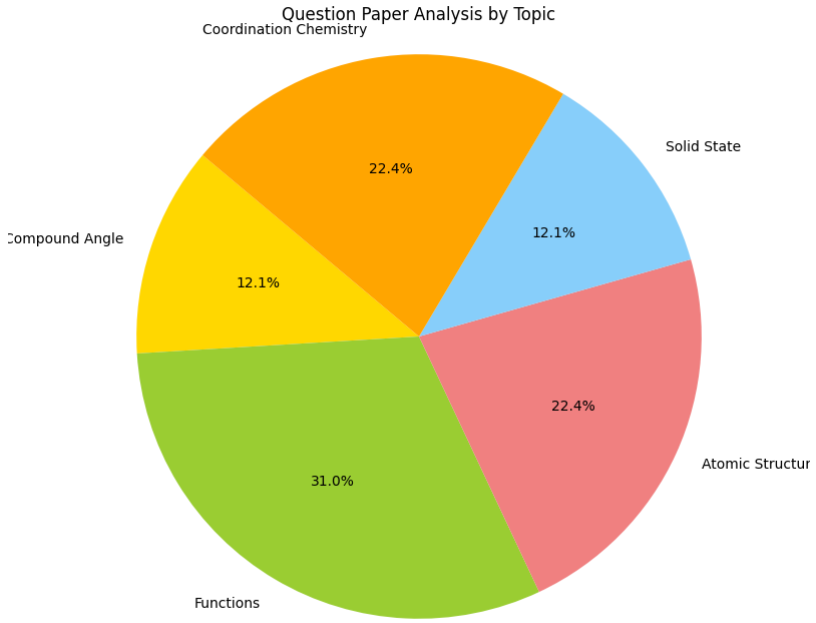
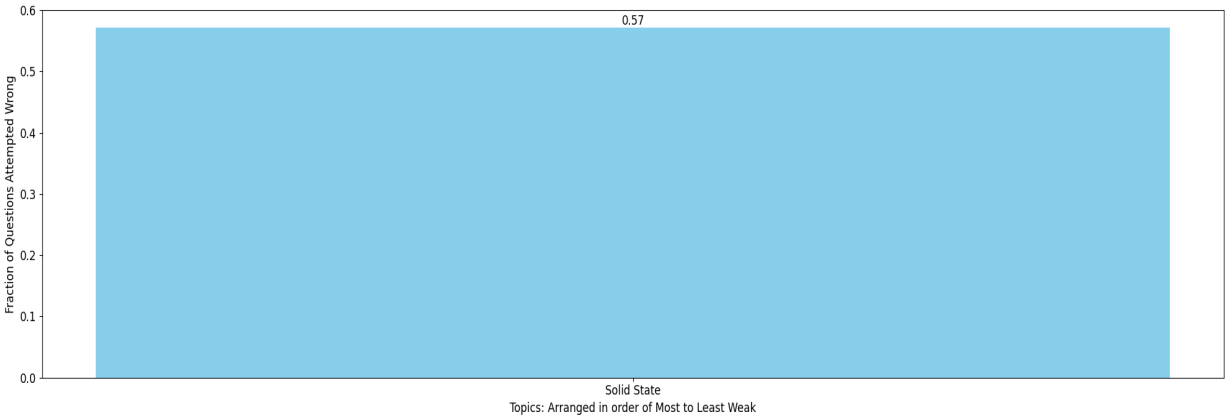
Ritvick Drolia Total
MLAssist - Personalised DPP

Question Paper Analysis:



Weak Topic Analysis:



Practice Questions:

Solid State:

22. (i) AB crystallizes in a rock salt structure with A : B = 1 : 1. The shortest distance between A and B is $Y^{1/3}$ nm. The formula mass of AB is 6.023 Y amu where Y is any arbitrary constant. Find the density in kg m^{-3}. **[JEE–2004]**

(ii) If measured density is 20 kg m^{-3}. Identify the type of point defect.

21. Which one of the following schemes of ordering closed packed sheets of equal sized spheres generate crystal of minimum packing fraction.

(A) ABCABC (B) ABACABAC (C) ABBAABBA (D) ABCBCABCBC

PROBLEMS BASED ON HCP UNIT CELL

44. The no. of atoms per unit cell in B.C.C. & F.C.C. is respectively: **[AIEEE-02]**

(A) 8, 10 (B) 2, 4 (C) 1, 2 (D) 1, 3

15. The two ions A^+ and B^- have radii 88 and 200 pm respectively. In the closed packed crystal of compound AB, predict the co-ordination number of A^+.

18. A metal crystallises in a face centred cubic structure. If the edge length of its unit cell is 'a', the closest approach between two atoms in metallic crystal will be **[Jee-Main (offline)-17]**

(A) $\sqrt{2}$ a (B) $\frac{a}{\sqrt{2}}$ (C) 2a (D) $2\sqrt{2}$ a