EXERCISE # 1

A. Very Short Answer Type Questions

- Q.1 Define the range of vision of a normal eye.
- Q.2 Define the magnitude of the least distance of distinct vision.
- **Q.3** Explain the magnitude of near point and far point of a normal eye.
- Q.4 Name four common defects of the eye.
- **Q.5** What kind of lens should a person suffering from myopia and hypermetropia use?
- Q.6 A child sitting in a classroom on the back seat is not able to view what is written on blackboard. What defect of vision does he suffer from? What types of lens should be provided to him to correct the defect?
- Q.7 The spectacles of a person have concave lenses. Which defect of vision is he suffering from?
- **Q.8** Which defect of vision is corrected by using cylindrical lens?
- **Q.9** Which type of retinal cells respond to the intensity of light?
- Q.10 Which type of retinal cells respond to colours?

B. Short Answer Type Questions

- Q.11 How does a normal eye view near as well as distant objects clearly ?
- **Q.12** How does the human eye adjust itself to varying intensities of light?
- Q.13 When we enter a cinema hall from bright sunshine, we cannot see our surroundings. Explain why.
- Q.14 How do we see colours ?

- Q.15 What is meant by colour blindness? What kind of retinal cells are lacking in a person suffering from this defect?
- Q.16 What is astigmatism? How is it corrected?
- Q.17 Explain myopia with the help of a welllabelled diagram. How is it corrected by a lens?
- **Q.18** Explain hypermetropia with the help of a well-labelled diagram. How is it corrected by a lens?
- Q.19 Define presbiopia. How is it corrected?

C. Long Answer Type Questions

- **Q.20** Describe the construction of the human eye with a well-labelled diagram. Explain the functioning of its various parts.
- Q.21 Explain the power of accommodation of the eye.
- Q.22 What are rods and cones? Define their roles.
- **Q.23** What do you understand by persistence of vision? Give their applications in theatre.
- **Q.24** Define the power of accommodation of the eye. Define near and far points of the eye.

EXERCISE # 2

Single Correct Answer type Questions

- Q.1 The focal length of eye lens is controlled by :
 (A) Iris (B) Cornea
 (C) Ciliary muscles (D) Optic nerve
- Q.2 A white light falls on a glass prism, the least deviated colour is-(A) Violet (B) Orange
 - (C) Red (D) Yellow
- Q.3 Blue colour of sky is due to-(A) dispersion of light (B) scattering of light(C) refraction of light (D) reflection of light
- Q.4 Rainbow is formed due to-
 - (A) reflection and dispersion of light through the water droplets
 - (B) total internal reflection, refraction and dispersion of light through the water droplets
 - (C) only dispersion of light
 - (D) only refraction of light
- Q.5 Power of accommodation (max. variation in power of eye lens) of a normal eye is about(A) 1D (B) 2D (C) 3D (D) 4D

- Q.6 Dispersion of light by a prism is due to the change in-(A) frequency of light (B) speed of light(C) scattering (D) none of these
- Q.7 Least distance of distinct vision of a long-signted man is 40 cm. He wish to reduce it to 25 cm by using a lens the focal length of the lens is-

(A)
$$+\frac{200}{3}$$
 cm (B) $-\frac{200}{3}$ cm
(C) $+200$ cm (D) -200 cm

Q.8 Which of the following colour has the least wavelength ?

(A) Red	(B) Orange
(C) Violet	(D) Blue

- Q.9 Convex lens of suitable focal length can correct-(A) short sightedness (B) long sightedness(C) presbyopia (D) astigmatism
- Q.10 The focal length of human eye lens is (with relaxed eye)-

(A) 2.5 cm (B) 25 cm (C) 25 m (D)
$$\infty$$

ANSWER KEY

EXERCISE-2

Ques	1	2	3	4	5	6	7	8	9	10
Ans	С	С	В	В	D	В	А	С	В	А