ECAT Physics Chapter 10 Optical Instruments Online Test

Sr	Questions	Answers Choice
1	Light has	A. Wave nature B. Dual nature C. Particle nature D. None of them
2	Light waves are	A. Transverse waves B. Longitudinal waves C. Compressional D. None of them wave
3	Wavelength of light, on the average, is given by	A. 10⁻¹⁴m B. 10⁻¹⁰m C. 10⁻⁶m D. 10⁻⁴m
4	Electromagnetic waves transport	A. Energy only B. Momentum only C. Both A and B D. None is correct
5	Light waves are	A. Mechanical waves B. Electromagnetic waves C. Any of above D. None of above
6	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
7	Wavelength of red colour as compared to that of violet colour is	A. Smaller B. Longer C. Equal D. None of these
8	Frequency of red colour as compared to that of violet colour is	A. Equal B. Smaller C. Greater D. None of these
9	Monochromatic light means wave of	A. Same frequency B. Same colour C. Same Wavelength D. All of them
10	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
11	Angle between ray of light and the corresponding wavefront is	A. 0⁰ B. 60⁰ C. 90⁰ D. 120⁰
12	Huygen principle is used to determine	A. Speed of light B. Location of wavefront C. About polarized and unpolarized light D. None of them
13	In case of point source of light, shape of wavefront is	A. Spherical B. Cylindrical C. Plane D. None of above
14	Speed of light in vacuum depends upon	A. Frequency B. Wavelength C. Amplitude D. None of these
15	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
16	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
17	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
18	The wave nature of light was proposed by	A. Newton B. Thomas Young C. Huygen D. None of these
19	Huygen's principle states that	A. Light travels in straight line B. Light has dual nature C. Either of these D. None of these
20	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
21	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
22	The appearance of colours in the soap (or oil) film results from	A. Dispersion B. Interference C. Reflection D. Refraction
23	The appearance of colours in the soap (or oil) film results from	A. Dispersion B. Interference C. Reflection D. Refraction
24	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
25	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
26	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
27	The terms phase difference and path difference are	A. Same B. Different C. Equal D. none of these
28	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
29	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
30	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