

## Questions with Answer Keys

MathonGo

## Q1: 24 Feb (Shift 1) - Numerical

The coordination number of an atom in a body-centered cubic structure is \_\_\_\_ [Assume that the lattice is made up of atoms]

## Q2: 25 Feb (Shift 2) - Numerical

The unit cell of copper corresponds to a face centered cube of edge length  $3.596\text{\AA}$  with one copper atom at each lattice point. The calculated density of copper in  $\text{kg/m}^3$  is \_\_\_\_ [Molar mass of Cu: 63.54 g; Avogadro number  $\equiv 6.022 \times 10^{23}$ ]

## Q3: 26 Feb (Shift 2) - Numerical

The number of octahedral voids per lattice site in a lattice is \_\_\_\_.

(Rounded off to the nearest integer)

