

ECAT Pre General Science Physics Chapter 10 Optical Instruments

Sr	Questions	Answers Choice
1	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
2	Light waves are	A. Mechanical waves B. Electromagnetic waves C. Any of above D. None of above
3	When the source of light is at very large distance, the shape of wavefront is	A. Spherical B. Cylindrical C. Plane D. None of these
4	In an interference pattern of Young's Double Slit (YDS) experiment	A. Bright fringes are wider than dark fringes B. Dark fringes are wider than bright fringes C. Both dark and bright fringes are of equal width D. Central fringes are wider than the outer fringes
5	The terms phase difference and path difference are	A. Same B. Different C. Equal D. none of these
6	Light waves are	A. Transverse waves B. Longitudinal waves C. Compressional D. None of them wave
7	Electromagnetic waves transport	A. Energy only B. Momentum only C. Both A and B D. None is correct
8	Laws of reflection and refraction can also be explained by	A. Particle nature of light B. Quantum nature of light C. Wave nature of light D. Complex nature of light
9	Light has	A. Wave nature B. Dual nature C. Particle nature D. None of them
10	In case of point source of light, shape of wavefront is	A. Spherical B. Cylindrical C. Plane D. None of above
11	Speed of light in vacuum depends upon	A. Frequency B. Wavelength C. Amplitude D. None of these
12	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
13	The wave nature of light was proposed by	A. Newton B. Thomas Young C. Huygen D. None of these
14	The appearance of colours in the soap (or oil) film results from	A. Dispersion B. Interference C. Reflection D. Refraction

15	Monochromatic light means wave of	A. Same frequency B. Same colour C. Same Wavelength D. All of them
16	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
17	Huygen principle is used to determine	A. Speed of light B. Location of wavefront C. About polarized and unpolarized light D. None of them
18	Huygen's principle states that	A. Light travels in straight line B. Light has dual nature C. Either of these D. None of these
19	Wavelength of light, on the average, is given by	A. 10^{-14} m B. 10^{-10} m C. 10^{-6} m D. 10^{-4} m
20	The locus of all the points in the same phase of vibration is called	A. Wave pocket B. Wavefront C. Wave number D. None of these