

## 10.S.2. OPTIC

### Choose the correct answer

1. The refractive index of four substances A, B, C and D are 1.31, 1.43, 1.33, 2.4 respectively. The speed of light is maximum in  
a) A              b) B              c) C              d) D
2. Where should an object be placed so that a real and inverted image of same size is obtained by a convex lens  
a)  $f$               b)  $2f$               c) infinity              d) between  $f$  and  $2f$
3. A small bulb is placed at the principal focus of a convex lens. When the bulb is switched on, the lens will produce  
a) a convergent beam of light              b) a divergent beam of light  
c) a parallel beam of light              d) a coloured beam of light
4. Magnification of a convex lens is  
a) Positive              b) negative              c) either positive or negative              d) zero
5. A convex lens forms a real, diminished point sized image at focus. Then the position of the object is at  
a) focus              b) infinity              c) at  $2f$               d) between  $f$  and  $2f$
6. Power of a lens is  $-4D$ , then its focal length is  
a) 4m              b)  $-40m$               c)  $-0.25\text{ m}$               d)  $-2.5\text{ m}$
7. In a myopic eye, the image of the object is formed  
a) behind the retina              b) on the retina  
c) in front of the retina              d) on the blind spot
8. The eye defect 'presbyopia' can be corrected by  
a) convex lens              b) concave lens              c) convex mirror              d) Bi focal lenses
9. Which of the following lens would you prefer to use while reading small letters found in a dictionary?  
a) A convex lens of focal length 5 cm              b) A concave lens of focal length 5 cm  
c) A convex lens of focal length 10 cm              d) A concave lens of focal length 10 cm
10. If  $V_B$ ,  $V_G$ ,  $V_R$  be the velocity of blue, green and red light respectively in a glass prism, then which of the following statement gives the correct relation?  
a)  $V_B = V_G = V_R$               b)  $V_B > V_G > V_R$               c)  $V_B < V_G < V_R$               d)  $V_B < V_G > V_R$

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