

## The Human Eye and the Colourful World - Class X - Paper Set 4

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1. What is the power of accommodation?
  - a) The ability of the iris to change its size
  - b) The eye's ability to focus on near and distant objects by adjusting focal length
  - c) The capacity to distinguish colors
  - d) The ability to adjust light intensity
  
2. A person needs spectacles with concave lenses for clear vision. This person most likely has:
  - a) Hypermetropia
  - b) Myopia
  - c) Presbyopia
  - d) Cataract
  
3. The Sun appears red at sunrise and sunset because:
  - a) It's farther from the Earth
  - b) Red light is least scattered
  - c) Atmospheric refraction changes its color
  - d) Only red light reaches Earth
  
4. Which of the following is true about cataracts?
  - a) They cause the lens to become less flexible
  - b) They cause the lens to become cloudy
  - c) They cause the retina to lose sensitivity
  - d) They are corrected by using concave lenses
  
5. The Tyndall effect is observed when light:
  - a) Passes through a glass slab
  - b) Passes through a colloidal mixture
  - c) Reflects off a mirror
  - d) Passes through a vacuum

6. In which part of the eye does most of the focusing of light occur?
- a) Retina
  - b) Lens
  - c) Cornea
  - d) Pupil
7. Why do planets not twinkle?
- a) They are too large
  - b) They are closer to Earth and appear as extended sources
  - c) They have no atmospheric refraction
  - d) They have different colors
8. When sunlight is dispersed by raindrops, the resulting spectrum is called:
- a) Halo
  - b) Rainbow
  - c) Mirage
  - d) Tyndall effect
9. What is the near point of a normal human eye?
- a) 10 cm
  - b) 20 cm
  - c) 25 cm
  - d) 50 cm
10. What type of corrective lenses might someone with both myopia and hypermetropia use?
- a) Convex lenses
  - b) Concave lenses
  - c) Bifocal lenses
  - d) Plane lenses

**Answers for Set 4:** 1-b, 2-b, 3-b, 4-b, 5-b, 6-c, 7-b, 8-b, 9-c, 10-c