ECAT Physics Chapter 10 Optical Instruments

Sr	Questions	Answers Choice
1	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
2	Light waves are	A. Mechanical waves B. Electromagnetic waves C. Any of above D. None of above
3	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
4	Speed of light in vacuum depends upon	A. Frequency B. Wavelength C. Amplitude D. None of these
5	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
6	Huygen principle is used to determine	A. Speed of light B. Location of wavefront C. About polarized and unpolarized light D. None of them
7	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
8	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
9	Angle between ray of light and the corresponding wavefront is	A. 0⁰ B. 60⁰ C. 90⁰ D. 120⁰
10	Electromagnetic waves transport	A. Energy only B. Momentum only C. Both A and B D. None is correct
11	The appearance of colours in the soap (or oil) film results from	A. Dispersion B. Interference C. Reflection D. Refraction
12	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
13	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
14	The wave nature of light was proposed by	A. Newton B. Thomas Young C. Huygen D. None of the

		D. None of these
15	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
16	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
17	Light has	A. Wave nature B. Dual nature C. Particle nature D. None of them
18	Frequency of red colour as compared to that of violet colour is	A. Equal B. Smaller C. Greater D. None of these
19	Wavelength of red colour as compared to that of violet colour is	A. Smaller B. Longer C. Equal D. None of these
20	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