

Physics ECAT Pre Engineering Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	To observe interference of light, the condition, which must be met with is that the sources must be:	A. Monochromatic B. Phase coherent C. Both of above D. None of above
2	For the virtual image, option _____ is not correct:	A. $1/p = 1/f - 1/q$ B. $1/f = 1/p - 1/q$ C. $1/p = 1/p - 1/f$ D. $1/p = 1/f + 1/q$
3	In case of point, source of light shape of wavefront is:	A. Spherical B. Cylindrical C. Plane D. None of these
4	Conventionally, all the distance p, q, f are measured from _____ of the lens:	A. Focus B. Optical center C. Edges D. None of these
5	The distance from eye to near point is taken as:	A. 10 cm B. 15 cm C. 20 cm D. 25 cm
6	The ratio of the size of the image to that of object is called:	A. Focal length B. Aperture C. Linear magnification D. Principal axis
7	How is the image formed by a convex lens affected if the upper half of the lens is covered with a paper:	A. The upper half of the image is cut off B. The brightness of the image is reduced C. The brightness of the image is increased D. No effect at all
8	Monochromatic light means waves of:	A. Same frequency B. Same colour C. Same wavelength D. All of them
9	With age, least distance of distinct vision:	A. Increases B. Decreases C. Is not affected D. None is correct
10	A convex lens acts as diverging lens when the object is placed:	A. Between F and 2F B. At 2F C. With focal length D. Beyond 2F
11	The superposition of the two waves of same frequency and amplitude travelling in the same direction gives to an effect called	A. Diffraction B. Interference C. Polarization D. Dispersion
12	In an interference pattern of Young's double slit(YDS) experiment:	A. Bright fringes are wider than dark fringes B. Dark fringes are wider than bright fringes C. Both dark and bright fringes are of equal width D. Central fringes are wider than the outer fringes
13	In case of constructive interference of two waves, the amplitude of the resultant wave is _____ either of the waves:	A. Greater than B. Equal to C. Smaller than D. None of these
14	When the object lies between F and 2F, the image formed by is formed at:	A. Virtual B. Diminished

C. Erect

D. Real

15 Light appears to travel in straight line because

A. It is not absorbed by the atmosphere
B. It is refracted by the atmosphere
C. Its wavelength is very small
D. Its velocity is very large

16 If the object is situated at focus of a convex lens, then its image is formed at:

A. F
B. 2F
C. Infinity
D. None of these

17 If the focal length of the convex lens is 5 cm, then to get the real and inverted image of the same size as that of object, the object should be placed at:

A. 15 cm
B. 10 cm
C. 20 cm
D. 5 cm

18 The velocity of light in vacuum can be changed by changing

A. Frequency
B. Amplitude
C. Wavelength
D. None of these

19 A magnifier gives an image which is:

A. Virtual, inverted
B. Real, erect
C. Virtual, erect
D. Real, inverted

20 To see the minor details of the object by microscope, it should have:

A. High magnifying power
B. High resolving power
C. An objective of larger focal length
D. None of these