Chemistry Model Question Paper - 14

Question 1 :

Mesomeric effect involves delocalisation of

(A) pi electrons

(B) sigma electrons

(C) protons

(D) none of these

Answer: (A)

Question 2 :

Methoxy methane and ethanol are

(A) Position isomers

(B) Chain isomers

(C) Functional isomers

(D) Optical isomers

Answer: (C)

Question 3 :

Mg^{+2} is isoelectronic with

(A) Ca^{2+}

(B) Na^{+}

(C) Zn^{2+}

(D) Cu^{2+}

Answer: (B)

Question 4 :

Molarity of a given orthophosphoric acid solution is 3M. It's normality is

(A) 1 N

(B) 2 N

(C) 0.3 N

(D) 9 N

Answer: (D)

Question 5 :

Mole fraction of the solute in a 1.00 molal aqueous solution is

(A) 1.7700

(B) 0.1770

(C) 0.0177

(D) 0.0344

Answer: (C)

Question 6 :

Molecules of a noble gas do not possess vibrational energy because a noble gas _____.

(A) is chemically inert

(B) is monoatomic

(C) is diamagnetic

(D) has completely filled shells

Answer: (B)

Question 7 :

$N_2 + 3H_2 + 2NH_3$ + heat. What is the effect of the increase of temperature on the equilibrium of the reaction?

(A) equilibrium is shifted to the left

(B) equilibrium is shifted to the right

(C) equilibrium is unaltered

(D) reaction rate does not change

Answer: (A)

Question 8 :

Name the type of the structure of silicate in which one oxygen atom of $[SiO_4]^{4-}$ is shared?

(A) Three dimensional

(B) Linear chain silicate

(C) Sheet silicate

(D) Pyrosilicate

Answer: (D)

Question 9 :

n-propyl bromide on treating with alcoholic KOH produces

(A) propane

(B) propene

(C) propyne

(D) propanol

Answer: (B)

Question 10 :

Of the following complex ions, which is diamagnetic in nature?

(A) $[CoF_6]^{3-}$

(B) $[NiCl_4]^{2-}$

(C) $[Ni(CN)_4]^{2-}$

(D) $[CuCl_4]^{2-}$

Answer: (C)