

DELHI PUBLIC SCHOOL JAMMU

SESSION 2024-25

MONTH : NOVEMBER

ASSIGNMENT IV

CLASS : VII

SUBJECT: SCIENCE

TOPIC :LIGHT

Q1. In which of the following cases the image formed by a concave mirror is equal to the size of the object:

- a) When the object is placed beyond C
- b) When the object is placed at C
- c) When the object is placed at F
- d) When the object is placed between C and F

Q2. Assertion (A): Screen is the surface where we obtain real images of objects

Reason (R) : Screen is an essential component for obtaining real images

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

Q3. Why is only one surface of the mirrors polished?

Q4. Nitika's grandmother is not able to see distinct objects clearly. Nitika takes her when eye clinic. Which type of lens does the doctor suggest to Nitika's grandmother? Why does the doctor do so?

Q5. Define the following terms related to spherical mirrors with the help of a diagram:

- a) Centre of curvature
- b) Principal focus

Q6. How to distinguish between plane mirror, concave mirror and convex mirror without touching them.

Q7. Read the following paragraph and answer the questions that follows:

A rainbow is formed by the dispersion of sunlight by tiny water drops in the air. Just after the rainfall, there are large number of tiny water droplets in atmosphere that act as tiny prism when the beam of white light passes through the large number of spherical transparent water droplets, it gets dispersed and forms a continuous band of colours. This band of colours spectrum is called rainbow. It is always formed in the direction opposite to the that of the sun, it is seen as a large arc in the sky. When observed carefully, you can see seven colours in a rainbow, though it may not be easy to distinguish all of them, these are violet, indigo, blue Green, yellow orange written as with draw

In the rainbow, red colour appears on the upper earth and wall. Colour appears on the lower when we blow soap bubbles appear colourful and showing rainbow colours.

- a) What is the band of seven colours called?
- b) Define dispersion of light.
- c) How is a rainbow formed?

Q8. Draw a ray diagram using candle as an object to differentiate between a concave and a convex mirror.