

The Human Eye and the Colourful World

ONE MARKS QUESTION

1. What is the far point and near point of the human eye with normal vision?
2. List the three phenomenon of light which is responsible for formation of rainbow in sky?
3. Name the place where image is formed in the eye?
4. Name the muscular diaphragm that controls the size of the pupil.
5. What is the cause of dispersion of light?
6. Give the cause of cataract of eye.
7. Which color has got more wavelengths?
8. What makes bees respond to ultraviolet light?
9. What is the focal length of a plane mirror?
10. Which of the two has a great power, a lens of short focal length or a lens of large length?
11. What does $m = +1$ stand for?
12. What is the power of a lens if its focal length is 50cm?
13. What is the nature of image at retina?
14. Name the point inside the lens through which a ray of light goes undeviated?
15. What is the S.I. unit of power of a lens?
16. Name the photographic film equivalent to our eye .
17. Why does a glass slab not disperse white light?
18. Why do we not perceive the depth of a lake ?
19. Name two causes of Myopia, Hypermetropia and presbiopia.
20. Name the liquids that keep our eye soft.
21. What causes rainbow formation?
22. What is Mirage?

TWO MARKS QUESTION

23. Why are 'danger' signal lights red in colour?
24. Give reasons why the planets do not twinkle.
25. What do you mean by far point and near point of eye?
26. What is presbyopia? State the cause of it and how is it corrected?
27. Why does it takes sometimes to see in a dim room when you enter the room from bright sunlight outside.
28. Can we see a rainbow on the moon?
29. Does a beam of light give a spectrum on passing through a hollow prism?
30. What is scattering of light ? Explain with an example .
31. Why planets do not twinkle.
32. What is dispersion? What happens when light is passed through a glass prism.

THREE MARKS QUESTION

33. A person needs a lens of power 4.5 D for correction of her vision. What kind of defect in vision is she suffering from? What is the focal length of the corrective lens? What is the nature of the corrective lens?
34. A person with a myopia eye cannot see objects beyond a distance of 1.5m. What would be the
35. Power of corrective lens? Which type of lens is used?
36. What do you understand by myopia? Write two causes of it?
37. What is hypermetropia? State two causes of hypermetropia with help of ray diagrams to show: The eye defect hypermetropia.
38. What is meant by advance sunrise and delayed sunset ? Draw a labeled diagram to explain these phenomenon.

FIVE MARKS QUESTION

39. Explain myopia and hypermetropia with the help of ray diagrams and show how these defects can be corrected?
40. What is meant by dispersion and recombination? Explain with the help of a diagram? What is a spectrum? Name the various colors of spectrum of white light in proper sequence.
41. what is atmospheric refraction? Use this phenomenon to explain the following natural events.
- i) Twinkling of stars. ii) advanced sun rise and delayed sun set . Draw a diagrams to illustrate your answers.