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	Huygen's principle states that	A. Light travels in straight line B. Light has dual nature C. Either of these D. None of these
3	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
4	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
5	Huygen principle is used to determine	A. Speed of light B. Location of wavefront C. About polarized and unpolarized light D. None of them
6	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
7	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
8	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
9	Angle between ray of light and the corresponding wavefront is	A. 0⁰ B. 60⁰ C. 90⁰ D. 120⁰
10	The wave nature of light was proposed by	A. Newton B. Thomas Young C. Huygen D. None of these
11	Light waves are	A. Mechanical waves B. Electromagnetic waves C. Any of above D. None of above
12	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
13	Frequency of red colour as compared to that of violet colour is	A. Equal B. Smaller C. Greater D. None of these
14	Electromagnetic waves transport	A. Energy only B. Momentum only C. Both A and B D. None is correct
15	Light waves are	A. Transverse waves B. Longitudinal waves C. Compressional

		D. None of them wave
16	In case of point source of light, shape of wavefront is	A. Spherical B. Cylindrical C. Plane D. None of above
17	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
18	Wavelength of light, on the average, is given by	A. 10⁻¹⁴m B. 10⁻¹⁰m C. 10⁻⁶m D. 10⁻⁴m
19	The appearance of colours in the soap (or oil) film results from	A. Dispersion B. Interference C. Reflection D. Refraction
20	The terms phase difference and path difference are	A. Same B. Different C. Equal D. none of these