YASHWANT CLASSES

Head Office: Govind Vihar Tower, Behind Vaishali Cinema, Badlapur (W)

Date : 04-07-2022
Time : 00:24:00
Marks : 40

TEST ID: 119
CHEMISTRY

1.THE SOLID STATE

Single Correct Answer Type

1. In NaCl crystal each Cl^- ion is surrounded by
   a) 4 Na^+ ions b) 6 Na^+ ions
   c) 1 Na^+ ion d) 2 Na^+ ions
2. The co-ordination number of Na in Na_2O is :
   a) 6 b) 4 c) 8 d) 2
3. Which of the following statements is correct?
   a) Silicon doped with boron is an n −type semiconductor
   b) Silicon doped with arsenic is a p −type semiconductor
   c) Metals are good conductors of electricity
   d) Electrical conductivity of semiconductors decreases with increasing temperature
4. The coordination number of Al in the crystalline state of $AlCl_3$is
   a) 2 b) 4 c) 6 d) 8
5. A crystal of Fe_3O_4 is :
   a) Paramagnetic b) Diamagnetic
   c) Ferromagnetic d) Ferromagnetic
6. Sodium metal crystallises at room temperature in a body centred cubic lattice with a cell edge $a = 4.29$ Å. The radius of sodium atom is
   a) 1.40 b) 2.65 c) 1.85 d) 2.15
7. A solid has a bcc structure. If the distance of closest approach between the two atoms is 1.73Å. The edge length of the cell is :
   a) 200 pm b) $\sqrt{3}/\sqrt{2}\,PM$
   c) 142.2 pm d) $\sqrt{2}$ pm
8. A compound of 'A' and 'B' crystallises in a cubic lattice in which 'A' atoms occupy the lattice points at the corners of the cube. The 'B' atoms occupy the centre of each face of the cube. The probable empirical formula of the compound is
   a) AB_2 b) A_3B c) AB d) AB_3
9. Which has no rotation of symmetry?
   a) Hexagonal b) Orthorhombic
   c) Cubic d) Triclinic
10. Schottky defect defines imperfection in the lattice structure of a :
    a) Solid b) Gas
    c) Liquid d) Plasma