



St. Lawrence High School
A Jesuit Christian Minority Institution



Term : 2nd

Solution of Work Sheet – 5

Class – X

Subject – Physical Science

Date – 22.04.20

Chapter – Light

Topic – Reflection at spherical surface

Choose the correct option for the following questions.

1 × 15 = 15

1. Concave and convex mirrors are the small part of a –

- a. Complete circle
- b. Complete sphere
- c. Plane mirror
- d. None of these

Ans: b. Complete sphere

2. The radius of curvature of plane mirror is –

- a. Zero
- b. Infinite
- c. Undefined
- d. It depends on the size of the mirror

Ans: b. Infinite

3. More is the curvature –

- a. More will be the radius of curvature
- b. Less will be the radius of curvature
- c. Radius of curvature does not depend on curvature
- d. It depends on whether the surface is convex or concave

Ans: b. Less will be the radius of curvature

4. In case of spherical mirrors, all the distances are always measured with respect to –

- a. Focus
- b. Centre of curvature
- c. Pole
- d. Position of the object

Ans: c. Pole

5. In case of spherical mirror –

- a. Laws of reflection are obeyed
- b. Laws of reflection are not obeyed
- c. Laws of reflection are only obeyed in case of concave mirror
- d. Laws of reflection are only obeyed in case of convex mirror

Ans: a. Laws of reflection are obeyed

6. For spherical mirror –

- a. Centre of curvature and pole are the same point
- b. Centre of curvature and pole are the different points

- c. There is a separation between these two points called radius of curvature.
- d. Both option b. and option c. are correct

Ans: d. Both option b. and option c. are correct

7. Principal axis of spherical mirror is –
- a. A perpendicular line segment at pole
 - b. The line joining the centre of curvature and pole
 - c. None of option a. and option b. is correct
 - d. Both option a. and option b. are correct.

Ans: d. Both option a. and option b. are correct.

8. If a ray falls on spherical mirror along the principal axis, then –
- a. It will retrace the incident path
 - b. Angle of incidence will be 0°
 - c. Angle of reflection will be 0°
 - d. All of these

Ans: d. All of these

9. Any incident ray falls on the spherical mirror through the centre of curvature -
- a. Will be reflected at an angle 90°
 - b. Will be reflected at an angle 45°
 - c. Will be reflected back along the same path.
 - d. None of these

Ans: c. Will be reflected back along the same path

10. The deviation occurs in case of an incident ray that falls on spherical mirror through the centre of curvature is –
- a. 0°
 - b. 90°
 - c. 180°
 - d. 360°

Ans: c. 180°

11. The deviation occurs in case of an incident ray that falls on spherical mirror along the principal axis is –
- a. 0°
 - b. 90°
 - c. 180°
 - d. 360°

Ans: c. 180°

12. An incident ray falls normally on a concave mirror making an angle 30° with the principal axis. The angle of incidence in this case is –
- a. 0°
 - b. 30°
 - c. 60°
 - d. 90°

Ans: a. 0°

13. A Laser torch is placed at the centre of curvature of a concave mirror. The torch emits a monochromatic beam at an angle of 60° with principal axis. If the beam be incident on the mirror, the angle of deviation will be –
- a. 0°
 - b. 30°
 - c. 90°
 - d. 180°

Ans: d. 180°

14. An incident ray falls on a concave mirror coming parallel to the principal axis. The angular position of the point of incidence w.r.t the centre of curvature is 50° . The angle of reflection in this case will be –
- a. 40°
 - b. 50°
 - c. 100°
 - d. None of these

Ans: b. 50°

15. The angle of deviation as discussed in Question No – 14, will be –
- a. 0°
 - b. 40°
 - c. 80°
 - d. 100°

Ans: c. 80°

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