

CL22_Q1. Write down the Schrodinger wave equation for the hydrogen atom in spherical polar co-ordinates and explain the significance of different quantum numbers

CL22_Q2. Explain the stationary states of the hydrogen atom.

CL22_Q3. Electrons in hydrogen are described by four numbers, n , l , m and m_s . What restrictions (if any) are there on these four numbers?

CL22_Q4. In the analysis of Schrodinger's equation for a hydrogen atom using spherical polar coordinates, elaborate the azimuthal and polar wave function. Also comment on the possible values of magnetic quantum number.

CL22_Q2. Plot the ground-state eigen function of the hydrogen atom as a function of the distance r .