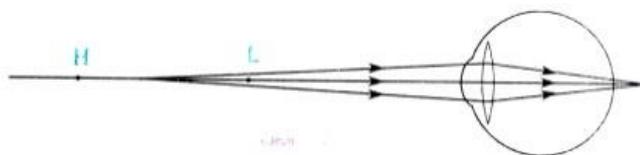
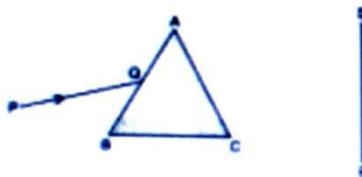


I. Answer all the questions. Each question carries 3 marks.

1. A deaf boy went to see a doctor and expressed his eye defect by drawing the following diagram.



- a) What is the defect that boy was suffering? b) How could it be corrected? Explain with a neat diagram.
2. A teacher in your school cannot see distinctly objects kept beyond 2 m.
- a) What is his defect? b) Find the power of lens which is to be used to correct his defect?
3. A narrow beam PQ of white light is passing through a prism ABC as shown in the figure.



- a) Show the path of the emergent beam as observed on the screen DE.
- b) Write the name and cause of the phenomenon observed
- c) Where else in nature is this phenomenon observed?
4. What is power of lens? If the power of a lens is +2.0 D. Then
- a) Find the focal length of the lens in metres.
- b) Write the name of the lens
- c) Is it a converging lens or diverging lens? Explain with a neat diagram.
5. Explain the phenomenon of a rainbow formation.

Answer all the questions. Each question carries ½ marks.

1. Which muscles are helping to change the focal length of an eye lens?
2. Name the defect that occurs when the ability of accommodation of the eye usually decreases with ageing?
3. What is the reciprocal of focal length called?
4. Write the units of power of lens.
5. Name the angle between the incident ray and emergent ray.
6. Which colour has least wavelength in VIBGYOR?
7. What is the process of re-emission of absorbed light in all directions with different intensities by atoms or molecules?
8. Name the organ which helps in controlling the amount of light entering the eye through 'pupil'.
9. How can we call the distance that a person is able see the objects clearly and distinctly without any strain?
10. Name of the muscular diaphragm which in between aqueous humour and the lens.

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