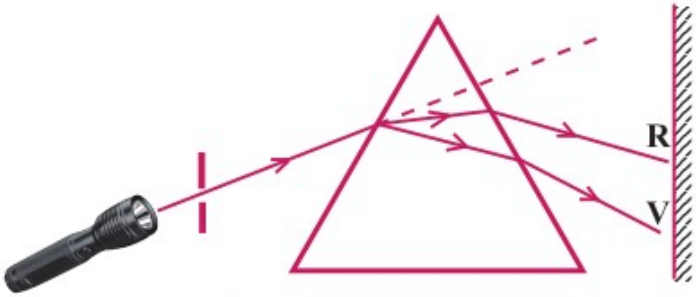
PHYSICS - X-PART-3 CLASS 50

Dispersion of light



*** What are the colours seen on the screen?**

VIBGYOR

Violet (V)
Indigo (I)
Blue (B)
Green (G)
Yellow (Y)
Orange (O)
Red (R)

*** Which colour deviates the most?**

Violet

*** Which colour deviates least?**

Red

*** What may be the reason behind this difference in deviation?**

Difference in wavelengths.

*** What is this phenomenon? Explain.**

Dispersion of light

- Dispersion is the phenomenon of splitting up of a composite light into its constituent colours. The regular array of colours formed by dispersion is the visible spectrum.

*** What is composite light**
Any light that is composed of more than one colour is a composite light
Ex: Sunlight

*** Which colour has the shortest wavelength?**
Violet

*** Which one has the longest?**
Red

*** When light passes through the prism, as the wavelength increases, how does the deviation change?**
- When the wavelength of the colour decrease, the deviation increases
- When the wavelength of the colour increases, the deviation decrease

Worksheet

White light passing through a prism splits up into its component colours. Explain how this happens.