b.f - 23 July 2021

Physics home Assignment

1) why does it take some time to see the objects in a dim room when you enter the room from the bright sunlight outside?

Ans. This is because in bright sunshine the pupil of our eye is small and when we entered the darkened room very little light enters our eye due to which we cannot see properly. After a while, when the pupil of our eye expands, more light enters our eye and we can see clearly.

2) Mention the function of

(i) the eye lens (ii) Retina

Ans (i) the eye lens - Control the amount of light entering the eye by changing the size of the pupil.

(ii) Eye lens - changes its shape and thickness to adjust the focus on to the retina.

(iii) Retina — receives the light from the lens, converts it to neutral signals and transmit them to the brain for visual recognition.

(3) How exactly we can see the nearby objects and the far-off objects clearly?

Ans This is due to the ability of the eye lens to adjust its focal length which is known as power of accomodation. When the ciliary muscles are relaxed, the lens becomes thin, the focal length of the eye lens increases. This enable us to see distant objects clearly. Similarly, when we are looking at object closer to our eye ciliary muscles contract, the lens become thick, the focal length of the eye lens decreases. This enable us to see nearby objects clearly