**AP QUESTIONS**

Q1. The photon model of light can explain which of the following better than the wave model

1. Interference
2. Refraction
3. Polarization
4. Photoelectric emission --Correct

Q2. Interference and Diffraction can be explained by

1. The wave theory only --Correct
2. The particle theory only
3. Neither
4. Both

Q3. A wave source of constant frequency sends a wave through a tight string of uniform density with a speed V and wavelength L. The tension is then relaxed to half its initial tension. The speed of the wave is now

1. 1/sqrt(2) \* V --Correct
2. Sqrt(2)\*V
3. V
4. 2V
5. 4V

Q4. If the particles of the medium are vibrating to and fro in the same direction of energy transport, then the wave is a \_\_\_\_ wave.

1. Longitudinal --Correct
2. Sound
3. Standing
4. Transverse