

Optics and Light Knowledge Quiz

Optics · Practice Test · 10 Questions

1. What is the term for the bending of light as it passes from one transparent medium into another?

- A) Reflection
- B) Refraction
- C) Diffraction
- D) Absorption

2. What are the three primary colors of light in the additive color model?

- A) Red, Yellow, Blue
- B) Red, Green, Blue
- C) Cyan, Magenta, Yellow
- D) Orange, Green, Purple

3. Which type of lens is thicker in the center than at the edges and brings light rays together to a point?

- A) Convex lens
- B) Concave lens
- C) Flat lens
- D) Cylindrical lens

4. What phenomenon causes white light to separate into a spectrum of colors when passing through a glass prism?

- A) Polarization
- B) Dispersion
- C) Interference
- D) Total internal reflection

5. What is the approximate speed of light in a vacuum?

- A) 300,000 meters per second
- B) 300,000 kilometers per second
- C) 30,000 kilometers per second
- D) 3,000,000 kilometers per second

6. Which part of the human eye controls the amount of light entering by adjusting the size of the pupil?

- A) Retina
- B) Cornea
- C) Iris
- D) Optic nerve

7. What type of mirror curves inward like the inside of a bowl?

- A) Convex mirror
- B) Concave mirror
- C) Plane mirror
- D) Flat mirror

8. Which optical instrument uses mirrors to allow a user to see over or around obstacles?

- A) Microscope
- B) Telescope
- C) Periscope
- D) Stethoscope

9. Light waves are classified as which type of wave?

- A) Mechanical waves
- B) Sound waves
- C) Electromagnetic waves
- D) Ocean waves

10. What type of optical instrument uses lenses to magnify very small, nearby objects?

- A) Microscope
- B) Telescope
- C) Periscope
- D) Binoculars