

MDCAT Physics Chapter 7 Light Online Test

Sr	Questions	Answers Choice
1	The central point in the Newton's rings is dark due to	A. Destructive interference B. Constructive interference C. Additional of path difference D. b and c
2	The setting of Newton's rings is	A. A Plano convex lens and the plane glass plate B. A Plano convex lens and simple glass sheet C. A Plano convex lens (long focal length) and the plane of glass plate D. None of these
3	The Plano-convex lens used in the Newton's rings are of focal length	A. Small B. Long C. Very large D. None of these
4	If the thickness of the film and angle of incidence are such that two reflected waves cancel each other the film will look	A. Dark B. Bright C. May be partly bright D. None of these
5	If the two reflected waves reinforce each other then the film as seen from the parallel beam of monochromatic light will look	A. Dark B. Bright C. Sometimes bright and dark D. None of these
6	In the thin film, the path difference of two reflected ray depends upon	A. Thickness of the film B. Nature of the film C. Angle of incidence D. All of these
7	Colours seen on oily water surface by the incident white light is due to	A. Diffraction B. Interference C. Refraction D. Reflection
8	A thin film is a transparent medium whose thickness with the wavelength of light are	A. Not comparable B. Comparable C. Both D. None of these
9	If $\lambda = 589 \text{ nm}$ $d = 1.0 \text{ mm}$ $L = 225 \text{ cm}$ then fringe spacing ΔY is given by	A. 1.76 mm B. 1.80 mm C. 1.37 mm D. 1.33 mm
10	If $d = 0.25 \text{ cm}$ $Y = 0.059 \text{ cm}$ $L = 100 \text{ cm}$ $m = 2$ then λ is equal to	A. 567 nm B. 569 nm C. 590 nm D. 596 nm
11	If 'd' 'm' and fringe spacing ΔY are known, the interference effect due to light of λ	A. Cannot be determine B. Can be determined in same cases C. Can be determined D. None of these
12	How the fringe spacing varies as the separation of the slits increases	A. Increases B. Decreases C. Increases very little D. None of these
13	The fringe spacing varies directly with	A. Distance L B. Light of wavelength C. Phase coherence D. All of these
14	The fringe spacing in case of blue light	A. Increases B. Remains the same C. Decreases D. None of these

15	The fringe spacing in case of red light	A. Increases B. Decreases C. Remains the same D. None of these
16	In the phenomenon of interference, the bright and dark fringes are of	A. Different width B. Equal width C. Dark fringes are thicker than bright D. Nona of these
17	Fringe spacing ΔY is the distance between two adjacent bring fringes on the screen is	A. $\Delta Y = L\lambda/d$ B. $\Delta Y = Ld/\lambda$ C. $\Delta Y = d\lambda/L$ D. $\Delta Y = L\lambda/d$ m
18	If the bright fringe into be observed then we have relation	A. $Y = mLd/\lambda$ B. $Y = m\lambda L/d$ C. $Y = \lambda d/mL$ D. $Y = \lambda L/md$
19	When ' θ ' is small then	A. $\tan \theta \approx \sin \theta$ B. $\cos \theta \approx \sin \theta$ C. $\sin \theta \approx \tan \theta$ D. None of these
20	Point out angle/angle at which the $\sin \theta$ and $\tan \theta$ have the same value	A. 2° and 8° B. 4° and 6° C. 2° and 4° D. 8° and 10°