

MDCAT Physics Chapter 7 Light Online Test

Sr	Questions	Answers Choice
1	The light signal in graded index fibre is totally confined due to	A. Total internal reflection B. Continuous refraction C. Both a and b D. Dispersion
2	A spectrometer is used to find	A. Wavelength of light B. Refractive index of the prism C. Angle of minimum deviation of prism D. All of these
3	A double convex lens act as a diverging lens when the object is	A. Inside the focus B. Between f and 2f C. At the focus D. At a large distance
4	The resolving power of human eye is	A. $1.22 \lambda / \sin \theta$ B. $2.44 \lambda / \sin \theta$ C. $3.66 \lambda / \sin \theta$ D. $6.6 \lambda / \sin \theta$
5	A fly is sitting on the objective of a telescope pointed towards the moons what effect is impacted in a photograph of the moon taken through the telescope	A. The entire field of vision is blocked B. There is image of the fly on the photograph C. There is no effect at all D. There is the reduction in intensity of the image
6	The magnifying power of a simple microscope can be increased if we use eye piece of	A. Higher focal length B. Smaller focal length C. Higher diameter D. Smaller diameter
7	In a simple microscope if the final image is located at infinity then its magnifying power is	A. $25/f$ B. 25 C. $f/25$ D. $[1 + (25/f)]$
8	The object is placed at the principle focus of a simple microscope if the focal length of the lens is 2cm what is the magnifying power of the microscope	A. 13.5 B. 12.5 C. Infinity D. None of these
9	An object is placed between two parallel mirrors the number of images formed is	A. 2 B. 4 C. 8 D. Infinite
10	The bottom of a container filled with liquid appear slightly raised because of	A. Refraction B. Interference C. Diffraction D. Reflection
11	The brilliance of diamond is	A. Entirely due to refractive index B. Entirely due to total internal reflection C. Partly due to total internal reflection D. None of the above
12	What is the time taken by light to travel 4 mm in a material of refractive index 3	A. 4×10^{-11} s B. 2×10^{-11} s C. 16×10^{-11} s D. 8×10^{-11} s

13	If the power of a lens is 4 diopters then its focal length is	A. 20 cm B. 25 cm C. 50 cm D. 400 cm
14	Television signals are converted into light signals by	A. Decoder B. Transistor C. Photodiode D. Optical fibre
15	In a spectrometer the function of the collimator is to produce	A. Diverging beam of light B. Converging beam of light C. Parallel beam of light D. None of these
16	The wavelength of a refractive wave in a denser medium is	A. Same as that of the incident wave B. Becomes smaller than the incident wave C. Becomes greater than the incident wave D. None of these
17	The minimum distance between a source and the screen for which a real image is possible with a convex lens is	A. Its focal length B. Twice the focal length C. Four times the focal length D. Square of the focal length
18	An object is placed at a distance of 18 cm from a convex lens. The image is formed at a distance of 9 cm. The focal length of the lens is	A. 6 cm B. 9 cm C. 10 cm D. 18 cm
19	Alexander Graham Bell transmitted a voice message via a	A. Beam of light B. Telescope C. Compound microscope D. Mirror
20	In an optical fibre the speed of light is	A. Directly proportional to its refractive index B. Inversely proportional to its refractive index C. Independent of refractive index D. Directly proportional to the square of refractive index