ECAT Physics Chapter 10 Optical Instruments

Sr	Questions	Answers Choice
1	Frequency of red colour as compared to that of violet colour is	A. Equal B. Smaller C. Greater D. None of these
2	The appearance of colours in the soap (or oil) film results from	A. Dispersion B. Interference C. Reflection D. Refraction
3	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
4	In case of point source of light, shape of wavefront is	A. Spherical B. Cylindrical C. Plane D. None of above
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's principle states that	A. Light travels in straight line B. Light has dual nature C. Either of these D. None of these
7	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
8	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
9	Wavelength of light, on the average, is given by	A. 10⁻¹⁴m B. 10⁻¹⁰m C. 10⁻⁶m D. 10⁻⁴m
10	Wavelength of red colour as compared to that of violet colour is	A. Smaller B. Longer C. Equal D. None of these
11	The wave nature of light was proposed by	A. Newton B. Thomas Young C. Huygen D. None of these
12	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
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	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

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	Light has	A. Wave nature B. Dual nature C. Particle nature D. None of them
17	Electromagnetic waves transport	A. Energy only B. Momentum only C. Both A and B D. None is correct
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	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
20	Light waves are	A. Mechanical waves B. Electromagnetic waves C. Any of above D. None of above