

Chapter No. 9

- The bending of light around the sharp edges of an obstacle is called
 - refraction
 - polarization
 - interference
 - diffraction
- The angle between ray of light and wave front is
 - 0°
 - 60°
 - 90°
 - 120°
- The equation of Michelson's Interferometer is:
 - $L = \frac{m\lambda}{2}$
 - $L = \frac{m\lambda}{4}$
 - $L = m\lambda$
 - $L = 2m\lambda$
- The effective path difference between two reflected beams in x-rays diffraction in crystals is:
 - $d \sin \Theta$
 - $2 d \sin \Theta$
 - $d \sin (\Theta / 2)$
 - $d \sin (2 \Theta)$
- Longitudinal waves do not exhibit:
 - Reflection
 - Refraction
 - Diffraction
 - Polarization
- Wavelength of X-rays is of the order of:
 - 10^{-10} m
 - 10^{-8} m
 - 10^{-6} m
 - 10^{-4} m
- Oscillating charge produces:
 - Mechanical waves
 - Electromagnetic waves
 - Matter waves
 - Longitudinal waves
- The refractive index of water is 1.33. The speed of light in water is:
 - 3×10^8 m/s
 - 1.8×10^8 m/s
 - 2.3×10^8 m/s
 - Zero
- The distance between two consecutive wave fronts is called:
 - Time period
 - Frequency
 - Wavelength
 - Displacement
- When one mirror of Michelson interferometer is moved by a distance of 0.5 mm, 2000 fringes are observed, the wavelength of light used is
 - 5000 m
 - 5000 A°
 - 2000 A°
 - 500 cm
- The process of confining the beam of light to vibrate in one plane is called
 - polarization
 - interference
 - diffraction
 - total internal reflection