Human Eye and Colourful World - Important Questions

Important Questions Notes Previous Years Questions

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1. The far point of a human eye has been shifted to 2 m from infinity.
    1. Name the eye defect the person is suffering from & also write its direction.
    2. Draw a ray diagram for its correction.
    3. Find the power of the lens required to correct this defect.
2. Name the color of most deviated ray in a prism, when white light is incident.
3. Explain the phenomenon of rainbow formation with the help of ray diagram.
4. A star sometimes appears brighter & some other times fainter. What is this effect called? State the reason for this effect.
5. A student cannot see a chart hanging on a wall placed at a distance of 3 m from him. Name the defect of vision he is suffering from. How can it be corrected? Draw ray diagrams for the
    1. defect of vision and also
    2. for its correction.
6. What is the nature of the image formed on retina?
7. What eye defect is hypermetropia? Describe with a ray diagram how this defect of vision can be corrected by using an appropriate lens.
8. The near point of a human eye has been shifted to 80 cm from 25 cm.
    1. Name the eye defect the person is suffering from and also write its correction.
    2. Draw a ray diagram for its correction.
    3. Find the power of the lens required to correct this defect.
9. Why do stars twinkle but a planet don't?
10. Why does the sun appear reddish during morning and evening time?
11. .
    1. A myopic person has been using spectacles of power -1.0 D for distant vision. During old age he also needs to use separate reading glass of power +2.0 D. Explain what may have happened.
    2. A man with normal near point (25 cm) reads a book with small print using a magnifying glass, a thin convex lens of focal length 5 cm. What is the closest and farthest distance at which he can read the book when viewing through the magnifying glass.