

PPSC Physics Topic 4 Geometrical Optics

| Sr | Questions | Answers Choice |
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| 1 | Two convex lenses of equal focal length 'f' are placed in contact, the resultant focal length is | A. Zero B. 1 C. 2f D. f/2 |
| 2 | To final image produced by a compound microscope is. | A. Real and inverted B. Real and erect C. Virtual and erect D. Virtual and inverted |
| 3 | The focal length of a thin converging lens is 10 cm What is the maximum distance from the lens that the object can be placed so that the lens acts as a magnifying glass. | A. 5 cm B. 10 cm C. 15 cm D. 20 cm |
| 4 | A double convex an bubble in water will behave as. | A. Plane slab B. Concave mirror C. Convex lens D. Concave lens |
| 5 | The maximum distance between an object and its real image in case of convex lens is | A. f B. 2f C. 2.5 f D. 4 f |
| 6 | Michelson used the equation to determine the speed of light. | A. $c = 4 fd$ B. $c = 8fd$ C. $c = 12 fd$ D. $c = 18 fd$ |
| 7 | To reduce spherical aberration in optical instruments which of the following should be used. | A. Plano convex lenses B. Concave lenses C. Spherical mirrors D. Plane mirrors |
| 8 | In compound microscope, image formed by the eyepiece is | A. Real B. Inverted C. Erect D. Diminished |
| 9 | The ability of eye to focus near as well as distant object is termed as. | A. Myopia B. Persistence of vision C. Power of accommodation D. Astigmatism |
| 10 | The object of a telescope is very large this is to have an image which is. | A. More magnified B. Of better resolution C. More bright D. More clear |
| 11 | If a single convex lens is placed closed to the eye then it can be used as | A. Telescope B. Simple microscope C. Compound microscope D. Opera glass |
| 12 | A diverging lens may not have | A. Negative focal length B. Positive focal length C. One plane surface D. One convex surface |
| 13 | The characteristic of an image formed by a plane mirror is. | A. It is of the same size as the object B. It is laterally inverted C. It is upright D. All of the above |
| 14 | The maximum number of rays required by a lens to form an image are | A. 2 B. 3 C. 4 D. Infinite |
| 15 | A bi convex lens of a material of refractive index 1.5 has the radius of curvature of each side equal to 50 cm the power of the lens will be. | A. 0.5 dipotre B. 1.0 dioptre C. 1.5 diopter D. 2.0dioptre |

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| 16 | The angle of incidence that causes the refracted ray in the rarer medium to bend through 90° is called. | A. Critical angle B. solid angle C. Plane angle D. Acute angle |
| 17 | In case of a convex lens, when object is placed at F | A. the image is formed beyond 2 F B. the image is formed between F and 2 F C. No image is formed D. the image is formed behind the object |
| 18 | The power of convex lens of focal length 50 cm will be | A. 1.0 dioptre B. 2.0 dioptre C. 4.0 dioptre D. 5.0 dioptre |
| 19 | If D_1 and D_2 are the powers of two lenses placed in contact then the power of the combination will be. | A. $D_1 + D_2$ B. $D_1 - D_2$ C. D_1 / D_2 D. $D_1 \times D_2$ |
| 20 | Reciprocal of the focal length is called. | A. Radius of curvature of the lens B. Power of the lens C. Aperture of the lens D. Resolving power |