

INTERNATIONAL INDIAN SCHOOL RIYADH

STD: X

WORKSHEET 2017-2018

PHYSICS

Chapter:11 Human Eye and the Colourful World

1. Explain the role played by (i) iris (ii) ciliary muscles (iii) retina.
2. Why do stars twinkle? Why do the planets not twinkle?
3. What is Hypermetropia? List two causes for development of Hypermetropia. Describe with the ray diagram, how this defect may be corrected by using spectacles.
4. Explain how the ray of white light is dispersed. Why does this take place? Which colour deviates more? Why?
5. Draw a labeled diagram which shows the refraction of light through a triangular glass prism. Mark the (i) angle of deviation (ii) angle of emergence (iii) angle of prism.
6. What is Tyndall effect? In nature where we can observe this effect and why?
7. Give reason for the following. (i) The sky appear dark instead of blue to an astronaut. (ii) The sun appears reddish early in the morning. (iii) The clear sky appears in blue colour (iv) Danger signals are red in colour.
8. What is presbyopia and cataract? How do we correct them?
9. With the help of a diagram explain rainbow formation.
10. What is myopia? Describe with the neat diagram how myopia can be corrected by using appropriate lenses. If an eye has near point at distance of 0.5m, what is the power of lens required to correct the defect.
11. Explain the terms (i) near point (ii) spectrum (iii) power of accommodation (iv) scattering of light (v) total internal reflection.
12. The near point of a hypermetropic person is 75cm if the person uses eyeglasses having power +1.0D, calculate the distance of distinct vision for him.
