



PHYSICS

BOOKS - PSEB

THE HUMAN EYE AND THE COLOURFUL WORLD

Exercise

1. The human eye can focus object at different distances by adjusting the focal length of the

eye lens this is due to:

- A. presbyopia.
- B. accommodation.
- C. near-sightedness.
- D. far-sightedness

Answer:



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2. The human eye forms the image of an object at its:

A. cornea.

B. iris.

C. pupil.

D. retina.

Answer:



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3. The least distance of distinct vision for a young adult with normal vision is about:

A. 25 m.

B. 2.5 cm.

C. 25 cm.

D. 2.5 m.

Answer:



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4. The change in focal length of an eye lens is caused by the action of the:

A. pupil.

B. retina.

C. ciliary muscles.

D. iris.

Answer:



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5. A person needs a lens of power -5.5 d for correcting his distant vision. For correcting his near vision he needs a lens of power $+1.5 \text{ D}$. What is the focal length of lens required for correcting (i) distant and (ii) near vision?



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6. The far point of a myopic person is 80 cm in front of the eye. What is the nature and power of the lens required to correct the problem?



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7. The near point of a hypermetropia eye is 1 m
find the power of the lens required to correct
this defect . Assume that near point of the
normal eye is 25 cm



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8. Why is a normal eye not able to see clearly
the objects placed closer than 25 cm?



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9. What happens to the image distance in the eye when we increase the distance of an object from the eye?



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10. Why do stars twinkle?



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11. Explain why the planets do not twinkle.



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12. Why does the sun appear reddish in the morning (as well as in evening)?



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13. Why does the sky appears dark instead of blue to an astronaut?



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