IILM UNIVERSITY

Assignment No. : 02

(Module 2: Introduction to Quantum Physics)

Subject	Physics	Subject Code	UBS1002

SHORT QUESTIONS

1. Explain de-broglie's hypothesis.
2. Explain the wave function ψ.
3. Explain modified and unmodified radiations in Compton Effect.
4. Determine the de-broglie wavelength of a photon.
5. Briefly explain eigen values and eigen fuctions.

LONG QUESTIONS

6. Explain physical significance of Schrödinger wave function. Derive Schrodinger time independent wave equation.
7. Explain the normalized wave function. Derive Time-dependent Schrodinger equation.
8. Obtain expressions for the energy eigen values and normalized wave function for a particle confined in an infinitely deep potential well/one dimensional box.
9. Explain tunneling effect in quantum mechanics.
10. Explain Quantum computing. Why we need quantum computing?