Reflection of light test paper (unsolved) for class 10

Fill in the blanks

Question 1. Image formed by a plane mirror is always …….. and …….
Question 2. A spherical mirror, whose reflecting surface is curved inwards, that is, faces towards the centre of the sphere, is called a ……
Question 3. The focal length of a spherical mirror is equal to …… its radius of curvature.
Question 4. Speed of light is …….
Question 5. Light rays always travels in ……

One marks questions

Question 1. State the laws of reflection of light.
Question 2. A concave mirror produces three times magnified (enlarged) real image of an object placed at 10 cm in front of it. Where is the image located?
Question 3. The magnification produced by a plane mirror is +1. What does this mean?
Question 4. An object is placed at a distance of 10 cm from a convex mirror of focal length 15 cm. Find the position and nature of the image.
Question 5. Define the principal focus of a concave mirror.

Three marks questions

Question 1. Draw ray diagrams showing the image formation by a convex mirror when an object is placed at infinity
Question 2. Under what condition in an arrangement of two plane mirrors, incident ray and reflected ray will always be parallel to each other, whatever may be angle of incidence. Show the same with the help of diagram.
Question 3. A 10 mm long awl pin is placed vertically in front of a concave mirror. A 5 mm long image of the awl pin is formed at 30 cm in front of the mirror. Find the focal length of this mirror.
Question 4. Name the type of mirror used in the following situations.
(a) Headlights of a car.
(b) Side/rear-view mirror of a vehicle.
(c) Solar furnace.
Support your answer with reason.
Question 5. A convex mirror used for rear-view on an automobile has a radius of curvature of 3.00 m. If a bus is located at 5.00 m from this mirror, find the position, nature and size of the image.

Five marks questions

Question 1. Draw ray diagrams showing the image formation by a concave mirror when an object is placed
(a) between pole and focus of the mirror
(b) between focus and center of curvature of the mirror
(c) at center of curvature of the mirror
(d) at infinity
Question 2. Size of image of an object by a mirror having a focal length of 20 cm is observed to be reduced to 1/3rd of its size. At what distance the object has been placed from the mirror? What is the nature of the image and the mirror?