



St. Lawrence High School  
A Jesuit Christian Minority Institution



Term : 2<sup>nd</sup>

Work Sheet – 7

Class – X

Subject – Physical Science

Date – 27.04.20

Chapter – Light

Topic – Image formation by concave mirror

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Choose the correct option for the following questions.

1 × 15 = 15

- An image formed by any mirror is called a real image, when –
  - The image is formed behind the mirror in the opposite site of the object
  - The image is formed at infinity
  - The image is formed anywhere in front of the mirror
  - None of these
- When a ray is incident at the pole of any mirror, then –
  - The incident ray retraces the path after reflection
  - It remains undeviated
  - The incident angle is the angle between the incident ray and the principal axis
  - None of these
- If a point object is placed at infinite distance in front of a concave mirror, the image of that point object will be formed at –
  - Pole of the mirror
  - Focus of the mirror
  - Centre of curvature of the mirror
  - Infinity
- If an extended object is placed (perpendicularly on the principal axis) beyond the centre of curvature of a concave mirror, then image will be formed –
  - Within focus
  - Within centre of curvature
  - In between the focus and the centre of curvature
  - None of these
- If an extended object is placed (perpendicularly on the principal axis) beyond the centre of curvature of a concave mirror, then image formed will be –
  - Real and erect
  - Virtual and erect
  - Real and inverted
  - Virtual and inverted

6. If an extended object is placed (perpendicularly on the principal axis) beyond the centre of curvature of a concave mirror, then image formed will be –
  - a. Enlarged
  - b. Diminished
  - c. Can be both
  - d. None of these
  
7. If an extended object is placed (perpendicularly on the principal axis) at the centre of curvature of a concave mirror, then image will be formed –
  - a. Within focus
  - b. Within centre of curvature
  - c. In between the focus and the centre of curvature
  - d. At the centre of curvature

Ans: d. At the centre of curvature
  
8. If an extended object is placed (perpendicularly on the principal axis) at the centre of curvature of a concave mirror, then image formed will be –
  - a. Magnified
  - b. Highly magnified
  - c. Diminished
  - d. Of same size of the object
  
9. If an extended object is placed (perpendicularly on the principal axis) at the centre of curvature of a concave mirror, then image formed will be –
  - a. Real and erect
  - b. Virtual and erect
  - c. Real and inverted
  - d. Virtual and inverted
  
10. If an extended object is placed (perpendicularly on the principal axis) in between the centre of curvature and focus of a concave mirror, then image will be formed –
  - a. At centre of curvature
  - b. At focus
  - c. Within focus
  - d. Beyond centre of curvature
  
11. If an extended object is placed (perpendicularly on the principal axis) at the focus of a concave mirror, then image will be formed –
  - a. At focus
  - b. At centre of curvature
  - c. Within focus
  - d. At infinity
  
12. If an extended object is placed (perpendicularly on the principal axis) at the focus of a concave mirror, then image formed will be –
  - a. Real and erect
  - b. Real and inverted
  - c. Virtual and erect
  - d. Virtual and inverted

13. If an extended object is placed (perpendicularly on the principal axis) at the focus of a concave mirror, then image formed will be –
- Diminished
  - Of same size
  - Magnified
  - Highly magnified.
14. An object is placed perpendicularly on the principal axis at a distance 25cm in front of a concave mirror of focal length 12cm. The image in this case will be –
- Real, magnified and inverted
  - Real, diminished and erect
  - Real, diminished and inverted
  - Virtual, magnified and erect
15. The radius of curvature of a concave mirror is 21cm. if an extended object is placed at 11.5cm from the pole of the mirror perpendicularly on the principal axis, then the nature of the image will be –
- Real, erect and magnified
  - Virtual, inverted and magnified
  - Real, erect and diminished
  - Real, inverted and highly magnified

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