Chemistry Model Question Paper - 12

Question 1 :

Dumas' method of estimation of nitrogen 0.35 g of an organic compound gave 55 mL of nitrogen

collected at 300 K temperature and 715 mm pressure. The percentage composition of nitrogen in

the compound would be

(Aqueous tension at 300 K = 15 mm)

(A) 14.45

(B) 15.45

(C) 16.45

(D) 17.45

Answer: (B)

Question 2 :

In Kjeldahl's method, ammonia from 5 g of food neutralizes 30 cm^3 of 0.1 N acid. The percentage

of nitrogen in the food is _____.

(A) 8.4

(B) 0.84

(C) 1.68

(D) 16.8

Answer: (C)

Question 3 :

In order to increase the volume of a gas by 10%, the pressure of the gas should be

(A) increased by 10 %

(B) increased by 1 %

(C) decreased by 10 %

(D) decreased by 1 %

Answer: (B)

Question 4 :

In the brown ring test, the brown colour of the ring is due to

(A) ferrous nitrate

(B) ferric nitrate

(C) a mixture of NO and NO2

(D) nitroso ferrous sulphate

Answer: (C)

Question 5 :

In the electrolytic refining of Zinc, _____.
(A) the impure metal is at the cathode.

(B) graphite is at the anode.

(C) acidified zinc sulphate.is the electrolyte.

(D) the metal ion gets reduced at the anode.

Answer: (A)

Question 6 :

In the ionic equation – Bi O_3^- + 6H+ + Xe– → Bi3+ + 3H2O, the values of X is

(A) 3

(B) 4

(C) 2

(D) 6

Answer: (A)

Question 7 :

In the periodic table metals usually used as catalysts belong to

(A) s – block

(B) p – block

(C) d – block

(D) f – block

Answer: (A)

Question 8 :

In which of the following process, a maximum increase in entropy is observed?

(A) dissolution of salt in water

(B) condensation of water

(C) sublimation of naphthalene

(D) melting of ice

Answer: (C)

Question 9 :

In which of the following, NH_3 is not used?

(A) Group reagent for the analysis of IV group basic radical.

(B) Group reagent for the analysis of IIIgroup basic radical.

(C) Tollen's reagent

(D) Nessler's reagent

Answer: (B)

Question 10 :

In which one of the following, does the given amount of chlorine exert the least pressure in a vessel of

capacity 1 dm3 at 273K?

(A) 0.071 g

(B) 0.0355 g

(C) 0.02 mole

(D) 6.023×10^{21} molecules

Answer: (C)