

Chemistry Model Question Paper - 15

Question 1 :

Of the following which one is classified as polyester polymer?

(A) Nylon-66

(B) Terylene

(C) Backelite

(D) Melamine

Answer: (B)

Question 2 :

One dm³ solution containing 10⁻⁵ moles each of Cl⁻ ions and CrO₄⁻² ions is treated with 10⁻⁴ mole of silver nitrate. Which one of the following observations is made?

$$[K_{SP} \text{Ag}_2 \text{CrO}_4, = 4 \times 10^{-12}]$$

$$[K_{SP} \text{AgCl} = 1 \times 10^{-10}]$$

(A) Silver chromate gets precipitated first.

(B) Precipitation does not occur.

(C) Both silver chromate and silver chloride start precipitating simultaneously.

(D) Silver chloride gets precipitated first.

Answer: (D)

Question 3 :

One gram of silver gets distributed between 10 cm³ of molten zinc and 100 cm³ of molten lead at 800°C. The percent of silver in the zinc layer is approximately _____.

(A) 91

(B) 89

(C) 94

(D) 97

Answer: (D)

Question 4 :

One mole of an organic compound 'A' with the formula C_3H_8O reacts completely with two moles of HI to form X and Y. When 'Y' is boiled with aqueous alkali forms Z.Z

answers the iodoform test. The compound 'A' is _____.

- (A) Propan -1 -o1
- (B) Propan -2 -o1
- (C) methoxyethane
- (D) ethoxyethane

Answer: (C)

Question 5 :

One mole of oxygen at 273 k and one mole of sulphur dioxide at 546 k are taken in two separate containers, then,

- (A) kinetic energy of O_2 > kinetic energy of SO_2 .
- (B) kinetic energy of O_2 < kinetic energy of SO_2 .
- (C) kinetic energy of both are equal.
- (D) None of these

Answer: (B)

Question 6 :

One mole of which of the following has the highest entropy?

(A) liquid nitrogen

(B) hydrogen gas

(C) mercury

(D) diamond

Answer: (B)

Question 7 :

Paracetamol is a/ an

(A) antimalarial

(B) antipyretic

(C) analgesic

(D) both 2 and 3

Answer: (D)

Question 8 :

Peroxide ion _____.

a) is diamagnetic.

b) has five completely filled antibonding molecular orbitals.

c) is isoelectronic with neon.

d) has bond order one.

Which one of these is correct?

(A) a), b) and d)

(B) d) and c)

(C) a) and d)

(D) a), b) and c)

Answer: (C)

Question 9 :

pH value of which one of the following is not equal to one?

(A) 0.05 M H_2SO_4

(B) 0.1 M HNO_3

(C) 50cm³ of 0.4 M HCl +50 cm³ of 0.2M NaOH

(D) 0.1 M CH₃ COOH

Answer: (D)

Question 10 :

Phenol $\xrightarrow{\text{X}}$ forms a tribromo derivative "X" is _____.

(A) bromine in water

(B) bromine in benzene

(C) bromine in carbon tetrachloride at 0°C.

(D) potassium bromide solution

Answer: (A)