1. Compare the behavior of allowed wave function in regions of zero potential and finite potential associated with a potential barrier.
2. Set up the Schrodinger's wave equation for the allowed regions of a rectangular potential barrier.
3. Elaborate on the conditions under which the transmission become non-zero even if the particle energy is less than the barrier height?
4. With a neat sketch explain the potential distribution associated with a barrier and comment on the de-Broglie wavelength associated with a in regions of zero potential.