

ECAT Physics Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	Frequency of red color as compared to that of violet color is:	A. Equal B. Smaller C. Greater D. None of these
2	The speed of the secondary wavelets as mentioned in Huygen's principle is the speed of propagation of the wave itself.	A. Equal to B. Greater than C. Smaller than D. None of these
3	A grating with high resolving power can distinguish difference in wavelengths :	A. Smaller B. Larger C. Zero D. None of these
4	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
5	Conventionally, all the distance p, q, f are measured from of the lens:	A. Focus B. Optical center C. Edges D. None of these
6	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
7	The distance from eye to near point is taken as:	A. 10 cm B. 15 cm C. 20 cm D. 25 cm
8	Least distance of distinct vision of an old man possibly becomes:	A. A little less than 25 cm B. A little more than 25 cm C. Much less than 25 cm D. None of these
9	When a source of light isat very large distance, the shape of wavefront is:	A. Spherical B. Cylindrical C. Plane D. None of these
10	The property of light which does not change with the nature of the medium is:	A. Frequency B. Amplitude C. Wavelength D. None of these
11	To sources are said to be coherent if they have:	A. Same amplitude B. Same wavelength C. Definite phase relation with each other D. None of them
12	The wave nature of light was proposed by:	A. Newton B. Thomas Young C. Huygen D. None of these
		A. 0 ° B. 60

13	Angle between the ray of light and the corresponding wavefront is:	packground-size: initial; background-attachment: initial; background-origin: initial; background-origin: initial; background-olip: initial;">° C. 90 °
14	The size of the image is maximum when its distance from the magnifying glass is:	A. 0.10 m B. 0.15 m C. 0.20 m D. 0.25 m
15	In the formula $R = N \times m$ for diffraction grating, N denotes:	A. No. of lines/cm B. No. of lines/meter C. Total number of lines D. None of above
16	A convex lens acts as diverging lens when the object is placed:	A. Beyond 2F B. At 2F C. With focal length D. Between F and 2F
17	The image of an object 5 mm length is only 1 cm high. The magnification produced by lens is:	A. 1 B. 0.2 C. 2 D. 0.1
18	Light has:	A. Wave nature B. Particle nature C. Dual nature D. None of these
19	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
20	The locus of all the points in the same phase of vibration is called:	A. Wave packet B. Wave front C. Wave number D. None of them