

MDCAT Physics Chapter 7 Light Online Test

Sr	Questions	Answers Choice
1	The relation for the diffraction pattern, when it is minimum	A. $d \sin \theta = \lambda$ B. $\sin \theta = \lambda/2$ C. $d \sin \theta = \lambda$ D. None of these
2	The phenomenon of diffraction also contains the phenomenon of	A. Polarization B. Interference C. Dispersion D. None of these
3	Diffraction of light occurs, due to the interference between rays coming from the same wavefront of	A. The same parts B. The different parts C. Mixed rays D. None of these
4	The phenomenon is found to be prominent when size of the opening (aperture) is	A. Greater than wavelength of light B. Smaller than wavelength of light C. Equal of light used D. None of these
5	If the light travels in a straight line, the central region should appear	A. Bright B. Dark C. No effect D. None of these
6	In Young's double slit experiment for the interference of light, the central region of the fringe system is	A. Bright B. Dark C. Bright and dark D. None of these
7	When a movable mirror moves $\lambda/4$ distance and the light used is 400 nm, then the distance measured highly precise is	A. 100 nm B. 10^{-4} nm C. 10^{-6} nm D. 10^{-5} mm
8	When the movable mirror moves, the distance $\lambda/4$ the total path difference would be	A. 2λ B. λ C. $2\lambda/4$ D. None of these
9	The distance between the two mirrors can be varied by	A. Moving glass plate B. Movable mirror C. Compensator plate D. None of these
10	With the help of interferometer, we can find the	A. Wavelength B. Frequency C. Phase D. None of these
11	The function of compensator plate in interferometer is to	A. Interfere properly B. To equalize the distance of M_1 and M_2 C. Reflecting light properly D. None of these
12	The principle of Michelson's interferometers is	A. Refraction B. Dispersion C. Interference D. Reflection
13	According to the relation for constructive destructive interference, the point of contact has zero thickness of air so it should have	A. No interference B. Constructive interference C. Destructive interference D. None of these
14	Due to Plano convex lens and the plane glass plate the thickness of air film changes from the center to outward	A. Increasing gradually B. Decreasing gradually C. It is constant at the centre D. None of these
15	Newton's rings are formed due to	A. Refraction of light B. Diffraction of light C. Interference of light D. None of these

		D. None of these
16	In Newton's rings the point of contact of the lens and the glass plate, the air film is	A. Minimum B. Maximum C. Zero D. None of these
17	Measurement of a standard metre in terms of the wavelength of red cadmium light is	A. 1,563,163.5 B. 1,553,363.5 C. 155,553.5 D. 1,553,163.5
18	The relation between displacement of the mirror 'L' and wavelength λ of the light used	A. $L = 2m\lambda$ B. $L = \lambda/2m$ C. $L = m\lambda/2$ D. None of these
19	Albert A. Michelson devised interferometer is	A. 1820 B. 1845 C. 1860 D. 1881
20	Michelson's interferometer is an instrument used to measure the distance with	A. Precision B. High precision C. Extremely high precision D. None of these