



St. Lawrence High School
A Jesuit Christian Minority Institution



Term : 2nd

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

- Concave and convex mirrors are the small part of a –
 - Complete circle
 - Complete sphere
 - Plane mirror
 - None of these
- The radius of curvature of plane mirror is –
 - Zero
 - Infinite
 - Undefined
 - It depends on the size of the mirror
- More is the curvature –
 - More will be the radius of curvature
 - Less will be the radius of curvature
 - Radius of curvature does not depend on curvature
 - It depends on whether the surface is convex or concave
- In case of spherical mirrors, all the distances are always measured with respect to –
 - Focus
 - Centre of curvature
 - Pole
 - Position of the object
- In case of spherical mirror –
 - Laws of reflection are obeyed
 - Laws of reflection are not obeyed
 - Laws of reflection are only obeyed in case of concave mirror
 - Laws of reflection are only obeyed in case of convex mirror
- For spherical mirror –
 - Centre of curvature and pole are the same point
 - Centre of curvature and pole are the different points
 - There is a separation between these two points called radius of curvature.
 - Both option b. and option c. are correct
- Principal axis of spherical mirror is –
 - A perpendicular line segment at pole
 - The line joining the centre of curvature and pole
 - None of option a. and option b. is correct
 - Both option a. and option b. are correct
- If a ray falls on spherical mirror along the principal axis, then –
 - It will retrace the incident path
 - Angle of incidence will be 0°

- c. Angle of reflection will be 0°
 - 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
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°
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
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°
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°
14. An incident ray fall 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
15. The angle of deviation as discussed in Question No - 14, will be -
- a. 0°
 - b. 40°
 - c. 80°
 - d. 100°

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