ECAT Physics Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	A grating with high resolving power can distinguish _____ difference in wavelengths :	A. Smaller B. Larger C. Zero D. None of these
2	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
3	Frequency of red color as compared to that of violet color is:	A. Equal B. Smaller C. Greater D. None of these
4	In order to get interference using two light rays	A. The sources should be monochromatic and coherent B. The sources should have the same frequency C. Superposition should be linear D. All of these
5	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
6	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
7	When the object lies between F and 2F, the image formed by is formed at:	A. Virtual B. Diminished C. Erect D. Real
8	Which one of the following phenomenon cannot be explained on the bases of Huygen's theory	A. Refraction B. Reflection C. Diffraction D. Formation of spectrum
9	In YDS experiment, fringe spacing means the distance between two consecutive ____fringes.	A. Bright B. Dark C. Any of A and B D. None of these
10	To see the minor details of the object by microscope, it should have:	A. High magnifying power B. High resolving power C. Am objective of larger focal length D. None of these
11	Light appears to travel in straight line because	A. It is not absorbed by the atmosphere B. It is refracted by the atmosphere C. Its wavelength is very small D. Its velocity is very large
12	A prism splits a beam of white light into seven component colors. This is so because	A. Phase of different colors is different B. Amplitude of different colors is different C. Wavelength of different colors is different D. Velocity of different colors is different
13	If the focal length of the convex lens is 5 cm, then to get the real and inverted image of the same size as that of object, the object should be placed at:	A. 15 cm B. 10 cm C. 20 cm D. 5 cm
		A. Bright fringesare wider than dark fringes B. Dark fringes are wider than bright

14	In an interference pattern of Young's double slit(YDS) experiment:	fringes C. Both dark and bright fringes are of equal width D. Central fringes are wider than the outer fringes
15	The locus of all points in a medium having same phase of vibration is called	A. Crest B. Trough C. Wavelength D. Wave-front
16	Light waves are:	A. Transverse wave B. Longitudinal wave C. Compressional wave D. None of them
17	Resolving power in mth order diffraction for grating is given by:	A. R = N x m B. None of these C. R = m/N D. R = N/m
18	A convex lens acts as diverging lens when the object is placed:	A. Beyond 2F B. At 2F C. With focal length D. Between F and 2F
19	The focal length of convex lens having magnifying power of 5.55 is:	A. 5.5 cm B. 5 cm C. 4.5 cm D. 6 cm
20	Light has:	A. Wave nature B. Particle nature C. Dual nature D. None of these