CLASS - 12 C
SUBJECT – CHEMISTRY (THEORY)
WORKSHEET – 1   FULL MARKS (20)
CHAPTER – SOLID STATE

THINGS TO REMEMBER

- Types of solid.
- Unit Cell.
- Calculation of radius, edge length, and density.
- Properties of Solids.
- Defects in solids.

Question 1 (10)

a) **Fill in the blanks (4)**
   I)   Amorphous solids are _____ where as crystalline solids are _____.
   II)   The radius of atom in bcc is _____ and in ffc is _____.
   III)   Antiferro magnetic substances have _____ net magnetic moment inspite of ___ electron.
   IV)   The crystal of graphite is made up of _____ while that of sodium chloride is made up of _____.

b) **Answer the following (2*3)**
   I)   Why stoichiometric defects are called intrinsic defects?
   II)   Why potassium chloride gives violet vapours instead of white?
   III)   Why does graphite conduct electricity?

Question 2 (2)

Lead sulphide has fcc crystal, if the edge length of the unit cell is 495 pm calculate the density of the crystal.

Question 3 (2)

Explain the following

A) Schottky defect lowers the density of ionic crystals.
B) What are intrinsic and extrinsic semi conductors.

Question 4 (2)

A)   For a bcc crystal if the edge length of the unit cell is 286 pm calculate the radius of the atom.
B)   What are F-centres in ionic crystals
Question 5 (4)
For a crystal of diamond state the following.
A)   The coordination number of each carbon atom

B) The number of carbon atom present per unit cell.

C) The hybridization of each carbon atom.

D) Type of unit cell of diamond.