

## ECAT Physics Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	Huygen principle is used to determine:	A. Speed of light B. Location of wavefront C. About polarized or unpolarized light D. None of them
2	In case of destructive interference of two waves, the amplitude of the resultant wave will be either of the waves:	A. Greater than B. Smaller than C. Equal to D. None of these
3	Huygen's principles states that:	A. Light has dual nature B. Either of these C. None of these D. Light travels in straigth line
4	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. 5 cm B. 20 cm C. 10 cm D. 15 cm
5	The wave nature of light was proposed by:	A. Newton B. Thomas Young C. Huygen D. None of these
6	To see the minor details of the object by microscope, it should have:	A. High magnifying power B. High resolving power C. Am objective of larger focal length D. None of these
7	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
8	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
9	Conventionally, all the distance p, q, f are measured from of the lens:	A. Focus B. Optical center C. Edges D. None of these
10	Angle between the ray of light and the corresponding wavefront is:	A. 0 <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-origin: initial; background-clip: initial;">°</span> B. 60 <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-repeat: initial; background-repeat: initial; background-origin: initial; background-origin: initial; background-elip: initial;">°</span> C. 90

The terms phase difference and path difference are:  A Same Different C Equit D None of these			sans-serir; packground-image: initial; background-position: initial; background-size: initial; background- repeat: initial; background- attachment: initial; background- origin: initial; background-clip: initial;">°
The image of the tip of a needle is never sharp because of  B. Interference of light D. Reflection of light A. Crest B. Trough C. Wavelength D. Wave-front  A. Virtual B. Diminished C. Erect D. Real  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:  16 If the object and its image are located at a distance of 5 cm from the focus of a convex lens, the focus length of the lens will be:  A. Camma rays, micro waves, visible light B. 10 cm C. 20 cm D. 25 cm  A. Gamma rays, micro waves, visible light B. Radio waves, ultraviolet waves, X- rays D. Visible light, gamma rays, radio waves D. Its verifacted by the atmosphere B. It is refracted by the atmosphere B. It is refracted by the atmosphere B. It is wavelength is very small D. Its velocity is very large  The cause of mirage observed in deserts in bright sunlight is due to  The least distance of distinct vision is:  A. 10 cm B. 25 cm C. 50 cm C. 20 cm D. The least distance of distinct vision is:	11	The terms phase difference and path difference are:	B. Different C. Equal
13 The locus of all points in a medium having same phase of vibration is called  14 When the object lies between F and 2F, the image formed by is formed at:  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:  16 If the object and its image are located at a distance of 5 cm from the focus of a convex lens, the focus length of the lens will be:  17 Which one the following gives three regions of electromagnetic spectrum in order of increasing wavelength?  18 Light appears to travel in straight line because  19 The cause of mirage observed in deserts in bright sunlight is due to  20 The least distance of distinct vision is:  2 Nitrational at:  2 Nitrational at:  2 Nitrational at:  2 Nitrational at:  3 A Virtual  3 Diminished  3 C. Erect  3 A 6 x 10 <sup>-5</sup> -7ad  4 A 6 x 10 <sup>-5</sup> -7ad  5 C. Terct  2 D. Real  3 A 10 cm  5 C. 20 cm  C. 20 cm  D. 25 cm  A Gamma rays, micro waves, visible light  B. Radio waves, ultraviolet waves, x-rays  C. Ultraviolet rays, infrared rays, micro waves  C. Ultraviolet rays, infrared rays, micro waves  D. Visible light, gamma rays, radio waves  18 Light appears to travel in straight line because  19 The cause of mirage observed in deserts in bright sunlight is due to  20 The least distance of distinct vision is:  21 A 10 cm  3 A 10 cm  4 D. The least distance of distinct vision is:	12	The image of the tip of a needle is never sharp because of	B. Interference of light C. Diffraction of light
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Certain light of wavelength 600 mm 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:  B. 7 x 10-sup>-5-5/sup>rad C. 8 x 10-sup>-5-5/sup>rad D. None of these  If the object and its image are located at a distance of 5 cm from the focus of a convex lens, the focus length of the lens will be:  A. 5 cm B. 10 cm C. 20 cm D. 25 cm  A. Gamma rays, micro waves, visible light B. Radio waves, ultraviolet waves, X-rays C. Ultraviolet rays, infrared rays, micro waves D. Visible light, gamma rays, radio waves  Light appears to travel in straight line because  A. It is not absorbed by the atmosphere C. Its wavelength is very small D. Its velocity is very large  A. Refraction of light B. Reflection of light C. Scattering of light D. Total internal reflection of light C. 50 cm C. 50 cm	14	When the object lies between F and 2F, the image formed by is formed at:	B. Diminished C. Erect
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