**GRADE X**

**PHYSICS WORKSHEET**

**HUMAN EYE AND COLOURFUL WORLD**

1. If Ram, a myopic person uses spectacles of power – 0.5 D, then what will be the distance of far point of his eye?
2. Parthiv 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 are the closest and farthest distances at which he can read the book viewing through the magnifying glass?
3. Make a diagram to show how hypermetropia is corrected. The near point of a hypermetropic eye is 0.8 m. What is the power of the lens required to correct this defect? Assume that the near point of the normal eye is 25 cm.
4. The far point of a myopic person is 120 cm in front of the eye. What is the nature and power of the lens required to correct the problem?
5. The near point of a hypermetropic eye is 1 m. What is the nature and power of the lens required to correct this defect? [Assume that the near point of the normal eye is 25 cm.]
6. An eye has a far point of 2 m. What type of lens in spectacles would be needed to increase the far point to infinity? Also calculate the power of the lens required.
7. An eye has a near point distance of 0.75 m. What kind of lens in spectacles would be needed to reduce the near point distance to 0.25 m? Also calculate the power of the lens required.