

For More Questions [Click Here](#)

1. Infrared radiation was discovered in 1860 by:

- (a) William Wallaston
- (b) **William Herschel**
- (c) William Roentgen
- (d) Thomas Young

2. If $\lambda_v, \lambda_x > \lambda_m$ represents the wavelengths of visible light, X-rays and microwaves respectively, then:

- (a) $\lambda_m > \lambda_x > \lambda_v$
- (b) **$\lambda_m > \lambda_v > \lambda_x$**
- (c) $\lambda_v > \lambda_x > \lambda_m$
- (d) $\lambda_v > \lambda_m > \lambda_x$

3. Which of the following rays is emitted by a human body?

- (a) X-rays
- (b) Visible rays
- (c) UV-rays
- (d) **IR-rays**
- (e) None of these

4. The wavelength of X-rays is of the order of:

- (a) 10^{-3} m
- (b) 10^{-5} m
- (c) **10^{-10} m**

(d) 10^{-12}

5. In a plane electromagnetic wave, the electric field oscillates sinusoidally at a frequency of 2.0×10^{10} Hz and amplitude 48 Vm^{-1} . The wavelength of the wave is:

(a) 1.5 m

(b) 1.5×10^{-1} m

(c) 1.5×10^{-2}

(d) 1.5×10^{-3} m

6. The amplitude of electric field in a parallel light beam of intensity 4 Wm^{-2} is:

(a) 35.5 NC^{-1}

(b) 45.5 NC^{-1}

(c) 49.5 NC^{-1}

(d) 55.5 NC^{-1}

7. A free electron is placed in the path of a plane electromagnetic wave. The electron will start moving:

(a) **along the electric field**

(b) along the magnetic field

(c) along the direction of propagation of the wave

(d) in a plane containing the magnetic field and the direction of propagation

8. Speed of electromagnetic waves is same

(a) for all wavelengths

(b) in all media

(c) **for all intensities**

(d) for all frequencies

9. Electromagnetic waves are transverse in nature is evident by:

- (a) **polarization**
- (b) interference
- (c) reflection
- (d) diffraction

10. Electromagnetic waves do not transport:

- (a) energy
- (b) **charge**
- (c) momentum
- (d) information