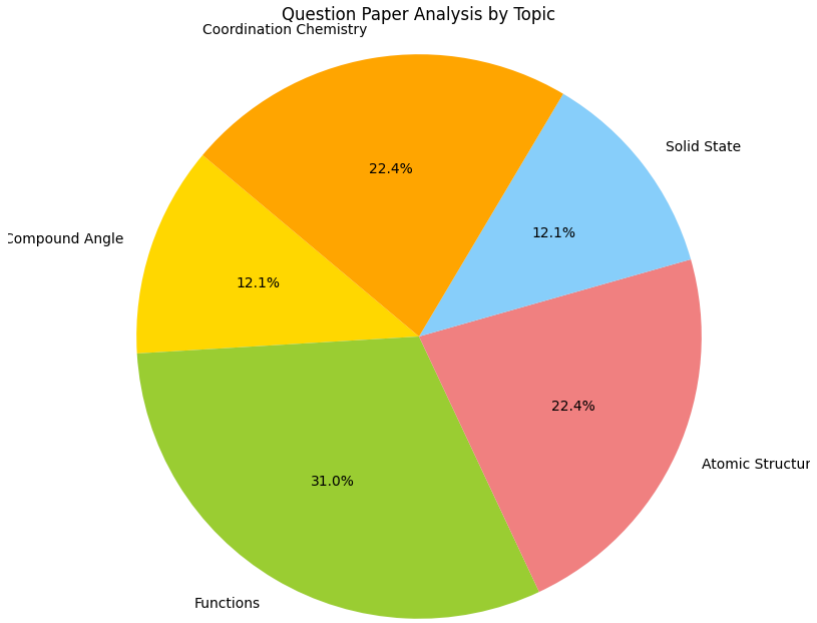
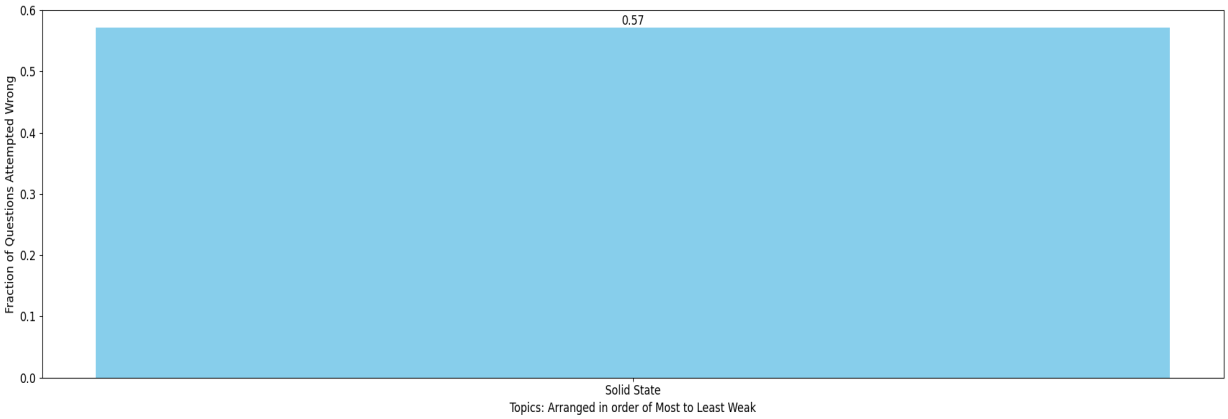
Anurag Tewary Total
MLAssist - Personalised DPP

Question Paper Analysis:



Weak Topic Analysis:



Practice Questions:

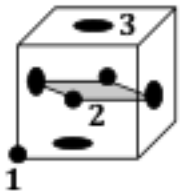
Solid State:

5. A solid A^+ and B^- had NaCl type closed packed structure. If the anion has a radius of 250 pm, what should be the ideal radius of the cation? Can a cation C^+ having a radius of 180 pm be slipped into the tetrahedral site of the crystal of A^+B^-, without disturbing the crystal? Give reasons for your answer.

9. Following figure shows an FCC unit cell with atoms of radius r marked 1(corner), 2(face center), 3(face center). A quadrilateral is also shown by joining the centers of 4 face centered atoms.

Find: (i) The distances between atoms 1 & 2, 2 & 3 and 1 & 3.

(ii) The shape and dimensions of the quadrilateral.



PROBLEMS BASED ON DENSITY

19. A cubic solid is made up of two elements A and B. Atoms B are at the corners of the cube and A at the body centre. What is the formula of compound?

20. A cubic solid is made by atoms A forming close pack arrangement, B occupying one-fourth of tetrahedral void and C occupying half of the octahedral voids. What is the formula of compound?

15. Prove that void space in fluorite structure per unit volume of unit cell is 0.374.