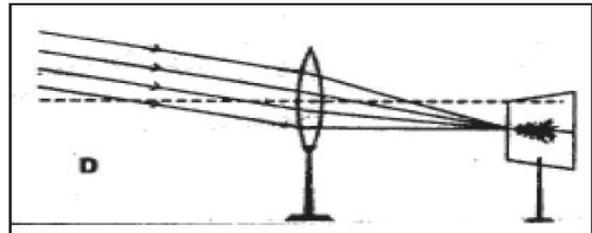
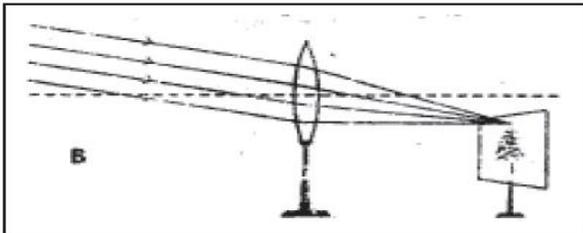
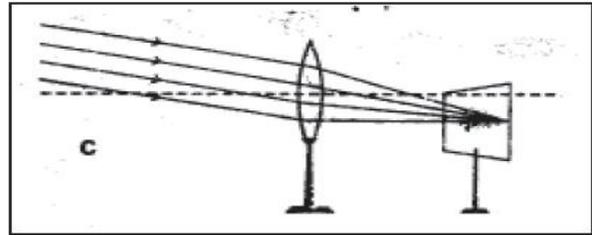
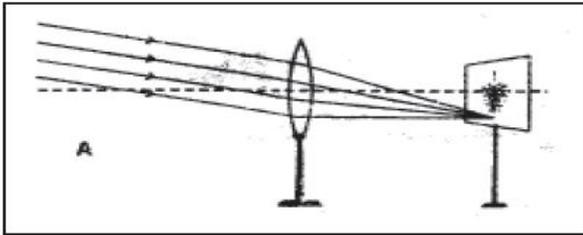


Practical MCQ X Science Term-2

Experiment - Focal length (Concave mirror and convex lens)

Q. 1 While performing the experiment for determination of focal length of a convex lens, some students obtained the image of a distant tree on the screen which one of the following diagrams represents correctly the image of tree on the screen. (a) A (b) B (c) C (d) D



Q. 2 In an experiment the image of a distant object formed by a concave mirror is obtained on a screen. To determine the focal length of the mirror, you need to measure the distance between the:-

- (a) Mirror and the screen (b) Mirror and the object
(c) Object and the screen (d) Mirror and the screen and also between the object and the screen.

Q. 3 The image formed by concave mirror is real. The position of the screen should be

- (a) behind the mirror (b) on the same side of object between focus and infinity
(c) on the same side of object between focus and pole (d) none of these

Q. 4 In the experiment to determine focal length of a convex lens, a student obtained a sharp inverted image of a distant tree on the screen behind the lens. She then removed the screen and looked through the lens in the direction of the object. She will see:-

- (a) An inverted image of the tree at the focus.
(b) No image as the screen has been removed.
(c) A blurred image on the wall of the laboratory.
(d) An erect image of the tree on the lens.

Q. 5 While performing the experiment for determination of focal length of a convex lens by using the sun as a distant object a student could not find a screen with stand. Which one of the following methods he should adopt safely? He should see:-

- (a) The image of sun directly through convex lens. (b) Focus the image of sun on his hand
(c) Focus the image of sun on his nylon shirt. (d) Focus the image of sun on the wall of the room.

Q. 6 In an experiment to determine the focal length of a convex lens, the image of a distant tree is obtained on the screen. To determine the focal length of the lens, you are required to measure the distance between the :-

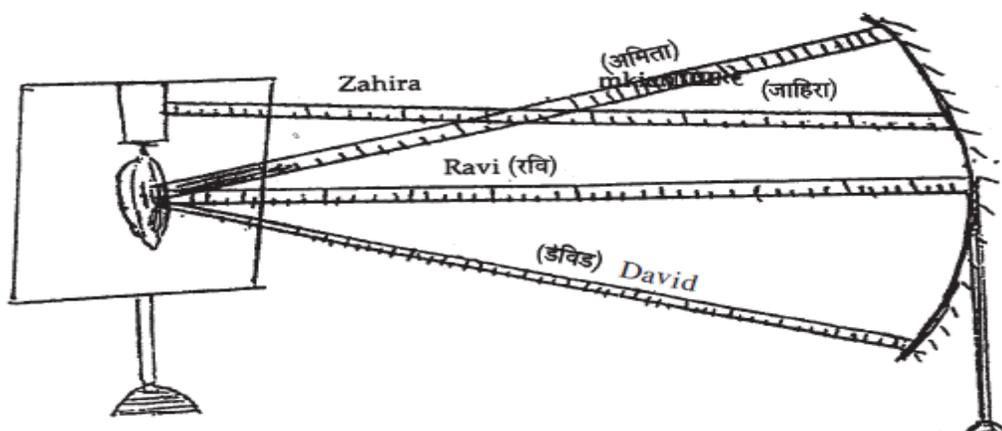
- (a) Lens and the tree only (b) Lens and the screen only
(c) Screen and the tree only (d) Screen and the tree and also between the screen and the lens

Practical MCQ X Science Term-2

Q. 7 For performing an experiment, a student was asked to choose one concave mirror and one convex lens from a lot of mirrors and lenses of different kinds. The correct procedure adopted by her will be :-

- (a) To choose a mirror and lens which can form an enlarged and inverted image of an object.
- (b) To choose a mirror which can form a diminished and erect image and a lens which can form an enlarged and erect image of the object.
- (c) To choose a mirror and lens which can form an enlarged and erect image of an object.
- (d) To choose a mirror and a lens which can form a diminished and erect image of an object.

Q. 8 Four students, Ameeta, Zahira, Ravi and David performed the experiment for determination of focal length of a concave mirror separately. They measured the distance between the screen and the mirror as shown in the following diagram. Which one of these students is likely to get the correct value of focal length of the concave mirror? (a) Ameeta (b) Zahira (c) Ravi (d) David



Q. 9 Your school laboratory has one large window. To find the focal length of a concave mirror using one of the walls as the screen, the experiment may be performed.

- (a) Near the wall opposite to the window.
- (b) On the same wall as the window
- (c) On the wall adjacent to the window
- (d) Only on the table as per the laboratory arrangement

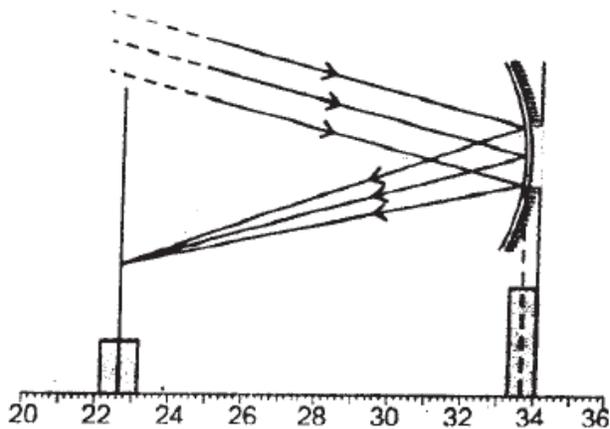
Q. 10 A student obtains a blurry image of an object on a screen by using a concave mirror. In order to obtain a sharp image on the screen, he will have to shift the mirror :-

- (a) towards the screen
- (b) away from the screen
- (c) either towards or away from the screen depending upon the position of the object
- (d) to a position very far away from the screen

Q. 11 The focal length of the concave mirror in an experimental setup shown below, is :-

- (a) 10.2cm
- (b) 11.0cm
- (c) 11.4cm
- (d) 12.2cm

Practical MCQ X Science Term-2



Q. 12 A student performs an experiment on finding a focal length of a convex lens by keeping a lighted candle on one end of a laboratory table, a screen on its other end and the lens between them as shown in the figure. The positions of the three are adjusted to get a sharp image of the candle flame on the screen by making.

- (a) the screen in the direction of the lens or the lens in the direction of the screen
- (b) the screen in the direction of the lens or the lens away from the screen
- (c) the screen away from the lens or the lens in the direction of the screen
- (d) neither the screen nor the lens.

Q. 13 Given below are few steps (not in proper sequence) followed in the determination of focal length of a given convex lens by obtaining a sharp image of a distant object.

- (i) Measure the distance between the lens and screen
- (ii) Adjust the position of the lens to form a sharp image.
- (iii) Select a suitable distant object.
- (iv) Hold the lens between the object and the screen with its faces parallel to the screen.

The correct sequence of steps for determination of focal length is

- (a) (iii), (i), (iv), (ii)
- (b) (iii), (iv), (ii), (i)
- (c) (iii), (i), (ii), (iv)
- (d) (i), (ii), (iii), (iv)

Answers

1. a 2. a 3. b 4. a 5. d 6. b 7. c 8. c 9. b 10. a 11. b 12. a 13. b

Practical MCQ X Science Term-2

Experiment – Rectangular Glass Slab

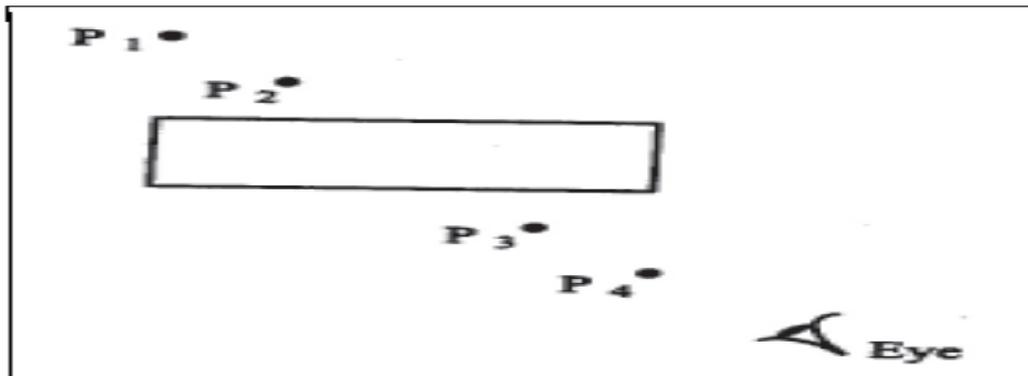
Q. 1 In the glass slab experiment shown below, four students A, B, C and D did the following:-

A : Kept the eyes far from the glass slab while placing both the pins P3 and P4.

B : Kept the eye close to the glass slab while placing both the pins P3 and P4.

C : Kept the eyes close to the glass slab while placing pins P3 and far from the slab while placing P4.

D : Kept the eyes far from the glass slab while placing pin P3 and close to the slab while placing pin P4.



The correct procedure is that of student.

(a) A (b) B (c) C (d) D

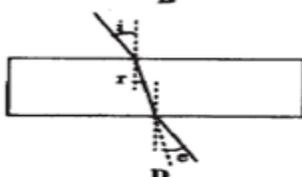
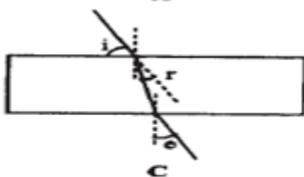
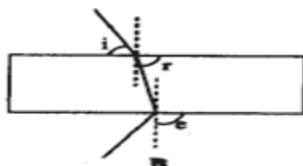
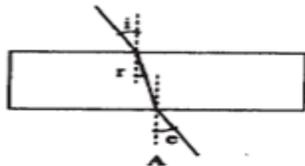
Q. 2 A student performed the experiment of glass slab and with different angles of incidence, measured the angles of refraction and emergence in each case. He then recorded his observations in the table as given.

S.No.	Angle of Incidence	Angle of refraction	Angle of emergence
A	30	25	30
B	40	42	40
C	50	50	50
D	60	60	62

The correct observation is that of :- (a) A (b) B (c) C (d) D

Q. 3 In an experiment to trace the path of a ray of light passing through a rectangular glass slab, the correct measurement of angle of incidence (i), refraction (r) and emergence (e) is shown in diagram is:-

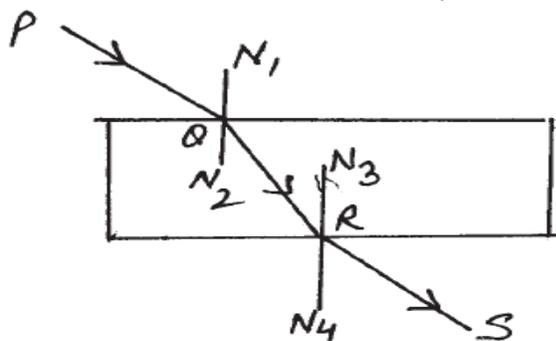
(a) A (b) B (c) C (d) D



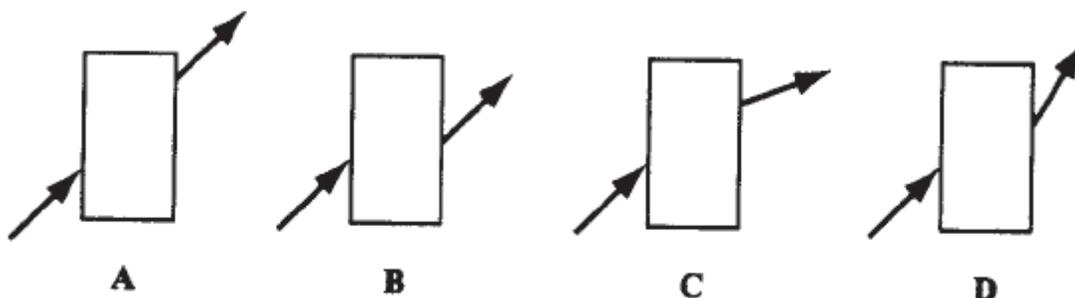
Q. 4 An experiment of tracing the path of light rays through a glass slab was set up in the laboratory and ray diagram was drawn as shown

Practical MCQ X Science Term-2

The teacher asked the students to identify refracted ray. The correct answer is :- (a) PQ (b) QR (c) N1N2 (d) RS

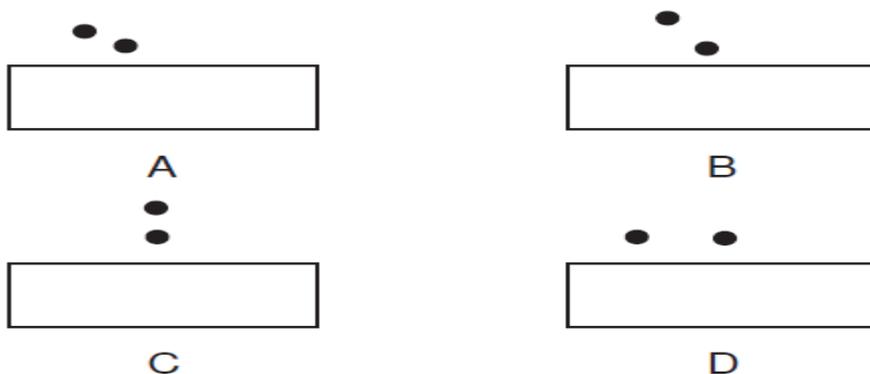


Q. 5 Four students showed the following traces of the path of a ray of light passing through of rectangular glass slab.



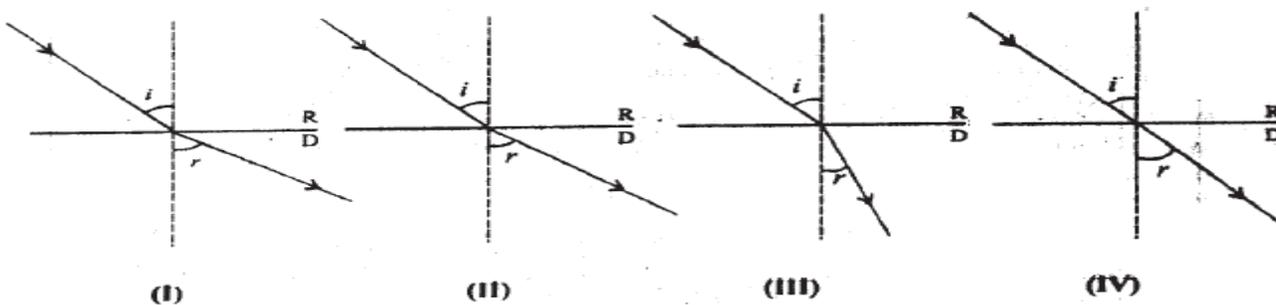
The trace most likely to be correct is that of student:- (a) A (b) B (c) C (d) D

Q. 6 Out of the four set ups of fixing the pins as shown, while tracing the path of ray of light through a rectangular glass slab, the most appropriate and preferred position of pins is:- (a) A (b) B (c) C (d) D



Q. 7 Which of the following figures shows the travelling of light from rarer (R) to denser (D) medium?

(a) Figure (I) and (IV) only (b) Figure (II) and (III) only (c) Figure (III) only (d) Figure (I) only



Practical MCQ X Science Term-2

Q. 8 Four students reported the following observation tables for the experiment to trace the path of a ray of light passing through a glass slab for different angles of incidence. The observations, likely to be correct are those of student.

30°	40°	30°	30°	20°	30°
40°	50°	40°	40°	30°	40°
50°	60°	50°	50°	40°	50°
$\angle i$	(A) $\angle r$	$\angle e$	$\angle i$	(B) $\angle r$	$\angle e$
30°	20°	40°	30°	20°	20°
40°	30°	50°	40°	30°	30°
50°	40°	60°	50°	40°	40°
	(C)			(D)	

(a) A (b) B (c) C (d) D

Q. 9 A ray of light is incident on one of the parallel faces of a rectangular glass slab. It emerges out of the opposite parallel face making an angle of emergence

- (a) equal to angle of incidence (b) greater than angle of incidence
(c) smaller than angle of incidence (d) equal to zero

Q. 10 A ray of light incident on one of the parallel faces of rectangular glass slab, emerges out of the opposite parallel face

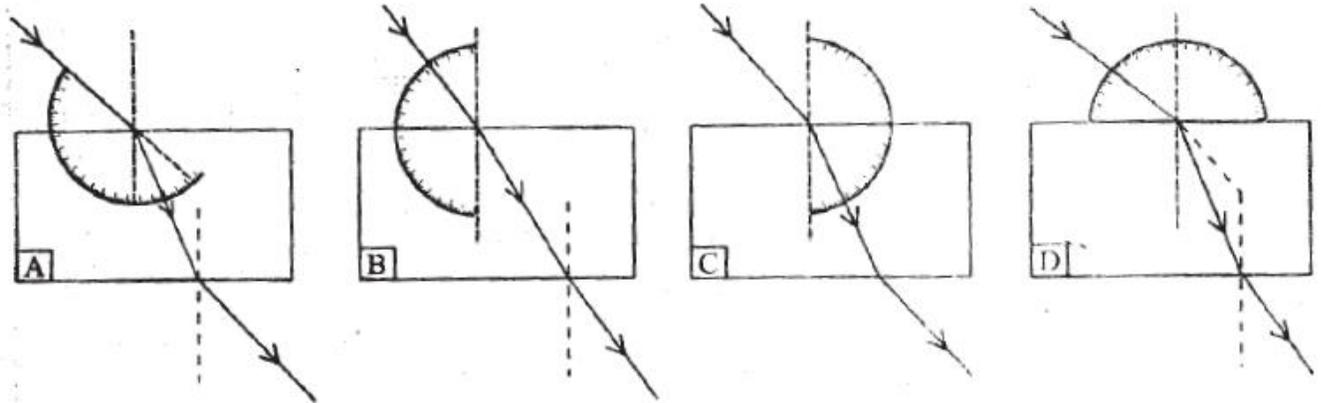
- (a) inclined to the incident ray (b) along the same straight line as the incident ray
(c) parallel to the incident ray but laterally displaced (d) get absorbed into the body of the glass slab and does not emerge out of it.

Q. 11 While performing an experiment of refraction of light through glass slab four students gave the following conclusion after their observations. Whose conclusion is correct.

- (a) $\angle i = \angle r = \angle e$ (b) $\angle i < \angle r$ and $\angle r = \angle e$ (c) $\angle i > \angle r$ and $\angle r > \angle e$ (d) $\angle i = \angle e$ and $\angle r < \angle i$

Practical MCQ X Science Term-2

Q. 12 A student traces the path of a ray of light passing through a rectangular glass slab



For measuring the angle of incidence, he must position the protector in the manner shown in figure.

- (a) A (b) B (c) C (d) D

Answers

1. a 2. a 3. a 4. b 5. b 6. b 7. c 8. b 9. a 10. c 11. d 12. b