

Inter (Part-I) 2018

Chemistry	Group-I	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 molecules has zero dipole moment:

- (a) NH_3 (b) CHCl_3
(c) H_2O (d) CO_2 ✓

2- NH_3 shows maximum boiling point among the hydrides of Vth group element due to:

- (a) Very small size of nitrogen
(b) Lone pair of electrons on nitrogen
(c) Enhanced electronegative character of nitrogen. ✓
(d) Pyramidal structure of NH_3

3- Approximate pH of apple is:

- (a) 2.7 (b) 3.1 ✓
(c) 4.2 (d) 4.5

4- 27 g of Al will 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 ✓

5- The rate of reaction:

- (a) Increases as reaction proceeds.
(b) Decreases as reaction proceeds ✓
(c) Remains same as reaction proceeds
(d) May decrease or increase as reaction proceeds

6- When 6d orbital is complete, the entering electron goes into:

- (a) 7s (b) 7p ✓
(c) 7d (d) 7f

- 7- Equal masses of methane and oxygen are mixed in an empty container at 25°C. The fraction of total pressure exerted by oxygen is:
- (a) $\frac{1}{3}$ ✓ (b) $\frac{8}{9}$
(c) $\frac{1}{9}$ (d) $\frac{16}{17}$
- 8- The number of moles of CO₂ which contain 8.0 g of oxygen:
- (a) 0.25 ✓ (b) 0.50
(c) 1.0 (d) 1.50
- 9- If an endothermic reaction is allowed to take place very rapidly in an air, the temperature of surrounding air:
- (a) Remains same (b) Increases
(c) Decreases ✓ (d) Remains unchanged
- 10- An aqueous solution of ethanol in water may have vapour pressure:
- (a) Equal to water
(b) More than that of water ✓
(c) Equal to ethanol
(d) Less than that of water
- 11- The number of bonds in nitrogen molecule is:
- (a) One σ and one π (b) One σ and two π ✓
(c) Three σ only (d) Two σ and one π
- 12- Geometry of diamond is:
- (a) Tetragonal (b) Cubic ✓
(c) Rhombohedral (d) None of these
- 13- Oxidation number of chromium in Cr₂O₃ is:
- (a) +1 (b) +2
(c) +3 ✓ (d) +4
- 14- In the ground state of an atom, the electrons are present:
- (a) In the nucleus
(b) In second shell
(c) Nearest to the nucleus ✓
(d) Farthest from the nucleus

15- The chromatography in which stationary phase is liquid is called:

- (a) Thin layer chromatography
- (b) Partition chromatography ✓
- (c) Adsorption chromatography
- (d) Gel chromatography

16- The pH of human blood is maintained at:

- (a) 7.35 ✓
- (b) 7.53
- (c) 7.63
- (d) 7.73

17- Ideal solutions obey:

- (a) Henry's law
- (b) Avogadro's law
- (c) Raoult's law ✓
- (d) Smith's law

