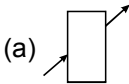
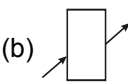
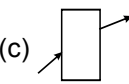


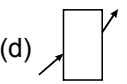
DPP NO. 5
TOPIC : LIGHT

1. Lateral shift varies inversely to :
(A) wavelength (B) refractive index (C) incident angle (D) none of these
2. The velocity of light in air and glass is 3×10^8 m/s and 2×10^8 m/s respectively. What is the R.I. of glass w.r.t. air:
(A) 1.3 (B) 1.4 (C) 1.5 (D) 6
3. Four students showed the following traces of the path of a ray light passing through a rectangular glass slab :

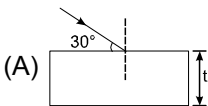
(a) 

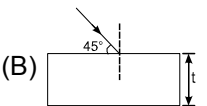
(b) 

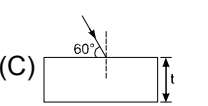
(c) 

(d) 

The trace most likely to be correct is that of student
(A) a (B) b (C) c (D) d
4. In which figure lateral displacement will be larger if a ray of light of same wavelength is incident on a plane glass slab :

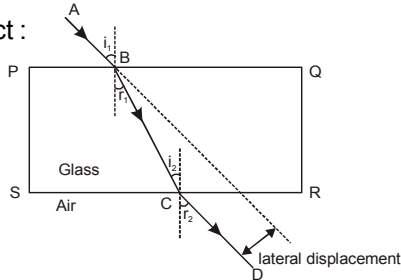
(A) 

(B) 

(C) 

(D) Same in all cases
5. The height through which an object appears to be raised in a denser medium is called :
(A) normal shift (B) lateral shift (C) red shift (D) blue shift
6. R.I. of air is :
(A) 2 (B) 1 (C) 1.13 (D) 1.5
7. The perpendicular distance between the incident and emergent rays, when light is incident obliquely on a refracting slab with parallel faces is called :
(A) normal shift (B) lateral shift (C) red shift (D) blue shift
8. For the figure given below which of the following statements is correct :

(A) $\angle i_1 = \angle r_2$
(B) $\angle i_1 \neq \angle r_2$
(C) Incident and emergent rays are parallel
(D) Both A and C are correct


9. According to the principle of reversibility of light.

(A) ${}_1\mu_2 = {}_2\mu_1$ (B) ${}_1\mu_2 = \frac{1}{{}_2\mu_1}$

(C) both A & B (D) none of these
10. Scattering is also a type of :
(A) Regular reflection (B) Refraction (C) Diffused reflection (D) Interference
11. What do you mean by lateral displacement ?
12. State the principle of reversibility of light.
13. Find the refractive index of a material if angle of incidence of ray of light is 45° and angle of refraction in the material is 30° .
14. With respect to air the refractive indices of water and benzene are 1.33 and 1.50 respectively. Calculate the refractive index of benzene with respect to water.
15. What is the major difference between a concave and a convex lens?

Answers Key

DPP NO. 5 TOPIC : LIGHT

1.	A	2.	C	3.	B	4.	A	5.	A	6.	B	7.	B
8.	D	9.	B	10.	C	13.	$\sqrt{2}$	14.	1.12				