NEET CHEMISTRY

Topic: S-Block

Q.1 In aqueous solution, the largest ion is -

(1) Na^+ (aq.) (2) Cs^+ (aq.)

(3) Rb^+ (aq.) (4) Li^+ (aq.)

Q.2 Which one is the highest melting halide ?

(1) NaCl (2) NaBr

(3) NaF (4) NaI

Q.3 Alkali metals give colour in Bunsen flame due to

(1) Low ionization potential

(2) low m.p.

(3) softness

(4) one electron in outermost orbit

Q. 4 Glauber's salt is -

(1) $Na_2CO_3.3H_2O$ (2) $Na_2S_2O_3.4H_2O$

(3) $Na_2SO_4.10H_2O$ (4) $Na_2S_2O_3.5H_2O$

Q.5 The material used in photoelectric cells contains-

(1) Cs (2) Li

(3) Be (4) Mg

Q.6 A solution of sodium in liquid ammonia is blue due to the presence of -

(1) sodium atoms

(2) ammonium ions

(3) solvated sodium ions

(4) solvated electrons

Q.7 An element having electronic configuration $1s^2\ 2s^2\ 2p^6,\ 3s^2,\ 3p^6,\ 4s^1$ will form -

(1) Acidic oxide

(2) Basic oxide

(3) Amphoteric oxide

(4) Neutral oxide

Q.8 Which does not exists in solid state -

(1) $LiHCO_3$ (2) $CaCO_3$

(3) $NaHCO_3$ (4) Na_2CO_3

Q.9 Li does not resemble other alkali metals in following properties -

(1) Li_2CO_3 decomposes into oxides while other alkali carbonates are thermally stable

(2) LiCl is predominantly covalent

(3) Li_3N is stable

(4) All

Q.10 The name oxone is given to -

(1) Ozone (2) Sodium peroxide

(3) Sodium potash (4) Sodamide

Q.11 Which of the following does not give flame colouration -

(1) $MgCl_2$ (2) $BaCl_2$

(3) $CaCO_3$ (4) $SrCO_3$

Q.12 The minimum equivalent conductance in fused state is shown by -

(1) $MgCl_2$ (2) $BeCl_2$

(3) $CaCl_2$ (4) $SrCl_2$

Q.13 Which of the following hydrides is not ionic -

(1) CaH_2 (2) BaH_2

(3) SrH_2 (4) BeH_2

Q.14 Which of the following is an amphoteric oxide -

(1) CaO (2) SrO

(3) BeO (4) MgO

Q.15 Plaster of paris is -

(1) $CaSO_4.H_2O$ (2) $CaSO_4.2H_2O$

(3) $(CaSO_4)_2.H_2O$ (4) $CaSO_4.3H_2O$

Q.16 Of the following the commonly used as a laboratory desiccator is -

(1) Na_2CO_3 (2) $CaCl_2$

(3) NaCl (4) None of the above

Q.17 The chemical composition of carnallite is -

(1) $KCl.\ MgCl_2.6H_2O$

(2) $MgSO_4.7H_2O$

(3) $MgCO_3.CaCO_3$

(4) $MgCO_3$

Q.18 The pair whose both species are used in antacid medicinal preparations is -

(1) $NaHCO_3$ and $Mg(OH)_2$

(2) Na_2CO_3 and $Ca(HCO_3)_2$

(3) $Ca(HCO_3)_2$ and $Mg(OH)_2$

(4) $Ca(OH)_2$ and $NaHCO_3$

Q.19 Which of the following statement is false for alkali metals ?

(1) Lithium is the strongest reducing agent

(2) Na is amphoteric in nature

(3) Li^+ is exceptionally small

(4) All alkali metals give blue solution in liquid ammonia

Q.20 Gypsum $CaSO_4.2H_2O$ on heating to about 120ºC forms plaster of pairs which has chemical composition represented by -

(1) $2CaSO_4.3H_2O$ **(2)** $CaSO_4.H_2O$

(3) $2CaSO_4.H_2O$ **(4)** $CaSO_4$

Q.21 The useful by-products, obtained in the Solvay process of manufacture of sodium carbonate, are -

(1) quick lime **(2)** NH_4HCO_3

(3) $CaCl_2$ **(4)** $Ca(OH)_2$

Q.22 On passing excess of CO_2 in lime water, its milky appearance disappears because -

(1) Soluble $Ca(OH)_2$ is formed

(2) Soluble $Ca(HCO_3)_2$ is formed

(3) Reaction becomes reversible

(4) Calcium compound evaporated

Q.23 Consider the following points -

(A) Cs is the strongest reducing agent in IA group element

(B) Be does not form peroxide in II A group elements

(C) The density of potassium is less than sodium

(D) In alkali metals Li, Na, K and Rb, lithium has the minimum value of M.P.

Correct statement are -

(1) (A) & (B) are correct

(2) (A), (B) & (C) are correct

(3) (B) & (C) are correct

(4) (B), (C) & (D) are correct

Q.24 The reaction of sodium with water is highly exothermic the rate of reaction can be lowered by -

(1) Decreasing the temperature

(2) Mixing with alcohol

(3) Mixing with acetic acid

(4) Making an amalgam

Q.25 Thermal stability of hydrides of first group elements follows the order -

(1) LiH > NaH > KH > RbH

(2) LiH > KH > NaH > RbH

(3) LiH > RbH > KH > NaH

(4) LiH > KH > RbH > NaH

Q.26 A piece of magnesium ribbon was heated to redness in an atmosphere of nitrogen and on cooling water was added, the gas evolved was -

(1) Ammonia (2) Hydrogen

(3) Nitrogen (4) Oxygen

Q.27 Which one of the following reactions is not associated with the Solvay process of manufacture of sodium carbonate -

(1) $NH_3 + H_2O + CO_2 \longrightarrow NH_4HCO_3$

(2) $NaCl + NH_4HCO_3 \longrightarrow NaHCO_3 + NH_4Cl$

(3) $2NaHCO_3 \xrightarrow{\Delta} Na_2CO_3 + H_2O + CO_2$

(4) $2NaOH + CO_2 \longrightarrow Na_2CO_3 + H_2O$

Q.28 On prolonged exposure to air,sodium finally changes to -

(1) Na_2CO_3 **(2)** Na_2O

(3) $NaOH$ **(4)** $NaHCO_3$

Q.29 The raw material used in the Solvay process for the manufacture of sodium carbonate comprises

(1) Sodium chloride and carbon dioxide

(2) Ammonia and carbon dioxide

(3) Sodium chloride, limestone and ammonia

(4) Sodium chloride, limestone and carbon dioxide

Q.30 Crystals of washing soda lose nine molecules of water when exposed to dry air. This phenomenon is known as -

(1) Dehydration (2) Hydration

(3) Deliquescence (4) Efflorescence

ANSWER KEY

Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Ans.	4	3	1	3	1	4	2	1	4	2
Que.	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Ans.	1	2	4	3	3	2	1	1	2	3
Que.	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Ans.	3	2	3	4	1	1	4	1	3	4