

Physics ECAT Pre Engineering Chapter 10 Optical Instruments

Sr	Questions	Answers Choice
1	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
2	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
3	The terms phase difference and path difference are	A. Same B. Different C. Equal D. none of these
4	Huygen's principle states that	A. Light travels in straight line B. Light has dual nature C. Either of these D. None of these
5	In case of point source of light, shape of wavefront is	A. Spherical B. Cylindrical C. Plane D. None of above
6	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
7	The appearance of colours in the soap (or oil) film results from	A. Dispersion B. Interference C. Reflection D. Refraction
8	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
9	In YDS experiment, fringe spacing means the distance between two consecutive _____ fringes	A. Bright B. Dark C. Any of A or B D. None of these
10	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
11	Which one of the followings can act approximately as a source of monochromatic light	A. Neon lamp B. Fluorescent tube C. Sodium lamp D. None of these
12	Monochromatic light means wave of	A. Same frequency B. Same colour C. Same Wavelength D. All of them
13	Wavelength of red colour as compared to that of violet colour is	A. Smaller B. Longer C. Equal D. None of these
14	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

15	Speed of light in vacuum depends upon	A. Frequency B. Wavelength C. Amplitude D. None of these
16	Huygen principle is used to determine	A. Speed of light B. Location of wavefront C. About polarized and unpolarized light D. None of them
17	Electromagnetic waves transport	A. Energy only B. Momentum only C. Both A and B D. None is correct
18	Light has	A. Wave nature B. Dual nature C. Particle nature D. None of them
19	Frequency of red colour as compared to that of violet colour is	A. Equal B. Smaller C. Greater D. None of these
20	Light waves are	A. Mechanical waves B. Electromagnetic waves C. Any of above D. None of above