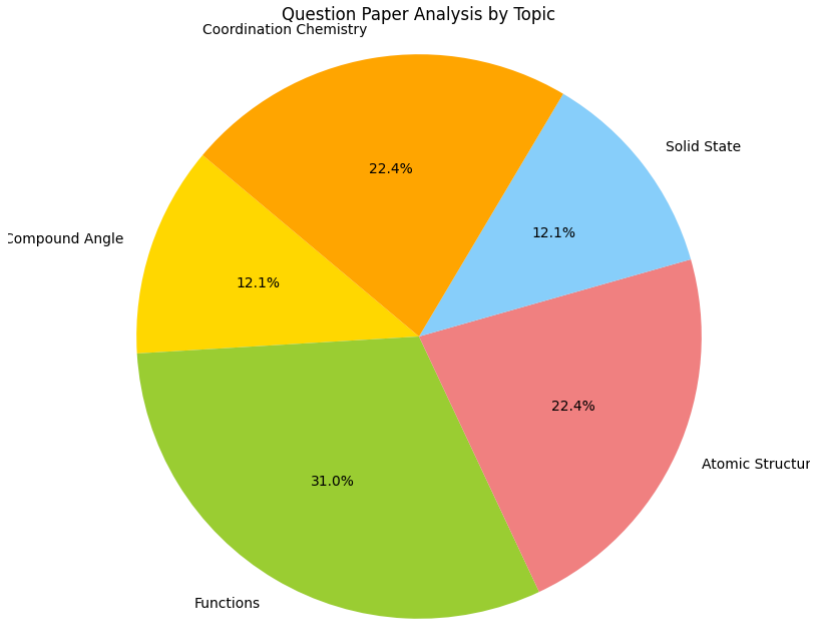
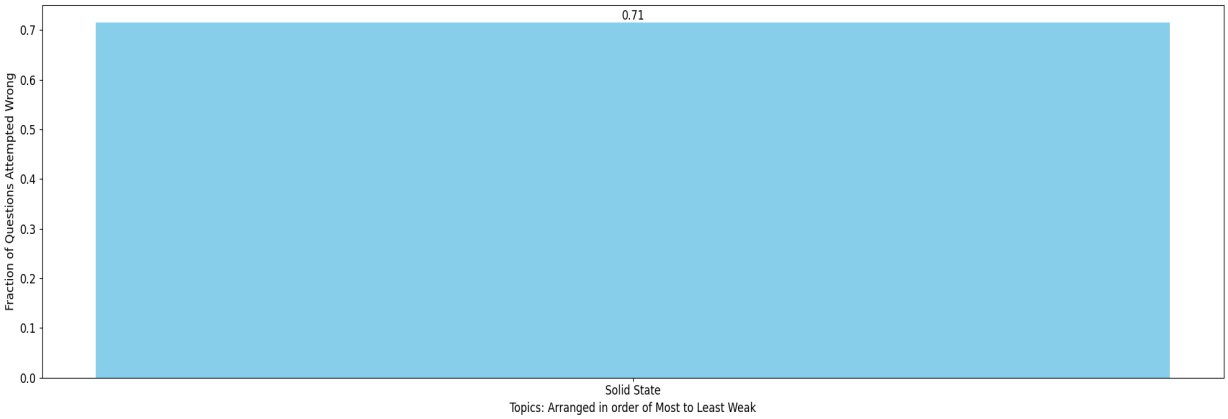
Mahika Total
MLAssist - Personalised DPP

Question Paper Analysis:



Weak Topic Analysis:



Practice Questions:

Solid State:

51. Which kind of defects are introduced by doping?

(A) Dislocation defect (B) Schottky defect

(C) Frenkel defects (D) Electronic defects

15. A metal crystallizes in a body centered cubic lattice (bcc) with the edge of the unit cell 5.2Å. The distance between the two nearest neighbours is

(A) 10.4 Å (B) 4.5 Å (C) 5.2Å (D) 9.0Å

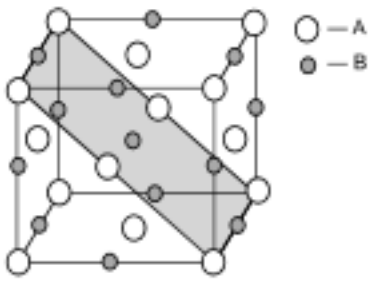
15. Calculate number of oxygen molecules present in a unit cell

(A) 24×10^{23} (B) 12×10^{23} (C) 6×10^{23} (D) 3×10^{23}

8. If the unit cell of a mineral has cubic close packed (ccp) array of oxygen atoms with m fraction of octahedral holes occupied by aluminum ions and n fraction of tetrahedral holes occupied by magnesium ions m and n respectively, are – **[JEE-2015]**

(A) $\frac{1}{2}, \frac{1}{8}$ (B) $1, \frac{1}{4}$ (C) $\frac{1}{2}, \frac{1}{2}$ (D) $\frac{1}{4}, \frac{1}{8}$

2. A crystal is made of particles A and B. A forms FCC packing and B occupies all the octahedral voids. If all the particles along the plane as shown in figure are removed, then, the formula of the crystal would be :



(A) AB (B) A_5B_7 (C) A_7B_5 (D) None of these