

ABERRATIONS AND EYE PIECES

Ideal image \rightarrow

It is expected from a lens system that

- (i) Image of point object should be point
- (ii) The point which are at same distance at object have image in the same plane and same distance.
- (iii) And colour of the image is same as the object. This type of image is known as ideal image.

Aberrations \rightarrow

The departures of real image from the ideal images in respect of the actual size, and position are called aberrations.

Types of Aberrations

There are two types of aberrations

① Monochromatic aberration

② Chromatic Aberration

- \rightarrow Spherical aberration
- \rightarrow Coma
- \rightarrow Astigmatism
- \rightarrow Curvature of field
- \rightarrow Distortion

The defects which occur even with the monochromatic light are called monochromatic Aberrations.

⇒ Aberration that occur due to dispersion of light are called chromatic aberration.