## ACBSE Coaching for Mathematics and Science

Class 10: The Human Eye and the Colourfull World Solved CBSE Test Paper - 02

1. How is the eye lens held in its position? Ans: - Ciliary muscles hold the eye in position.

2. What is meant by near point?

Ans: - The nearest point up to which an eye can see clearly is called the near point of the eye.

3. What is meant by least distance of distinct vision?

Ans: - The minimum distance up to, which an eye can see, clearly is called the least distance of distinct vision. For a normal human eye this distance is around 25 cm.

4. Which part of the eye controls the amount of the light entering the eye? Ans: The pupil.

5. Which liquid fills the space behind the cornea?

Ans: - The aqueous humor.

6. Why is blind spot so called?

Ans: An image formed at this point is not sent to the brain.

7. Name the defects of vision of human eye?

Ans: - a. Myopia b. Hypermetropia c. Astigmatism

8. Where is the image formed in an eye suffering from near sightedness or long sightedness?

Ans: - The image is formed in front of retina.

9. How is long sightedness corrected? Ans: By using a convex lens of suitable focal length.

10. A person has to use a concave lens in his spectacles. What defect of vision is he suffering from?

Ans: - Short sightedness

11. What is the twinkling of stars due to? Ans: Refraction of light by earth's atmosphere.

12. Which scientist first explains the dispersion of light? Ans: Isaac Newton

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13. Name the delicate membrane in the eye having enormous number of light sensitive cells.

Ans: - The retina

14. What kind of lens is used in the spectacles of a person suffering from Myopia?

Ans: A concave lens

15. On what factor the colour of the scattered light depends?

Ans: - The colour of the scattered light depends on the size of the scattering particles.

16. What is a function of choroids?

Ans: It contains black pigment, which avoids internal reflections within the eye.

17. Why does sky appear blue on a clear sky?

Ans: - This is due to the scattering of light rays. The blue colour light only reach to us .

18. What happens to the lens and the ciliary muscles when you are looking at nearby objects? Ans: The ciliary muscles contract and the lens becomes thick i.e. its radius of curvature decreases.

18. Name the component of white light that deviates the least and the component that deviates the most while passing through a glass prism.

Ans. Red deviate the least and violet deviate the most.

19. When one enters a dim-light room from bright light, one is unable to see the objects in the dim-light room for some time. Why?

Ans: When one enters a dim-light room from bright light, Pupil takes some time to adjust in order to control the light. When the light is very bright, the iris contracts the pupil to allow less light to enter the eye. However, in dim light the iris expands the pupil to allow more light to enter the eye.

20. Why is the refractive index of atmosphere different at different altitudes?

Ans: The refractive index of atmosphere different at different altitudes because the physical conditions of the refracting medium (air) are not stationary.