

## ECAT Physics Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	In case of point, source of light shape of wavefront is:	<p>A. Spherical</p> <p>B. Cylindrical</p> <p>C. Plane</p> <p>D. None of these</p>
2	Huygen principle is used to determine:	<p>A. Speed of light</p> <p>B. Location of wavefront</p> <p>C. About polarized or unpolarized light</p> <p>D. None of them</p>
3	Light has:	<p>A. Wave nature</p> <p>B. Particle nature</p> <p>C. Dual nature</p> <p>D. None of these</p>
4	Light waves are:	<p>A. Transverse wave</p> <p>B. Longitudinal wave</p> <p>C. Compressional wave</p> <p>D. None of them</p>
5	The cause of mirage observed in deserts in bright sunlight is due to	<p>A. Refraction of light</p> <p>B. Reflection of light</p> <p>C. Scattering of light</p> <p>D. Total internal reflection of light</p>
6	Which one of the following phenomenon cannot be explained on the bases of Huygen's theory	<p>A. Refraction</p> <p>B. Reflection</p> <p>C. Diffraction</p> <p>D. Formation of spectrum</p>
7	Angle between the ray of light and the corresponding wavefront is:	<p>A. 0°</p> <p>B. 60°</p> <p>C. 90°</p> <p>D. 120°</p>
8	The superposition of the two waves of same frequency and amplitude travelling in the same direction gives to an effect called	<p>A. Diffraction</p> <p>B. Interference</p> <p>C. Polarization</p> <p>D. Dispersion</p>
9	The contrast in the fringes in an interference pattern depends upon	<p>A. Fringe width</p> <p>B. Relative difference intensities of the two sources</p>

9	The contrast in the fringes in an interference pattern depends upon	the two sources C. Distance between the slits D. Wavelength
10	Huygen's principles states that:	A. Light has dual nature B. Either of these C. None of these D. Light travels in straight line
11	Two 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 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
13	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
14	The wave nature of light was proposed by:	A. Newton B. Thomas Young C. Huygen D. None of these
15	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. $6 \times 10^{-5}$ rad B. $7 \times 10^{-5}$ rad C. $8 \times 10^{-5}$ rad D. None of these
16	Electromagnetic waves transport:	A. Energy only B. Momentum only C. Both A and B are correct D. None of is correct
17	Wave length of that color as compared to that of violet color is:	A. Smaller B. Longer C. Equal D. None of these
18	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
19	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
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