

Physics ECAT Pre Engineering Chapter 9 Physical Optics

Sr	Questions	Answers Choice
SI	Questions	
1	With age, least distance of distinct vision:	A. Increases B. Decreases C. Is not affected D. None is correct
2	Light has:	A. Wave nature B. Particle nature C. Dual nature D. None of these
3	Resolving power in mth order diffraction for grating is given by:	A. R = N x m B. None of these C. R = m/N D. R = N/m
4	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
5	Monochromatic light means waves of:	A. Same frequency B. Same colour C. Same wavelength D. All of them
6	Wave length of that color as compared to that of violet color is:	A. Smaller B. Longer C. Equal D. None of these
7	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
8	When the object lies between F and 2F, the image formed by is formed at:	A. Real B. Virtual C. Diminished D. Erect
9	A prism splits a beam of white light into seven component colors. This is so because	A. Phase of different colors is different B. Amplitude of different colors is different C. Wavelength of different colors is different D. Velocity of different colors is different
10	Stars twinkle due to	A. The fact that they do not emit light continuously B. The refractive index of earth's atmosphere fluctuates C. The Star's atmosphere absorbs its light intermittently D. None of these
11	The terms phase difference and path difference are:	A. Same B. Different C. Equal D. None of these
12	The least distance of distinct vision is:	A. 10 cm B. 25 cm C. 50 cm D. 100 cm
13	Which one the following gives three regions of electromagnetic spectrum in order of increasing wavelength?	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

14	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
15	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
16	A virtual image is formed when object is placed:	A. Within focal length of a convex lens B. Near the focal point of a concave lens C. Both A and B D. Away from 2F of a convex lens
17	Wave length of light, on the average, is given by:	A. 10 ⁻¹⁴ _{mB. 10⁻¹⁰_{mC. 10⁻⁶_{mD. 10⁻⁴_m}}}
18	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
19	Huygen's principles states that:	A. Light has dual nature B. Either of these C. None of these D. Light travels in straigth line
20	When the object lies between F and 2F, the image formed by is formed at:	A. Virtual B. Diminished C. Erect D. Real