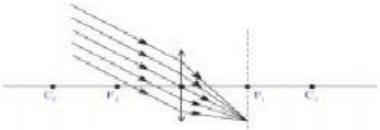
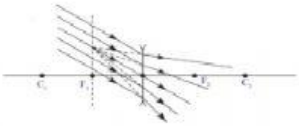
REFRACTION OF LIGHT AT CURVED SURFACES





1. When parallel rays, making an angle with principal axis, fall on a lens, the rays converge at a point or appear to diverge from a point lying on a _____. [ ]

A) Optic centre B) Principal axis C) Focus D) Focal plane

2. Focal plane is the plane... [ ]

A) at focus B) Parallel to principal axis

C) Perpendicular to the principal axis at the focus D) Making a small angle with the principal axis at the focus.

3. Generally, the lens used in Microscopes are [ ]

A) Bi-convex lens B) Bi-concave lens C) Concavo convex D) Convexo concave

4. If an object is placed beyond the centre of curvature on the principal axis of a convex lens, then the height of an image formed, when compared to the height of an object is. ( )

A) Small B) bigger C) Equal D)Point size image is formed

5. Which characteristics of an image are not true, when an object is placed beyond the centre of curvature on the principal axis of a convex lens? ( )

A) Inverted image B) Real image C) Diminished image D) Equal size image

6. Choose the correct answer ( )

i convex lens can form both real and virtual images. ii. Concave lens can form only virtual images.

A.) i) is true ii) is false B) i) is true ii) is true C).i) is false ii) is true D) i) is false ii) is false

7. The position of an object to obtain a virtual image using a convex lens should be ( )

A) At Infinity B) at centre of curvature

C) Centre of between centre of curvature and focus D) between focus and optic centre

8. For concave lens the focal plane is represented by a line drawn perpendicular to the principal Axis at a point ( )

A) Optic centre B) Focal point towards the object

C) Centre of curvature towards the object D) Focal point on the other side of the object.

9. For an object placed in front of a convex lens whose radius of curvature is 20cm, the image is formed at a distance of 20 cm from the lens .The height of the image is

A. Smaller than the object. B. Bigger than the object.

C. Same size as the object D. Cannot say about the size of the image

10. An object of height 3 cm is placed on the principal axis at a distance of 40 cm from a convex lens of focal length 20 cm. Find image distance and height of the image. Write characteristics of the image.

A) Greater than +1 B)+1 C)-1 D) < -1

11.An object of height 2 cm is placed in front of a converging lens of focal length 20cm. An image is formed at a distance of 30 cm from the lens .Find the object distance and height of the . Write characteristics of the image

A) Greater than +1 B)+1 C)-1 D) < -1

12. An object of height 1.5 cm is placed at a distance of 45 cm from the convex lens, the real image is formed at a distance of 30 cm from the lens .Find the height of the image formed.

A) Greater than +1 B)+1 C)-1 D) < -1

13. magnification (m) in case of virtual image formed by a convex lens will be

A) Greater than +1 B)+1 C)-1 D) < -1

14. Irrespective of object distance …….. lens forms diminished, real and erected images. [ ]

A) Bi-convex lens B) Bi-concave lens C) Concavo convex D) Convexo concave

15. A virtual, inverted and same in size image formed by

A) Bi-convex lens B) Bi-concave lens C) Concavo convex D) Convexo concave

16. A virtual, inverted and same in size image formed when object placed at _____by bi-convex lens

A) Optic centre B) centre of curvature C) Focus D) Focal plane

17. A virtual, inverted and larger size image formed when object placed at _____by bi-convex lens

A) Optic centre B) centre of curvature C) Focus D) Beyond C

18. A dot size image formed at _____

A) Optic centre B) centre of curvature C) Focus D) Beyond C

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