

## ECAT Physics Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	Monochromatic light means waves of:	A. Same frequency B. Same colour C. Same wavelength D. All of them
2	In case of point, source of light shape of wavefront is:	A. Spherical B. Cylindrical C. Plane D. None of these
3	When the object lies between F and 2F, the image formed by is formed at:	A. Virtual B. Diminished C. Erect D. Real
4	The cause of mirage observed in deserts in bright sunlight is due to	A. Refraction of light     B. Reflection of light     C. Scattering of light     D. Total internal reflection of light
5	The terms phase difference and path difference are:	A. Same B. Different C. Equal D. None of these
6	Certain light of wavelength 600 nm is used to view an object under the microscope. If the aperture of its objective is 1.22 cm, then the limiting angle of resolution will be:	A. 6 x 10 <sup>-5</sup> rad B. 7 x 10 <sup>-5</sup> rad C. 8 x 10 <sup>-5</sup> rad D. None of these
7	In an interference pattern of Young's double slit(YDS) experiment:	A. Bright fringesare wider than dark fringes B. Dark fringes are wider than bright fringes C. Both dark and bright fringes are of equal width D. <div> fringes are wider than the outer fringes</div>
8	Wave length of light, on the average, is given by:	A. 10 <sup>-14</sup> <sub>m</sub> B. 10 <sup>-10</sup> <sub>m</sub> C. 10 <sup>-6</sup> <sub>m</sub> D. 10 <sup>-4</sup> <sub>m</sub>
9	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
10	The ratio of the diameter of two convex lenses isthe ratio of their focal lengths:	A. Greater than B. Less than C. Equal to D. None of these
11	The magnifier forms a virtual image of the object at:	A. None of these B. Both A and B are correct C. Much farther than the least distance D. Least distance of distinct vision
12	Light waves are:	A. Transverse wave B. Longitudinal wave C. Compressional wave D. None of them
13	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
14	The velocity of light in vacuum can be changed by changing	A. Frequency B. Amplitude C. Wavelength

	A. High magnifying power
To see the minor details of the object by microscope, it should have:	B. High resolving power C. Am objective of larger focal length D. None of these
If the focal length of the convex lens is 5 cm, then to get the real and inversame size as that of object, the object should be placed at:	A. 15 cm B. 10 cm C. 20 cm D. 5 cm
The locus of all points in a medium having same phase of vibration is call	A. Crest B. Trough C. Wavelength D. Wave-front
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
A line which represents the direction of travel of a wave is known as:	A. Spherical Wavefront B. Locus C. Ray D. Either B or C
20 A ray passing through optical center of a lens, after refraction:	A. Passes through focus B. Go deviated C. Retraces its path D. Both B and C