Chapter - 11
Human Eye And Colourful World

(1 Mark Questions)

Q-1 What would have been the colour of the sky if there had not been any atmosphere around the earth?

Ans-black.

Q-2 For dispersion of light through a prism which colour has maximum deviation?

Ans- violet

(2 Marks Questions)

Q-1 A person wears eye glass of focal length 70 cm what is the far point of the person?

Ans-1/f=1/v-1/u

v=?

f=-70cm

u=-∞

1/-70=1/v-1/-∞

1/v=1/-70 v=-70cm.

Q-2 If your eye glasses have focal length 60cm what is your near point?

Ans-1/f=1/v-1/u

1/60=1/v+1/25

v=-43cm.

Q-3 Why do we observe random wavering or flicking of the objects near a fire or on a very hot day?

Ans-Area above the fire is hot, and its density and hence refractive index changes frequently, therefore apparent image of the object also changes.

Q-4 Why are we not able to see the things clearly when we come out of a darkroom?

Ans-When we are in dark, pupil size is bigger. As we come out of dark room,its size needs to become smaller. For that time-interval person is unable to see.

(3 Marks Question)

Q-1 A certain person has minimum distance of distinct vision of 150cm . He wishes to read at a distance of 25cm. What focal length glass should he use? What is the nature of eye defect?

Ans-U=-25cm V=-150cm.

1/f=1/V-1/U

1/f=1/(-150) - 1/(-25)

f=30cm.

f being +ve, lense used is convex lens.

Hypermetropic