



DOON PUBLIC SCHOOL

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Class X Physics Light Vacation Worksheet-1

1. Focal length of plane mirror is
 - a. At infinity
 - b. Zero
 - c. Negative
 - d. None of these
2. Image formed by plane mirror is
 - a. Real and erect
 - b. Real and inverted
 - c. Virtual and erect
 - d. Virtual and inverted
3. A concave mirror gives real, inverted and same size image if the object is placed
 - a. At F
 - b. At infinity
 - c. At C
 - d. Beyond C
4. Power of the lens is -40, its focal length is
 - a. 4m
 - b. -40m
 - c. -0.25m
 - d. -25m
5. A concave mirror gives virtual, refract and enlarged image of the object but image of smaller size than the size of the object is
 - a. At infinity
 - b. Between F and C
 - c. Between P and F
 - d. At E
6. In optics an object which has higher refractive index is called
 - a. Optically rarer
 - b. Optically denser
 - c. Optical density
 - d. Refractive index
7. The optical phenomena, twinkling of stars, is due to
 - a. Atmospheric reflection
 - b. Total reflection
 - c. Atmospheric refraction

- d. Total refraction
8. Convex lens focus a real, point sized image at focus, the object is placed
- At focus
 - Between F and 2F
 - At infinity
 - At 2F
9. The unit of power of lens is
- Metre
 - Centimeter
 - Diopter
 - M-1
10. The radius of curvature of a mirror is 20cm the focal length is
- 20cm
 - 10cm
 - 40cm
 - 5cm
11. If an incident ray passes through the focus, the reflected ray will
- pass through the pole
 - be parallel to the principal axis
 - retrace its path
 - pass through the centre of curvature
12. When light falls on a smooth polished surface, most of it
- is reflected in the same direction
 - is reflected in different directions
 - is scattered
 - is refracted into the second medium
13. Image formed by reflection from a plane mirror is
- real and inverted
 - virtual and erect
 - real and erect
 - virtual and inverted
14. Magnifying power of a concave lens is
- always > 1
 - always < 1
 - always $= 1$
 - can have any value
15. The image formed by a convex lens can be
- virtual and magnified
 - virtual and diminished
 - virtual and of same size

(d) virtual image is not formed

16. Fill in the blanks

1. Image formed by a plane mirror is always _____ and _____.
2. A spherical mirror, whose reflecting surface is curved inwards, that is, faces towards the centre of the sphere, is called a _____.
3. The focal length of a spherical mirror is equal to _____ its radius of curvature.
4. Speed of light is _____.
5. Light rays always travels in _____.
6. Light shows the phenomena of reflection, refraction and _____ .
7. The speed of light in vacuum is _____ .
8. Power of a lens is the _____ of its focal length.
9. The SI unit of power is _____ .
10. A _____ lens will always give a virtual, erect and diminished image, irrespective of the position of the object.
11. A positive sign in the value of magnification indicates that the image is _____ .
12. A _____ mirror is used as a head mirror by the doctors to concentrate light on the body parts to be examined.
13. No matter how far you stand from a spherical mirror, your image appears erect. The mirror may be _____ .
14. Mirror formula= _____
15. Lens formula=_____