

PRACTICE TEST

I. True or False (10 points)

Statements	T/F
1. Refraction occurs when light bounces off a surface.	
2. Convex lenses always produce real images.	
3. The cornea and lens of the eye focus light onto the retina.	
4. A pinhole camera forms an upright image.	
5. Concave lenses bend light away from the central axis, causing divergence.	
6. The retina is responsible for responding to light through rods and cones.	
7. Morse code represents a series of letters and numbers using dashes and dots.	
8. Electromagnetic waves are used only for TV communication.	
9. The pupil is a muscle that controls the size of the iris.	
10. Smooth surfaces produce specular reflection.	

II. Match the Following (15 points)

Answers	Column A	Column B
1.	Cones	A. Rays cross
2.	Transmitter	B. Controls pupil size
3.	Concave lenses	C. Wireless keyboard
4.	Rods	D. Sensitive to bright light and color
5.	Focus	E. Diverging
6.	Reflection	F. Light bounces off a surface
7.	Cornea	G. Transparent outer eye part
8.	Convex lenses	H. Converging
9.	Medium	I. Material
10.	Focal length	J. Distance to focus

III. Multiple-Choice Questions (15 points)

1. What happens when light passes from one medium to another?
2. Which part of the eye controls the size of the pupil?
3. Which lens type converges light rays?
4. What is the distance between the center of a lens and its focus called?
5. What material in cameras is photosensitive?
6. What type of image does a flat mirror produce?
7. What do electromagnetic waves enable?
8. Which of the following is NOT true about rods in the retina?
9. What does a prism do?
10. Which scientist proved Maxwell's prediction of electromagnetic waves?

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IV. Short Answer Questions (20 points)

1. Describe the image formed in a convex lens when the object is placed inside the focal length.

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2. Explain why a pencil appears bent in a glass of water.

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3. How does a pinhole camera form an image?

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4. Why are electromagnetic waves significant in communication?

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5. How does the human eye process light to form an image?

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V. Fill in the Blanks (15 points)

1. The retina responds to light through rods and _____.
2. The _____ is a hole in the eye that allows light to enter.
3. Concave lenses are _____ because they bend light away from a central axis.
4. _____ lenses converge light toward a central axis.
5. The _____ in cameras detects light and creates images.
6. The Morse code is a series of dots and dashes representing a _____.
7. When light passes from one medium to another, it bends. This is called _____.
8. The bending of light through a prism produces a _____.
9. James Clerk Maxwell predicted the existence of _____.
10. Focal length is the _____ between the lens center and its focus.

Good luck :3