

ECAT Physics Chapter 10 Optical Instruments

Sr	Questions	Answers Choice
1	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
2	In case of point source of light, shape of wavefront is	A. Spherical B. Cylindrical C. Plane D. None of above
3	Light waves are	A. Transverse waves B. Longitudinal waves C. Compressional D. None of them wave
4	The property of light which does not change with the nature of the medium is	A. Frequency B. Amplitude C. Wavelength D. None of these
5	The appearance of colours in the soap (or oil) film results from	A. Dispersion B. Interference C. Reflection D. Refraction
6	Angle between ray of light and the corresponding wavefront is	A. 0° B. 60° C. 90° D. 120°
7	The wave nature of light was proposed by	A. Newton B. Thomas Young C. Huygen D. None of these
8	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
9	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
10	Huygen's principle states that	A. Light travels in straight line B. Light has dual nature C. Either of these D. None of these
11	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
12	The terms phase difference and path difference are	A. Same B. Different C. Equal D. none of these
13	Wavelength of red colour as compared to that of violet colour is	A. Smaller B. Longer C. Equal D. None of these
14	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

15	Light waves are	A. Mechanical waves B. Electromagnetic waves C. Any of above D. None of above
16	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
17	Speed of light in vacuum depends upon	A. Frequency B. Wavelength C. Amplitude D. None of these
18	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
19	Frequency of red colour as compared to that of violet colour is	A. Equal B. Smaller C. Greater D. None of these
20	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