

Ch-10 The Human Eye and the Colourful World

1. The ability of an eye to focus both near and distant objects by adjusting its focal length is called the power of accommodation of an eye.
2. The smallest distance at which an eye can see objects clearly without strain, is called the near point of an eye or the least distance of distinct vision. It is 25 cm for a normal eye.
3. The farthest point upto which an eye can see objects clearly is called the far point of an eye. It is infinity for a normal eye.
4. The splitting of white light into its component colours is called dispersion.
5. The scattering of light by the colloidal particles of a medium due to which the path of the light becomes visible is known as Tyndall effect.
6. Scattering of light causes blue colour of the sky, reddening of the sun at sunrise and sunset.
7. There are 3 common refractive defects of vision –
 - a. Myopia or near sightedness –
 - i. Person with myopia can see the nearby objects clearly but cannot see the distant objects distinctly.
 - ii. The defect can be corrected by using concave lens of suitable focal length.
 - b. Hypermetropia or far sightedness –
 - i. Person with hypermetropia can see distant objects clearly but cannot see nearby objects clearly.
 - ii. The defect can be corrected by using convex lens of suitable focal length.
 - c. Presbyopia –
 - i. Decrease in power of accommodation due to ageing.
 - ii. The defect can be corrected by using bifocal lenses.