

ECAT Physics Chapter 9 Physical Optics

Sr	Questions	Answers Choice
1	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
2	A virtual image is formed when object is placed:	A. Within focal length of a convex lens B. Near the focal point of a concave lens C. Both A and B D. Away from $2F$ of a convex lens
3	The distance from eye to near point is taken as:	A. 10 cm B. 15 cm C. 20 cm D. 25 cm
4	The appearance of the colour in the soap (oil) film results from:	A. Dispersion B. Interference C. Reflection D. Refraction
5	Wave length of that color as compared to that of violet color is:	A. Smaller B. Longer C. Equal D. None of these
6	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
7	If the object is placed at 12 cm distance from a convex lens of focal length 6 cm, then we get an image of _____ as that of object:	A. Double the size B. Same size C. Half the size D. None of these
8	Wave length of light, on the average, is given by:	A. 10^{14} m B. 10^{10} m C. 10^6 m D. 10^4 m
9	Frequency of red color as compared to that of violet color is:	A. Equal B. Smaller C. Greater D. None of these
10	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
11	The superposition of the two waves of same frequency and amplitude travelling in the same direction gives to an effect called	A. Diffraction B. Interference C. Polarization D. Dispersion
12	The locus of all points in a medium having same phase of vibration is called	A. Crest B. Trough C. Wavelength D. Wave-front
13	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

14	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
15	A convex lens acts as diverging lens when the object is placed:	A. Between F and 2F B. At 2F C. With focal length D. Beyond 2F
16	Angle between the ray of light and the corresponding wavefront is:	A. 0° B. 60° C. 90° D. 120°
17	Light waves are:	A. Transverse wave B. Longitudinal wave C. Compressional wave D. None of them
18	When the object lies between F and 2F, the image formed by is formed at:	A. Virtual B. Diminished C. Erect D. Real
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	The cause of mirage observed in deserts in bright sunlight is due to	A. Refraction of light B. Reflection of light C. Scattering of light D. Total internal reflection of light