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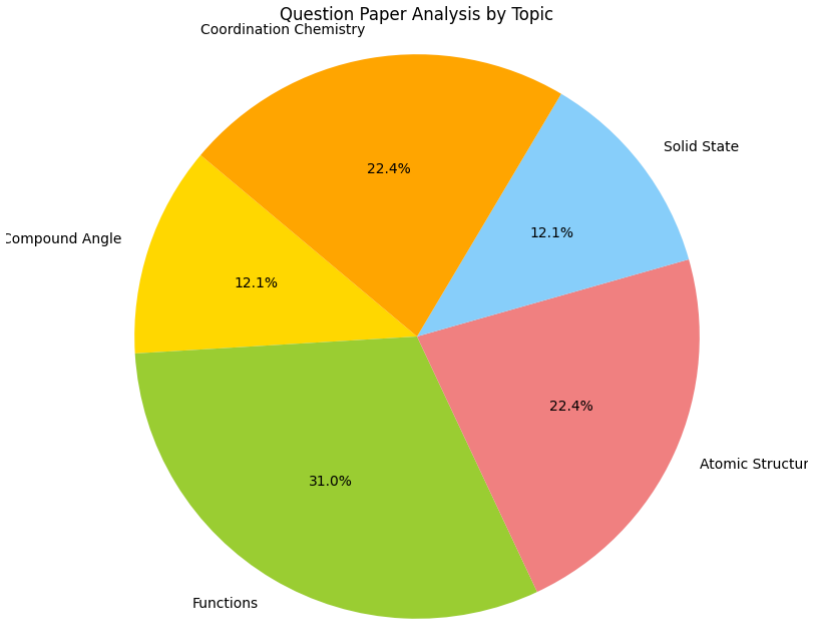
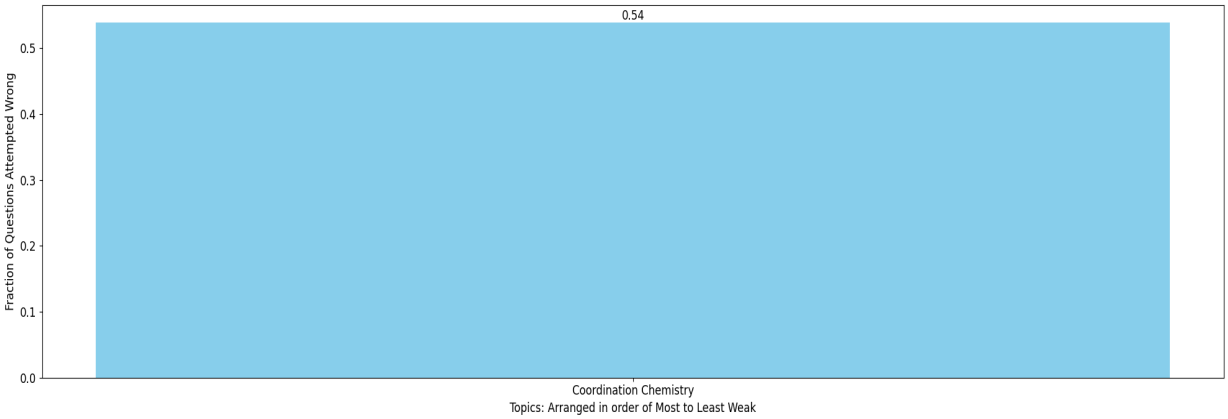
Question Paper Analysis:



Weak Topic Analysis:



Practice Questions:

Coordination Chemistry:

22. $Ti^{3+}(aq)$ is violet while $Ti^{4+}(aq)$ is colourless because -

(A) There is no crystal field effect in Ti^{4+}

(B) There energy difference between $t_{2}g$ and e_g of Ti^{4+} is quite high and does not fall in the visible region.

(C) Ti^{4+} has d^0 configuration.

(D) Ti^{4+} is very small in comparison to Ti^{3+} and hance does not absorb any radiation.

41. Among the following species the one which causes the highest CFSE, Δ_0 as a ligand is :-

[J-MAIN–2014, Online]

(1) CN^- (2) NH_3 (3) CO (4) F^-

12. A d-block element forms octahedral complex but its magnetic moment remains same either in strong field or in weak field ligand. Which of the following is/are **correct**?

(A) Element always forms colourless compound.

(B) Number of electrons in t_{2g} orbitals are higher than in e_g orbitals.

(C) It can have either d^3 or d^8 configuration.

(D) It can have either d^7 or d^8 configuration.

38. Write the IUPAC name of the compound $K_2[Cr(NO)(CN)_4(NH_3)]$. Spin magnetic moment of the complex μ = 1.73 BM. Give the structure of anion. **[JEE 2003]**

26. Among the ligands NH_3,en, CN– and CO the correct order of their increasing field strength, is

[AIEEE–2011]

(1) $CO < NH_3 < en < CN^-$ (2) $NH_3 < en < CN^- < CO$

(3) $CN^- < NH_3 < CO < en$ (4) $en < CN^- < NH_3 < CO$