Q1. Fill in the blanks:

(i) The point on the surface at which incident ray strikes is called _____

(ii) When two mirrors are kept parallel to each other the number of images is _____

(i) Kaleidoscope works on the principle of _____

(iv) The splitting of white light into its constituent colours is called _____

(v) The coloured part of eye is _____

(vi) The size of image formed by the plane mirror is _____ as size of object.

(vii) The angle of incidence is always _____ to the angle of reflection

(viii) The reflection of light from an uneven surface is called _____

(ix) In a Kaleidoscope, the mirrors make an angle of _____ with each other.

(x) The space between the cornea and lens is filled with a liquid called _____

Q2. Choose the correct option:

1. The angle between the reflected ray and the normal is called

(a) angle of incidence (b) reflected ray (c) angle of reflection (d) point of incidence

2. Two mirrors A and B are placed at right angles to each other. A ray of light incident on mirror A at an angle of 25° falls on mirror B after reflection. The angle of reflection for the ray reflected from mirror B would be

(a) 25° (b) 50° (c) 65° (d) 115°

3. Which of the following works on the concept of multiple reflections?

(a) Telescope (b) Binoculars (c) Kaleidoscope (d) Sunglasses

4. The nature of image formed by plane mirror is

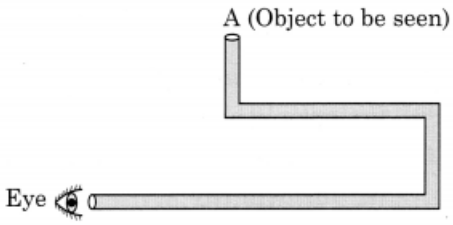
(a) real and inverted (b) virtual and erect (c) real and erect (d) virtual and inverted

5. If you hold a pen in your right hand and stand in front of the mirror, the pen will be in the left hand in the image. This phenomenon is called

(a) lateral inversion (b) diffraction (c) reflection (d) inversion

Q3. Source based question:

Atul planned an activity to observe an object A through pipes as shown in the given figure, so that he could see objects which he could not directly see.



(a) How many mirrors should he use to see the object?

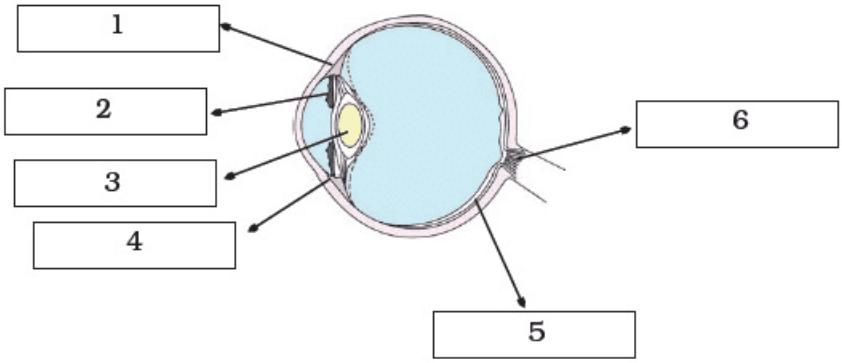
(b) Indicate the positions of the mirrors in the figure.

(c) What must be the angle with respect to the incident light at which he should place the mirrors?

(d) If any of the mirrors is removed, will he be able to see the object?

Q4. Case based question:

Light enters the eye through a thin membrane that forms a transparent bulge on the front of the eye, called the cornea. Iris is a dark muscular diaphragm that controls the size of the pupil. The pupil is the small opening in the centre of the iris. The lens, which is behind the pupil helps to adjust the focal length required to clearly focus on objects at various distances. The retina is the screen where the images get formed. It is a delicate membrane with a large number of photosensitive cells called rods and cones. Cones are sensitive to bright light, and rods are sensitive to dim light. The optic nerve transmits the electrical signals from the eye to the brain.



Write down the name of the parts of the eye in the blank spaces shown

Q5. Match the following

Column A		Column B	
(i)	Cornea	(a)	Transparent front part of eye
(ii)	Pupil	(b)	Layer on which impression of images is formed
(i)	Iris	(c)	Point on retina where there are no nerve endings
(iv)	Retina	(d)	Sensitive for bright light
(v)	Blind spot	(e)	Is a small opening in the cornea
(vi)	Rods	(f)	Sensitive for dim light
(vii)	Cones	(g)	Controls the size of the pupil

Match the items given in column I suitably with those given in column II.