

## ECAT Physics Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	In the formula $R = Nx m$ for diffraction grating, N denotes:	A. No. of lines/cm B. No. of lines/meter C. Total number of lines D. None of above
2	Angle between the ray of light and the corresponding wavefront is:	A. 0 <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-size: initial; background-gosition: initial; background-grepat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°</span> B. 60

9	According to Huygen's principle	B. Light is a transvers wave C. Light has dual nature D. All points on the primary wave- front are the sources of secondary wavelets
10	The appearance of the colour in the soap (oil) film results from:	A. Dispersion B. Interference C. Reflection D. Refraction
11	Frequency of red color as compared to that of violet color is:	A. Equal B. Smaller C. Greater D. None of these
12	The locus of all the points in the same phase of vibration is called:	A. Wave packet B. Wave front C. Wave number D. None of them
13	To 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
14	Light has:	A. Wave nature B. Particle nature C. Dual nature D. None of these
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 waves are:	A. Transverse wave B. Longitudinal wave C. Compressional wave D. None of them
17	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
18	When a source of light isat very large distance, the shape of wavefront is:	A. Spherical B. Cylindrical C. Plane D. None of these
19	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
20	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. light travels in straight line