1. Compton shift depends on which of the following -
2. The pumping process in He-Ne Laser is
3. The optical cavity consists of
4. Which one of the following statements best describes stimulated emission in a laser
5. The rate of absorption process is proportional to
6. Find the ratio of the population of two states in a HeNe Laser that produces a wavelength lamda = 6328 A at T = 27°C
7. If the generalised coordinates had the dimension of velocity then generalised velocity has a dimension of
8. The constraint in a rigid body is
9. For Lagrangian of any system the following is true
10. The Lagrangian function is defined by
11. As waves length gets longer, the laser light can be focused to
12. In a material at 400K, two energy levels have a wavelength separation. Determine the ratio of upper of lower energy level occupation densities when the material is in thermal equilibrium
13. The expression for Compton shift is __ (ø is the angle at which the photon scatters with respect to incident photon direction)
14. The surface temperature of the sun is about 500K. Assuming that the sun radiates like an ideal blackbody, which of the following wavelength does the peak of the solar spectrum occur ? (Assume the constant value of 2.898 meter Kelvin)
15. Why is laser monochromatic
16. Electrons are accelerated in television tubes at about 10kV. Which of the following kind of waves are produced ?
17. Lagrange's equation of motion of an electrical circuit comprising an inductance L and capacitance C (the condenser is charged to q coulombs and the current owning in the circuit is I amperes) is
18. Virtual displacement means in the sense that