**Module 5 – Nuclear and Atomic Physics: Quiz 4b**

1. Light exhibits a wave-particle duality. An apple does not exhibit wave like properties because…. (EXPLAIN your reasoning)
2. apples have a large mass
3. apples are made of particles
4. apples do not travel at speeds close to the speed of light
5. on Earth, gravity acts on particles like apples, but not waves
6. the laws of quantum mechanics can only be applied to subatomic particles
7. Give two examples (one for particles one for waves) of how light can act as both a wave and a particle.

Answers:

1. Light exhibits a wave-particle duality. An apple does not exhibit wave like properties because….
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1. Particle: Scattering, Photoelectric Effect Wave: Diffraction, Interference