Chapter10	)							
Optical Ins	strument		Exercise					
The size of an obje ( <b>A)</b> actual size of the ( <b>C)</b> aperture of the	ect as perceived by an eye he object pupil	e depends primarily on <b>(B)</b> distance of t <b>(D)</b> size of the in	nds primarily on ( <b>B</b> )distance of the object from the eye ( <b>D</b> )size of the image formed on the retina					
When objects at d <b>(A)</b> The focal lengt <b>(C)</b> The radius of c	ifferent distances are see h of the eye lens. urvature of the eye lens.	n by the eye, which of t <b>(B)</b> The object o <b>(D)</b> The image o	ie eye, which of the following remain constant? (B)The object distance from the eye lens. (D)The image distance from the eye lens.					
Which of the follo (A)To convert ner (C)To reduce the i	wing is a role of retina? ve signal into light intensity of light	<b>(B)</b> To convert t <b>(D)</b> To increase	<b>(B)</b> To convert the light into nerve signal <b>(D)</b> To increase the intensity of light					
An object is to be a be placed to produ <b>(A)</b> 8.5 cm	seen through a simple mi uce maximum angular ma <b>(B)</b> 7.5 cm	icroscope of focal length agnification? (The least <b>(C)</b> 6.5 cm	n 10 cm. Where should the object distance for clear vision is 30 cm). <b>(D)</b> 9.5 cm					
A man is looking at a small object placed at his near point. Without altering the position of his eye or the object, he puts a simple microscope of magnifying power 5 <i>X</i> before his eyes. The angular magnification achieved is (A) 5 (B)2.5 (C)1 (D) 0.2								
A simple microsco (25 cm) of a norm <b>(A)</b> 8 cm	ope has a magnifying pow al eye. What is its focal le <b>(B)</b> 2.5 cm	ver of 3.0 when the imag ength? <b>(C)</b> 12.5 cm	ge is formed at the near point <b>(D)</b> 8.3 cm					
A normal eye has most strained?	retina 2 cm behind the ey	ye-lens. What is the pow	ver of the eye-lens when the eye is					
	Chapter10 Optical Ins The size of an obje (A)actual size of the (C)aperture of the When objects at d (A)The focal lengt (C)The radius of c Which of the follor (A)To convert ner (C)To reduce the i An object is to be s be placed to produc (A)8.5 cm A man is looking a the object, he pur magnification ach (A) 5 A simple microsco (25 cm) of a norm (A)8 cm A normal eye has most strained? (A)44D	Chapter10   Optical Instrument   The size of an object as perceived by an eye   (A)actual size of the object   (C)aperture of the pupil   When objects at different distances are see   (A)The focal length of the eye lens.   (C)The radius of curvature of the eye lens.   (A)To convert nerve signal into light   (C)To reduce the intensity of light   An object is to be seen through a simple mit be placed to produce maximum angular ma	Chapter10         Dptical Instrument         The size of an object as perceived by an eye depends primarily on (A)actual size of the object (D) size of the in (D) the nobjects at different distances are seen by the eye, which of the (A)The focal length of the eye lens. (B) The object of (C) The radius of curvature of the eye lens. (D) The image of (C) The radius of curvature of the eye lens. (D) The image of (C) The radius of curvature of the eye lens. (D) The image of (C) To reduce the intensity of light (D) To increase of (C) To reduce the intensity of light (D) To increase of (C) To reduce the intensity of light (D) To increase of (C) To reduce the intensity of light (D) To increase of (A) so the puds at a small object placed at his near point. Without the object, he puts a simple microscope of magnifying power magnification achieved is (A) 5 (B) 2.5 (C) 1         A simple microscope has a magnifying power of 3.0 when the image (25 cm) of a normal eye. What is its focal length? (A) 8 cm (B) 2.5 cm (C) 12.5 cm         A normal eye has retina 2 cm behind the eye-lens. What is the power most strained? (A) 4 (B) (C) 64 D					

**Q.8** A person looks at different trees in an open space with the following details. Arrange the trees in decreasing order of their apparent sizes.

Tree	Height (m)	) Distance from the eye (m)			
А	2.0	50			
В	2.5	80			
С	1.8	70			
D	2.8	100			

(A)A > B > C > D (B)A > B > D > C (C)B > D > A > C (D)D > B > C > D

**Q.9** Calculate the length of the tube of a simple microscope, if objective and eyepiece focal lengths are 0.5 cm and 4 cm. Given that, the magnifying power of a relaxed eye is 30.

(A)7cm(B)14cm(C)3.5cm(D)9cmQ.10Choose the incorrect statement from the given options.(D)9cm

(A)Magnifying power of violet colour is more than green light
(B)Magnifying power of violet colour is more than red light
(C)Magnifying power of red colour is more than the blue light
(D)Magnifying power of violet colour is more than yellow light

## ANSWER KEY

Q.	1	2	3	4	5	6	7	8	9	10
Sol.	(D)	(D)	(B)	(B)	(C)	(C)	(B)	(B)	(A)	(C)