Inter (Part-I) 2016

Chemistry	Group-I	PAPER
Time: 20 Minutes	(OBJECTIVE TYPE)	Marks: 1

Note: Four possible answers, A, B, C and D to each ques are given. The choice which you think is correct, fill circle in front of that question with Marker or Pen ink the answer-book. Cutting or filling two or more circles result in zero mark in that question.

1-1- Which of the hydrogen halides has the high percentage of ionic character:

(a) HCl (b) HBr
(c) HF √ (d) HI

2- For which system does equilibrium constant, K, units of (concentration)$^{-1}$:

(a) $N_2 + 3H_2 \rightleftharpoons 2NH_3$ (b) $H_2 + I_2 \rightleftharpoons 2HI$
(c) $2NO_2 \rightleftharpoons N_2O_4$ √ (d) $2HF \rightleftharpoons H_2 + F_2$

3- The deviation of a gas from ideal behaviour is maximum at:

(a) –10°C and 5.0 atm √ (b) –10°C and 2.0 atm
(c) 100°C and 2.0 atm (d) 0°C and 2.0 atm

4- 18 g glucose is dissolved in 90 g of water. Th relative lowering of vapour pressure is equal to:

(a) $\frac{1}{5}$ (b) 5.1
(c) $\frac{1}{51}$ √ (d) 6

5- In the ground state of an atom, the electron present:

(a) In the nucleus
(b) In the second shell
(c) Nearest to the nucleus √
(d) Farthest from the nucleus

6- If a strip of Cu metal is placed in a solution of Fe

(a) Cu will be deposited (b) Fe is precipitated
(c) Cu and Fe both dissolve (d) No reaction take p

7- In order to mention the boiling point of water at 110°C, the external pressure should be:

(a) Between 760 torr and 1200 torr √
(b) Between 200 torr and 760 torr
(c) 765 torr (d) 320 torr

8- One mole of SO_2 contains:

(a) 6.02×10^{23} atoms of oxygen
(b) 18.1×10^{23} molecules of SO_2
(c) 6.02×10^{23} atoms of sulphur √
(d) 4 gram atoms of SO_2

9- The net heat change in a chemical reaction is same, whether it is brought about in two or more different ways in one or several steps. It is known as:

(a) Henry's law (b) Joule's principle
(c) Hess's law √ (d) Law of conservation of energy

10- The pH of 10^{-3} mol dm^{-3} of an aqueous solution of H_2SO_4 is:

(a) 3.0 (b) 2.7 √
(c) 2.0 (d) 1.5

11- Quantum number value for 2p orbitals are:

(a) $n = 2, l = 1$ √ (b) $n = 1, l = 2$
(c) $n = 1, l = 0$ (d) $n = 2, l = 0$

12- Solvent extraction method is particularly useful technique for separation, when the product to be separated as:

(a) Non-volatile or thermally unstable
(b) Volatile or thermally stable
(c) Non-volatile or thermally stable
(d) Volatile or thermally unstable √

13- The molecules of CO_2 in dry ice form the:

(a) Ionic crystals (b) Covalent crystals
(c) Molecular crystals √ (d) Metallic crystals

14- The order of the rate of diffusion of gases NH_3, SO_2, Cl_2 and CO_2 is:

(a) $NH_3 > SO_2 > Cl_2 > CO_2$ (b) $NH_3 > CO_2 > SO_2 > Cl_2$ √
(c) $Cl_2 > SO_2 > CO_2 > NH_3$ (d) $NH_3 > CO_2 > Cl_2 > SO_2$

15- The number of bonds in nitrogen molecule is:

(a) One σ and one π (b) One σ and two π √

(c) Three sigma only (d) Two σ and One π

16- In zero order reaction, the rate is independent of:

(a) Temperature of reaction

(b) Concentration of reactants √

(c) Concentration of products

(d) Light

17- 27 g of Al with react completely with how much mass of O_2 to produce Al_2O_3:

(a) 8 g of oxygen (b) 16 g of oxygen

(c) 32 g of oxygen (d) 24 g of oxygen √