

INTERNATIONAL INDIAN SCHOOL - BURAIDAH

THE HUMAN EYE AND THE COLOURFUL WORLD

1. The image formed by retina of human eye is
 - a. Virtual and erect
 - b. Real and inverted
 - c. Virtual and inverted
 - d. Real and erect
2. The change in the focal length of human eye is caused due to
 - a. Ciliary muscles
 - b. Pupil
 - c. Cornea
 - d. Iris
3. The least distance of distinct vision for a young adult with normal vision is
 - a. 25 m
 - b. 20 m
 - c. 25 cm
 - d. 20 cm
4. The persistence of vision for human eye is
 - a. 1/10th of a second
 - b. 1/16th of a second
 - c. 1/6th of the second
 - d. 1/18th of a second
5. The light sensitive cell present on retina and is sensitive to the intensity of light is
 - a. Cones
 - b. Rods
 - c. Both rods and cones
 - d. None of these
6. The phenomena of light responsible for the working of the human eye is
 - a. Reflection
 - b. Refraction
 - c. Power of accommodation
 - d. Persistence of vision
7. Which of the following colors is least scattered by fog, dust or smoke?
 - a. Violet
 - b. Blue
 - c. Red
 - d. Yellow
8. The colored light that refracts most while passing through a prism is
 - a. Yellow
 - b. Violet
 - c. Blue
 - d. Red
9. The amount of light entering the human eye is controlled by
 - a. Ciliary muscles
 - b. Pupil
 - c. Cornea

- d. Iris
10. The part of the eyes refracts light entering the eye from external objects?
- Lens
 - Cornea
 - Iris
 - Pupil

Answer the following questions:

- What eye defect is hypermetropia? Describe with a ray diagram how this defect of vision can be corrected by using an appropriate lens.
- A star sometimes appears brighter and some other times fainter. What is this effect called?
State the reason for this effect.
- A student cannot see a chart hanging on a wall placed at a distance of 3 m from him. Name the defect of vision he is suffering from. How can it be corrected?
Draw ray diagrams for the (i) defect of vision and also (ii) for its correction
- Why is red color selected for danger signal lights?
- With the help of a labeled diagram, explain why the sun appears reddish at the sun-rise and the sunset.
- (a) What is dispersion of white light? What is the cause of this dispersion? Draw a diagram to show the dispersion of white light by a glass prism.
(b) a glass prism is able to produce a spectrum when white light passes through it but a glass slab does not produce any spectrum. Explain why?

ANSWERS

- B
- A
- C
- B
- B
- B
- C
- B
- B
- B