

32. Which of the following receptors in the retina of an eye identify the intensity of light ?  
 A) cones      B) optic nerve ( )  
 C) rods      D) all

33. Which of the following lens are needed to correct one's myopia ? ( )  
 A) bi-convex      B) bi-concave  
 C) bi-focal      D) plano-convex

34. A healthy person can see objects at all distances more than ..... healthy clearly.  
 A) 25 cm      B) 30 cm ( )  
 C) 35 cm      D) 20 cm

35. Which of the following is the reason for when the ice breaks into pieces the pieces shine brightly ? ( )  
 A) dispersion  
 B) refraction  
 C) total internal reflection  
 D) scattering of light

36. Which of the following molecules are the reason for blue sky ? ( )  
 A)  $H_2O$       B)  $H_2$   
 C)  $N_2, O_2$       D)  $CO_2$

37. Which of the following lens is used to correct the defect of hypermetropia ? ( )  
 A) plano convex      B) bi-focal  
 C) bi-concave      D) bi-convex

38. The angle of vision for a healthy human being is about ( )  
 A)  $60^\circ$       B)  $30^\circ$   
 C)  $45^\circ$       D)  $90^\circ$

39. Which of the following reports in the retina identify the colour ? ( )  
 A) cones      B) optic-nerve  
 C) rods      D) iris

40. The blue colour of sky is due to ( )

Model Paper issued by AP Board, 2016

A) reflection      B) refraction  
 C) dispersion      D) scattering

41. The red colour of sun during sunset and sunrise is due to ( )  
 A) reflection      B) refraction  
 C) dispersion      D) scattering

42. The rainbow formed in the sky is due to  
 Model Paper issued by AP Board, 2016

A) reflection      B) refraction ( )  
 C) dispersion      D) scattering

43. 1) Refraction ( ) P) Rainbow ( )  
 2) Scattering ( ) Q) Blue colour of the sky  
 3) Dispersion ( ) R) Twinkling of stars

Model Paper issued by AP Board, 2016

A) 1-Q, 2-R, 3-P      B) 1-R, 2-P, 3-Q  
 C) 1-P, 2-R, 3-Q      D) 1-R, 2-Q, 3-P

44. Which colour light travels faster in vacuum ? ( )  
 A) Blue  
 B) Yellow  
 C) Red  
 D) All will travel with same speed

45. The angle of minimum deviation for an equilateral triangle prism is found to be  $30^\circ$ . Its refractive index is ( )

A)  $\frac{1}{\sqrt{2}}$       B)  $\sqrt{2}$   
 C)  $\sqrt{2} - 1$       D)  $\sqrt{2} + 1$

46. Light is incident at an angle  $45^\circ$  from air ( $n = 1$ ) on a prism ( $n = \sqrt{2}$ ). The angle of refraction is ( )

A)  $30^\circ$       B)  $45^\circ$   
 C)  $60^\circ$       D)  $90^\circ$

47. The maximum and minimum focal length of the eye lens are ( )

A) 25 cm / 22.7 cm  
 B) 2.5 cm / 2.27 cm  
 C) 25 mm / 22.7 mm  
 D) Both B & C