Physics ECAT Pre Engineering Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	If the object is situated at focus of a convex lens, then its image is formed at:	A. F B. 2F C. Infinity D. None of these
2	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
3	The image of an object 5 mm length is only 1 cm high. The magnification produced by lens is:	A. 1 B. 0.2 C. 2 D. 0.1
4	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
5	Frequency of red color as compared to that of violet color is:	A. Equal B. Smaller C. Greater D. None of these
6	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
7	Wave length of that color as compared to that of violet color is:	A. Smaller B. Longer C. Equal D. None of these
8	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
9	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
10	Which one of the following can act approximately as a source of monochromatic light;	A. Neon lamp B. Fluorescent tube C. Sodium lamp D. None of these
11	How is the image formed by a convex lens affected if the upper half of the lens is covered with a paper:	A. The upper half of the image is cut off B. The brightness of the image is reduced C. The brightness of the image is increased D. No effect at all
12	Light has:	A. Wave nature B. Particle nature C. Dual nature D. None of these
13	Speed of light in vacuum depends upon:	A. Frequency B. Wavelength C. Amplitude D. None of these
14	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
15	Resolving power in mth order diffraction for grating is given by:	A. R = N/m B. R = m/N C. R = N x m D. None of these
16	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
17	A grating with high resolving power can distinguish _____ difference in wavelengths :	A. Larger B. Zero C. None of these D. Smaller
18	The magnifier forms a virtual image of the object at:	A. None of these B. Both A and B are correct C. Much farther than the least distance D. Least distance of distinct vision
19	Electromagnetic waves transport:	A. Energy only B. Momentum only C. Both A and B are correct D. None of is correct
20	Least distance of distinct vision of an old man possibly becomes:	A. A little less than 25 cm B. A little more than 25 cm C. Much less than 25 cm D. None of these