



QUEEN'S VALLEY SCHOOL QUEEN'S VALLEY JUNIOR SCHOOL

ASSIGNMENT

For Class : X

Sections : All Sections

Subject: Physics(Ch-10 Light and Ch- 11 Human Eye)

Q1 When light entering the cornea of the eyeball is very bright , how does the iris behave?

Q2 What is the name given to the ability of the eye lens to adjust its focal length ?

Q3 A 14 year old student is not able to see clearly the questions written on the black board placed at a distance of 5m from him .

(i) Name the defect of vision he is suffering from .

(ii) With the help of a labeled ray diagram show how this defect can be corrected .

Q4 The near point of a hypermetropic eye is 60 cm . What is the nature and power of the lens required to enable him to read a book placed at 25 cm from the eye ?

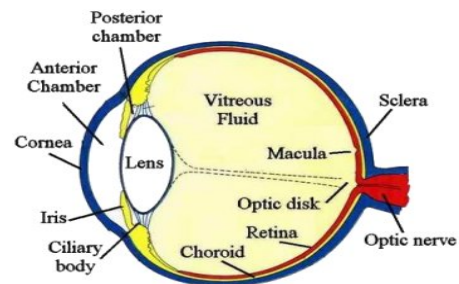
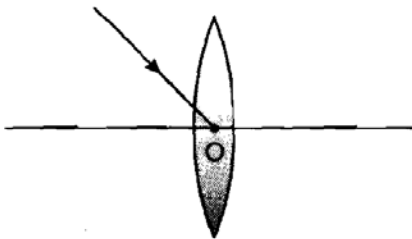
Q5 An object 5.0 cm tall is placed on principal axis of a convex lens . Its 2.0 cm tall image is formed on the screen placed at a distance of 10 cm from the lens . Calculate the focal length of the lens.

Q6 What do you mean by power of a lens ? How does it depend upon the focal length ?

Q7 Two lenses of power + 3.5 D and -1.5 D are placed in contact . What is power and the focal length of the combination ? If an object be placed at a distance of 0.8 m from the lens combination , where is the image formed ?

Q8 A concave lens has focal length 20 cm . At what distance from the lens a 5cm tall object be placed so that it forms an image at 15 cm from the lens . Also calculate the size of the image formed .

Q9 Redraw the given ray diagram and show the path of the refracted ray



Q10 Draw a well labeled diagram of Human Eye and write the functions of the following parts

(a) Cornea (b) Iris (c) ciliary muscles (d) Retina (e)pupil

Q11 A 10 cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 30 cm . The distance of the object from the lens is 20 cm . Find the position , nature and size of the image formed