepared by passing chlorine gas over dry slaked lime.</p>	P41, 42, 43 V2
17	<p>a) Carbon dioxide (CO_2)</p> <p>b) Marble (CaCO_3) is powdered and HCl is concentrated</p> <p>c) To take part in a chemical reaction, molecules should attain a certain minimum kinetic energy. This energy is called threshold energy</p>	P57 V1 P58 V1
18	<p>a) Allotropy is the phenomenon by which the same element exists in different physical forms</p> <p>b) Diamond, graphite</p> <p>c) Diamond - To make ornaments, For cutting glass Graphite - To make pencil lead, To make electrodes of dry cells, As a solid state lubricant</p>	P49, 50 V2
19	<p>a) Chlorofluorocarbon</p> <p>b) Chlorofluorocarbons released into the atmosphere reach the stratosphere and break down by the action of ultraviolet radiation releasing chlorine. This chlorine decomposes ozone molecules into oxygen.</p> <p>c) The depletion of ozone in the atmosphere reduces the absorption of ultraviolet rays. Which causes, skin cancer, sunburn, permanent blindness and cataracts to humans. Plant growth, as well as its physiological and developmental processes, are all affected negatively. Higher temperature on atmosphere Rapid melting of glaciers Sea level will rise. Expansion of tropical diseases.</p>	P38-40 V 2
20	<p>a) Sodium chloride (NaCl)</p> <p>b) Neutralisation reaction</p> <p>c) Acid – sulphuric acid (H_2SO_4) Alkali – Magnesium hydroxide ($\text{Mg}(\text{OH})_2$)</p>	P 15, 16, 20 V2