

Historical Milestones in Optics

History Of Optics · Practice Test · 8 Questions

1. Which 11th-century polymath authored the 'Book of Optics' (Kitab al-Manazir), which correctly argued that vision occurs when light reflects off objects into the eye?

- A) Ibn al-Haytham
- B) Avicenna
- C) Al-Farabi
- D) Al-Biruni

2. In 1676, who became the first person to measure the speed of light by observing the eclipses of Jupiter's moon, Io?

- A) Christiaan Huygens
- B) Ole Rømer
- C) Isaac Newton
- D) Galileo Galilei

3. The concept of 'Fresnel diffraction' was developed in 1818 to support which theory of light?

- A) Corpuscular theory
- B) Emission theory
- C) Wave theory
- D) Quantum theory

4. Which scientist conducted the 1850 experiment that measured the speed of light in water, proving it traveled slower than in air and thus refuting Newton's corpuscular theory?

- A) Hippolyte Fizeau
- B) Léon Foucault
- C) Augustin-Jean Fresnel
- D) Thomas Young

5. Who received the 1921 Nobel Prize in Physics specifically for his discovery of the law of the photoelectric effect, a cornerstone of quantum optics?

- A) Max Planck
- B) Niels Bohr
- C) Albert Einstein
- D) Philipp Lenard

6. In 1907, which physicist was awarded the Nobel Prize for his invention of the 'interferometer' and the subsequent precision optical measurements of the speed of light?

- A) Albert A. Michelson
- B) Edward W. Morley
- C) Hendrik Lorentz
- D) William Thomson

7. In 1801, Thomas Young performed a landmark experiment that demonstrated the interference of light, providing strong evidence for which property of light?

- A) Particle duality
- B) Rectilinear propagation
- C) Diffraction
- D) Wave superposition

8. The invention of the 'Achromatic Doublet' lens, which significantly reduced chromatic aberration, is historically attributed to which 18th-century optician?

- A) Chester Moore Hall
- B) John Dollond
- C) Jesse Ramsden
- D) Joseph von Fraunhofer