Date Planned : __ / __ / __	Daily Tutorial Sheet-3	Expected Duration : 30 Min
Actual Date of Attempt : __ / __ / __	Level-1	Exact Duration :_____

31. The reaction of sodium is highly exothermic with water. The rate of reaction is lowered by :

(A) lowering the temperature **(B)** mixing with alcohol

(C) mixing with acetic acid **(D)** making an amalgam

32. RbO_2 is :

(A) Superoxide and paramagnetic **(B)** Superoxide and diamagnetic

(C) Peroxide and paramagnetic **(D)** Peroxide and diamagnetic

33. KOH is preferably used to absorb CO_2 gas because :

(A) $KHCO_3$ is soluble in water while $NaHCO_3$ is sparingly soluble in water

(B) KOH is cheaper than NaOH

(C) KOH is stronger base than NaOH

(D) KOH is more soluble than NaOH in water

34. Washing soda on heating :

(A) Releases CO gas **(B)** Releases CO_2 gas

(C) Releases water vapour **(D)** Both (A) and (B)

35. When sodium hydroxide solution is electrolysed :

(A) hydrogen is discharged at cathode **(B)** hydrogen is discharged at anode

(C) sodium is liberated at anode **(D)** hydrogen is not liberated

36. $LiAlH_4$ is used as :

(A) an oxidizing agent **(B)** a reducing agent

(C) a mordant **(D)** a water softener

37. Sodium carbonate can be manufactured by Solvay process but potassium carbonate cannot be prepared because :

(A) K_2CO_3 is more soluble **(B)** K_2CO_3 is less soluble

(C) $KHCO_3$ is more soluble than $NaHCO_3$ **(D)** $KHCO_3$ is less soluble than $NaHCO_3$

38. Which of the following increases in magnitude as the atomic number of alkali metals increases?

(A) Electronegativity **(B)** First ionization potential

(C) Ionic radius **(D)** Melting point

39. Sodium has ..... as compared to potassium :

(A) less electronegativity **(B)** More ionization potential

(C) larger atomic radius **(D)** lower melting point

40. The metallic lustre exhibited by sodium is explained by :

(A) diffusion of sodium ions **(B)** oscillation of mobile valence electrons

(C) existence of free protons **(D)** existence of body centred cubic lattice

41. In the electrolysis of NaCl solution for the manufacture of NaOH, the ion discharged at graphite cathode is :

(A) Na^+ **(B)** Cl^- **(C)** H^+ **(D)** O^{2-}

42. Among LiCl, RbCl, $BeCl_2$ and $MgCl_2$ the compounds with greatest and least ionic character respectively are :

(A) LiCl, RbCl **(B)** RbCl $BeCl_2$, **(C)** RbCl, $MgCl_2$ **(D)** $MgCl_2$, $BeCl_2$

43. Stable oxide is obtained by heating the carbonate of the elements :

(A) Li **(B)** Na **(C)** K **(D)** Rb

44. Which reacts directly with nitrogen to form nitride ?

(A) Na **(B)** Li **(C)** K **(D)** Rb

45. Which of the following has the highest melting point ?

(A) NaCl **(B)** NaF **(C)** NaBr **(D)** NaI