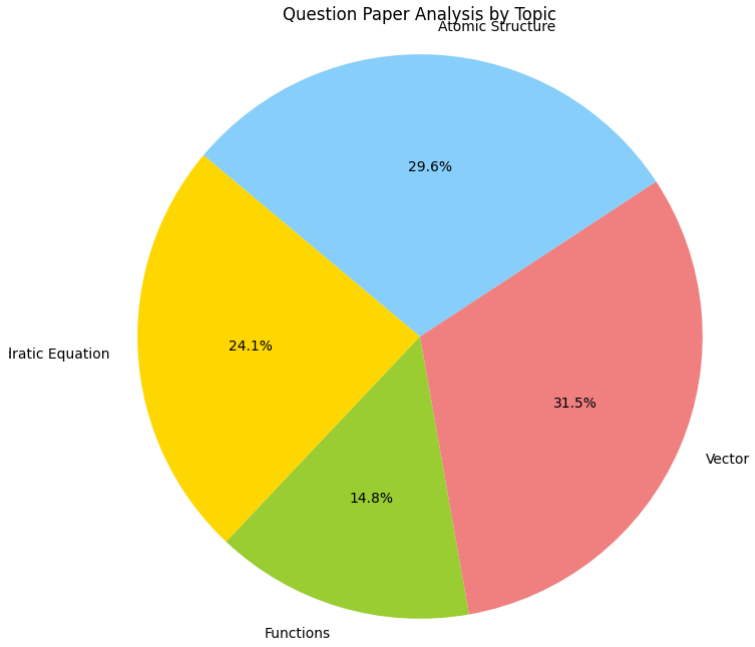
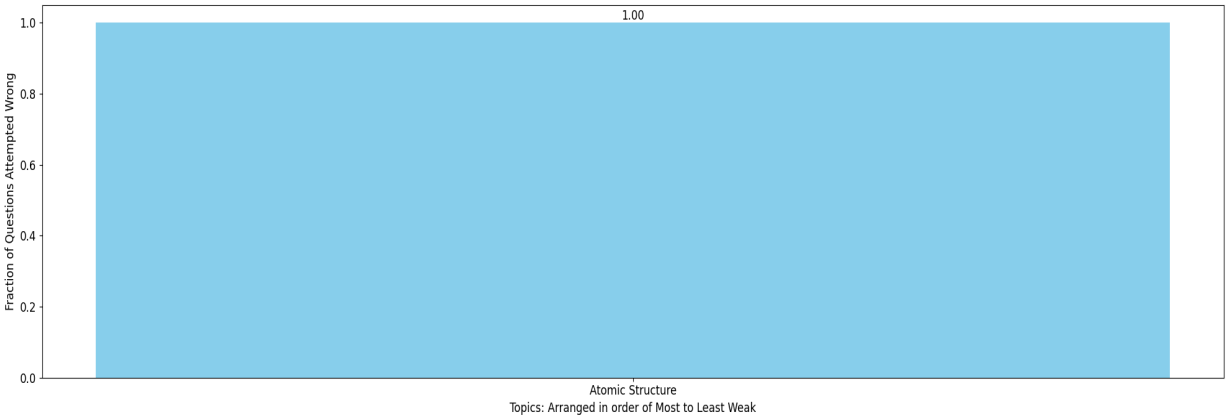
Drishti Garg Total
MLAssist - Personalised DPP

Question Paper Analysis:



Weak Topic Analysis:



Practice Questions:

Atomic Structure:

13. The ionziation enthalpy of hydrogen atom is 1.312×10^6 J mol^{-1}. The energy required to excite the electron in the atom from n =1 to n =2 is **[AIEEE-2008]**

(1) 8.51×10^5 J mol^{-1} (2) 6.56×10^5 J mol^{-1} (3) 7.56×10^5 J mol^{-1} (4) 9.84×10^5 J mol^{-1}

7. In a certain electronic transition in the hydrogen atoms from an initial state (1) to a final state (2), the difference in the orbital radius ($r_1 - r_2$) is 24 times the first Bohr radius. Identify the transition.

(A) $5 \rightarrow 1$ (B) $25 \rightarrow 1$ (C) $8 \rightarrow 3$ (D) $6 \rightarrow 5$

9. A photon of energy 12.75 ev is completely absorbed by a hydrogen atom initially in ground state. The principle quantum number of the excited state is

(A) 1 (B) 3 (C) 4 (D) ∞

41. The quantum number of four electrons are given below : **[JEE Main (April) 2019]**

I. $n = 4, l = 2, m_l = -2, m_s = -\frac{1}{2}$ II. $n = 3, l = 2, m_l = 1, m_s = +\frac{1}{2}$

III. $n = 4, l = 1, m_l = 0, m_s = +\frac{1}{2}$ IV. $n = 3, l = 1, m_l = 1, m_s = -\frac{1}{2}$

(1) I < III < II < IV (2) IV < III < II < I (3) I < II < III < I (4) IV < II < III < I

20.

Column-I		**Column-I**
(A) Electron moving in 2nd orbit in He^+ ion	(P)	Radius of orbit in which electron is moving is 0.529 Å
(B) Electron moving in 3rd orbit in H-atom	(Q)	Total energy of electron is $(-)13.6 \times 9$eV
(C) Electron moving in 1st orbit in Li^{+2} ion	(R)	Velocity of electron is