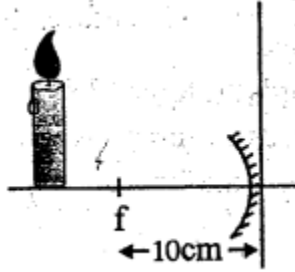


01.



The diagram, shows a candle 15cm away from the concave mirror. Select the characteristics of the image formed.

- (1) real, upright
- (2) virtual, upright
- (3) real, upside down
- (4) virtual, upside down

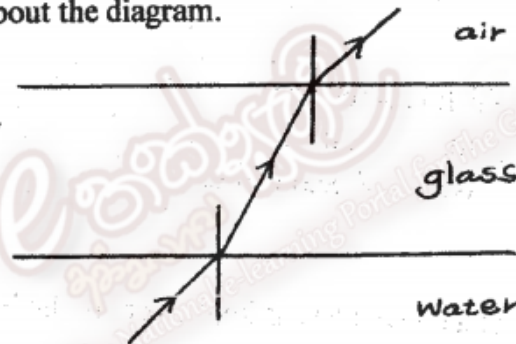
02.

An object kept beyond  $2F$  in front of a convex lens is kept closer to the lens gradually. The instance where a virtual image is formed is,

- i. When the object is beyond  $2F$
- ii. When the object is on  $F$
- iii. When the object is in between  $F$  and  $2F$
- iv. When the object is in between the lens and the mirror

03.

Given below is a refraction of a light ray through two transparent mediums. Select the correct statement about the diagram.



- i. The light ray bends towards the normal due to the high density of glass than air.
- ii. The light ray travel from glass to denser is bend away from the normal due to high density in air.
- iii. When a light ray travels from glass to air the angle of incidence is higher than the angle of refraction.
- iv. When increasing the angle of incidence in water the total internal reflection can be take place.

04.

What are the optical devices related to the instances given below?

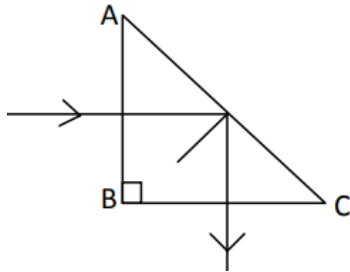
- Obtain a very large image of your face.
- Obtain a converged light beam after refraction.
- Able to view a larger area with a diminished image.

What are the optical devices related with the above instances?

1. Convex mirror, convex lens, concave mirror
2. Concave mirror, convex lens, convex mirror
3. Concave mirror, concave lens, convex lens
4. Concave lens, concave mirror, convex lens

05.

The diagram shows how a light ray bends by  $90^\circ$  from a right angle prism. What is the correct statement about the critical angle of the glass and angle of incidence on the AC surface?



1. Critical angle = angle of incidence
2. Critical angle  $>$  angle of incidence
3. Critical angle  $<$  angle of incidence
4. Critical angle = angle of incidence =  $90^\circ$

06.

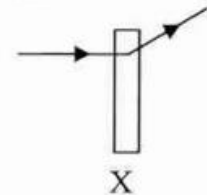
The optical instruments that can be taken a virtual image only,

1. Convex lens and concave lens
2. Convex mirror and concave mirror
3. Convex mirror and concave lens
4. Convex lens and concave mirror

07.

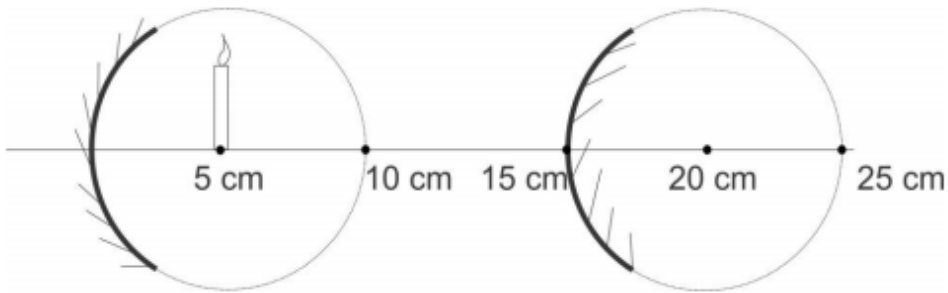
The behaviour of a light ray is given beside. What is needed to be kept in the place X to get that consequence.

- 1) Convex lens
- 2) Convex mirror
- 3) Concave lens
- 4) Concave mirror





11.



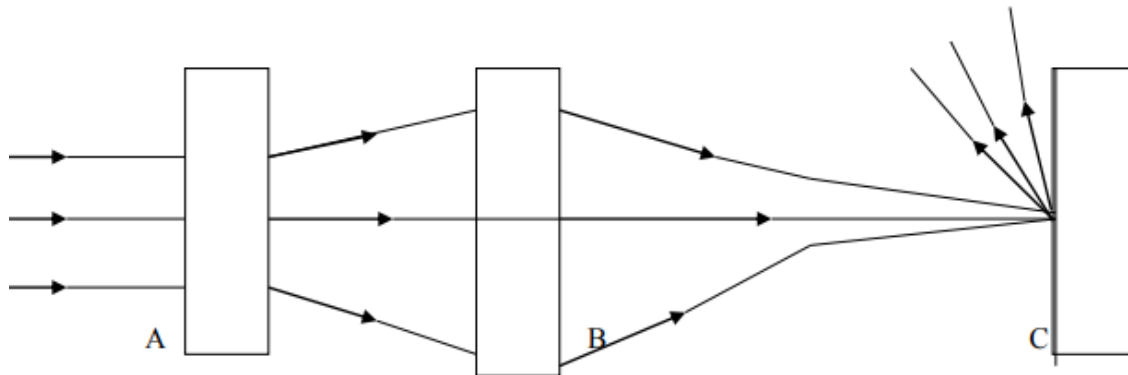
Selecting the correct option which given the properties of the candle – L by the mires A and B,

	A	B
1	Virtual, upside down diminished	Real, Upright diminished
2	Virtual, upright, magnified	Virtual, upside down magnified

3	Virtual, upright magnified	Real, upside down, diminished
4	Real, upside down, equal to the size of the object	Virtual, upright, diminished

12.

The following diagram shows the way of trevally light thruway some equipment's.

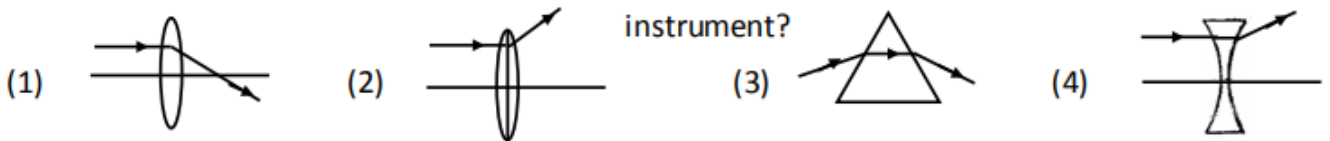


Which could be the A, B, C in the order,

1. Concave lens, convex lens, plane mirror
2. Convex lens, Concave lens, plane mirror
3. Concave lens, convex lens, convex lens
4. Convex mirror, concave mirror, concave lens

13.

Which of the following diagrams is incorrect regarding the path of a light ray through an optical instrument?



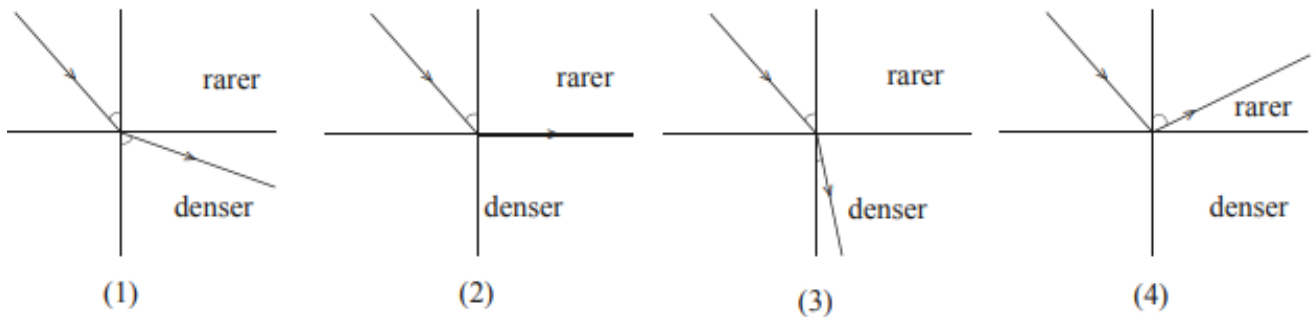
14.

The image of an object placed in front of a convex mirror is always

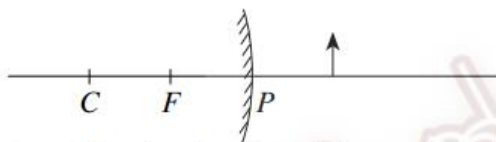
- (1) inverted.
- (2) reduced.
- (3) real.
- (4) formed in front of the mirror.

15.

Which diagram correctly shows the refraction of a ray entering a denser medium from a rarer medium?



16.



An object is placed upright on the principal axis in front of a convex mirror. What happens to the image when the object is moved towards the mirror?

- (1) Becomes smaller and gets closer to the mirror
- (2) Becomes bigger and gets closer to the mirror
- (3) Becomes smaller and gets away from the mirror
- (4) Becomes bigger and gets way from the mirror

