Inter (Part-I) 2021

Chemistry	Group-II	PAPER: I
Time: 20 Minutes	(OBJECTIVE TYPE)	Marks: 17

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

1-1- Which of the following is a pseudo solid?

(a) CaF_2 　　　　　　(b) Glass ✓

(c) NaCl 　　　　　　　(d) All of these

2- 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

3- The temperature of a natural plasma is about:

(a) 20000°C ✓ 　　　　(b) 1000°C

(c) 5000°C 　　　　　　(d) 10000°C

4- 18 g glucose is dissolved in 90 g of water, the relative lowering of vapour pressure is:

(a) $\frac{1}{5}$ 　　　　　　　(b) 5.1

(c) $\frac{1}{51}$ ✓ 　　　　　　(d) 6

5- 1-calorie is equivalent to:

(a) 0.4184 J 　　　　　(b) 41.84 J

(c) 418.4 J 　　　　　　(d) 4.184 J ✓

6- Nickel has number of isotopes:

(a) 3 　　　　　　　　　(b) 5 ✓

(c) 7 　　　　　　　　　(d) 2

7- pH of human blood is:

(a) 7.35 ✓ 　　　　　　(b) 6.35

(c) 5.35 　　　　　　　(d) 4.35

8- Bond angles $\alpha = \gamma = 90°$; $\beta \neq 90°$ and axes $a \neq b \neq c$ is for crystal system:

(a) Tetragonal   (b) Hexagonal

(c) Monoclinic ✓   (d) Triclinic

9- If the rate equation of a reaction $2A + B \rightarrow$ Products is, rate = K $[A]^2$ $[B]$ and A is present in large excess, then order is:

(a) 1 ✓   (b) 2

(c) 3   (d) Zero

10- 1 gram formula of NaCl is equal to:

(a) 58.5 g ✓   (b) 23 g

(c) 35.5 g   (d) 12 g

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

(a) 3   (b) 2.7 ✓

(c) 2.0   (d) 1.5

12- Solvent extraction is an equilibrium process and it is controlled by:

(a) Law of mass action

(b) The amount of solvent used

(c) Distribution law ✓   (d) The amount of solute

13- de-Broglie equation is represented as:

(a) $\lambda = \dfrac{h}{mv}$ ✓   (b) $m = \dfrac{h}{\lambda}$

(c) $m = \dfrac{h}{v}$ (d) $\lambda = \dfrac{2h}{mv}$

14- Stronger the oxidizing agent, greater is the:

(a) Oxidation potential   (b) Reduction potential ✓

(c) Redox potential   (d) E.M.F of cell

15- Ionization energy for $Mg \rightarrow Mg^+ + 1e^-$ has $\Delta H =$ ---:

(a) 738 kJ mol$^-$ ✓   (b) 238 kJ mol$^-$

(c) 448 kJ mol$^-$ (d) 138 kJ mol$^-$

16- The velocity of photon is:
   (a) Independent of wavelength ✓
   (b) Depends on wavelength
   (c) Equal to square of its amplitude
   (d) Depends on its source

17- Pressure remaining constant, at which temperature the volume of the gas will become twice of what it is at 0°C:
   (a) 546°C
   (b) 200°C
   (c) 546 K ✓
   (d) 273 K