

CHEMISTRY

SECTION-A

51. Statement I: Hydrogen reacts faster with halogens than deuterium.
Statement II : H_2O has high dielectric constant value,so it is used as a good solvent.
(1)Statement I and II are correct (2)Statement I and II are incorrect
(3) Statement I correct ,Statement II incorrect (4)Statement I incorrect ,Statement II correct
52. Chemically soap is
(1) Sodium stearate (2) Calcium stearate (3) Magnesium stearate(4) Ferric stearate
53. Which of the following reactions requires high temperature and catalyst?
(1) $H_2 + F_2 \rightarrow 2HF$ (2) $H_2 + Cl_2 \rightarrow 2HCl$
(3) $H_2 + Br_2 \rightarrow 2HBr$ (4) $H_2 + I_2 \rightarrow 2HI$
54. $H_2 + CO + R -CH = CH_2 \rightarrow R-CH_2-CH_2-CHO$
This reaction is known as
(1) Hydrogenation (2) Hydroformylation (3) Carbonation (4) Decarboxylation.
55. In ice each oxygen is surrounded by four oxygen atoms in ---- position.
(1) Square planar (2) Tetrahedral (3) Trigonal planar (4) Angular
56. $H_2O + H_2O \rightleftharpoons H_3O^+ + OH^-$. In this reaction water acts as
(I) Bronsted Acid (II) Bronsted Base (III) Amphoteric oxide
(1) I only (2) I, II only (3) II, III only (4) I, II, III
57. The processes I and II are respectively
(I) $CuSO_4 + 5H_2O \longrightarrow CuSO_4 \cdot 5H_2O$
(II) $PCl_3 + 3H_2O \longrightarrow H_3PO_3 + 3HCl$.
(1) Hydration and dehydration (2) Hydration and Hydrolysis
(3) Hydrolysis and Hydrolysis (4) Hydration and hydration.
58. The compound formed when heavy water reacts with CaC_2 is
(1) Acetylene (2) Deuteroacetylene
(3) Hydrogen (4) Calcium hydroxide
59. Electrolysis of 50% H_2SO_4 produces
(1) $H_2S_2O_8$ at anode (2) H_2SO_5 at cathode
(3) H_2 at anode (4) H_2O_2 at anode & Cathode
60. The metal produces H_2 with both dil. HCl and $NaOH_{(aq)}$ is
(1)Mg (2)Ca (3) Fe (4)Zn