

BHARATIYA VIDYA BHAVAN'S V M PUBLIC SCHOOL, VADODARA
QUESTION BANK

Ch- Human Eye

One mark Questions

- Q1. What is the nature of image formed at the retina of human eye?
- Q2. How does the focal length of eye lens change when we shift looking from a distant object to nearby object?
- Q3. Name the vision defect due to which a person can neither clearly see objects placed at the near point nor at infinity.
- Q4. What is the function of iris in the human eye?
- Q5. Draw a diagram showing refraction of a ray of light through a glass prism and mark the angle of deviation.
- Q6. Light of two colours A and B pass through a glass prism. 'A' deviates more than B from its path of incidence. Which colour has a higher speed in the prism?
- Q7. A person is advised to wear spectacles with convex lenses. What type of defect of vision is he suffering from?
- Q8. Name the component of white light that deviates i) the least ii) the most while passing through a glass prism.
- Q9. State two reasons due to which myopia may be caused.
- Q10. Name the phenomenon occurring in nature due to dispersion of light.

Two marks questions

- Q1. Why does sky look blue on a clear day?
- Q2. What is short-sightedness? How can this defect be corrected?
- Q3. A person suffering from an eye defect uses lens of power +1.5 D. Name the defect he suffering from and the nature of lens used.
- Q4. What would have been the colour of the sky if the earth had no atmosphere? Give reason for your answer.
- Q5. On a sunny day, stand at a certain distance from a fountain of water such that the position of the sun is at your back. What do you observe? Explain the reason of your observation.
- Q6. Why does it take some time to see objects in a cinema hall when we just enter the hall from bright sun light?
- Q7. State the difference in colours of the sun observed during sunrise/sunset and noon. Q8. What is dispersion of light? What is the cause of dispersion?
- Q9. What is colour-blindness? What kind of retinal cells are lacking in person suffering from this defect?

Q10. Why planets do not twinkle?

Q11. Why does the sky appear dark instead of blue to an astronaut?

Three marks questions

Q1. Describe the formation of rainbow in the sky with the help of diagram.

Q2. Why sky is blue and the sun appears red at sunset?

Q3. What is meant by persistence of vision? We are able to see the movie picture in a cinema hall. How does this happen?

Q4. What is presbyopia? What causes presbyopia? How is presbyopia corrected?

Q5. What is hypermetropia? Write two causes for development of this defect. Describe with a ray diagram how this defect of vision can be corrected by using spectacles.

Five marks Questions

Q1. a) What is myopia? State the two causes of myopia. With the help of labelled ray diagram show i) the eye defect myopia ii) correction of myopia using a lens.

b) Why is the normal eye unable to focus on an object placed within 10cm from the eye?

Q2. a) What is Dispersion of white light? What is the cause of such 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 it is so.

Q3. With the help of an activity show the blue colour of the sky and the reddish appearance of the sun at the sunrise or sunset.