

MDCAT Physics Chapter 7 Light Online Test

Sr	Questions	Answers Choice
1	In YDS experiment, if the distance between the slits and also the distance between slits and screen is doubled, the fringe width	A. Becomes doubled B. Becomes 4 times C. Is halved D. Remains the same
2	In case of YDS experiment, the distance of the mth bright fringe on the screen from center is	A. $Y = (m + 1) \frac{\lambda L}{d}$ B. $Y = m \frac{\lambda L}{d}$ C. $Y = (m + 1/2) \frac{\lambda L}{d}$ D. None of these
3	In cause of YDS experiment, the distance between adjacent bright fringes is given by	A. $\Delta y = \frac{\lambda L}{d}$ B. $\Delta y = \frac{L}{d} \Delta$ C. $\Delta y = \frac{L}{d} \Delta$ D. None of these
4	In YDS experiment, condition for constructive interference is that path difference is equal to	A. $n \lambda$ B. $m \lambda$ C. $(n + 1/2) \lambda$

		$\frac{\lambda}{2}$; D. $(m + \frac{1}{2})\lambda$
5	Experimental demonstration of wave nature of light was given in 1801 by	A. New ton B. Maxwell C. Thomas young D. Huygen
6	In an interference pattern of Young,s Double Slit (YDS) experiment	A. Bright fringes are wider than dark fringes B. Dark fringes are wider than bright fringes C. Both dark and bright fringes are of equally spaced D. Central fringes are wider than the outer fringes
7	Phase change of 180° is equivalent to a path difference of	A. 2λ B. λ C. $\frac{\lambda}{2}$ D. $\frac{\lambda}{4}$
8	In case of destructive interference of two waves, the amplitude of the resultant wave will be _____ either of the waves	A. Greater then B. Smaller then C. Equal to D. None of these
9	The path difference and phase difference are related to each other as	A. Phase difference = $2\pi \times$ path difference B. Phase difference = $\pi \times$ path difference C. Phase difference = $\frac{\pi}{2} \times$ path difference D. Phase difference = $\frac{\pi}{4} \times$ path difference
10	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
11	A line which represents the direction of travel of a wave is known as	A. Wave front B. Locus C. Ray of light D. Either b and c
12	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
13	Speed of light in vacuum is	A. 0 ms^{-1} B. $3 \times 10^8 \text{ ms}^{-1}$ C. $1.5 \times 10^8 \text{ ms}^{-1}$ D. None of these
14	Angle between ray of light and the corresponding wave front is	A. 10° B. 60° C. 90° D. 120°
15	Monochromatic light directly means waves of	A. Same frequency B. Same color C. Same wavelength D. All of them
16	Wavelength of red color as compared to that of violet color is	A. Smaller B. Longer C. Equal D. None of these
17	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
18	Wavelength of light, on the average, is given by	A. 10^{-14} m B. 10^{-10} m C. 10^{-6} m D. 10^{-4} m
19	Light waves are	A. Transverse waves B. Longitudinal waves C. Compressional wave D. None of these
20	When observed by transmitted light, the central band of newton's ring system consists of:	A. Bright circular ring B. Dark circular ring C. May be bright or dark circular ring D. No interference bands