MDCAT Physics Chapter 7 Light Online Test

Sr	Questions	Answers Choice
1	The property of bending of light around obstacies is called	A. interference B. reflection C. diffraction D. polarization
2	The length of the standard metre measured by Michelsion's interferometer comes out to be	A. 1,553, 163.5 wavelength B. 1553.5 wavelength C. 155316.5 wavelength D. none of them
3	If the wavelength of light used in Michelsion's interferometer is 400 nm and the moveable mirror only moved through$\lambda/4$, then the length moved will be	A. 10 nm B. 10⁻²mm C. 1 nm D. 10⁻⁴mm
4	Wavelength of X-rays falling at a glancing angle of 30° on a crystal with atomic spacing 2 x 10^{-10}m for first order diffraction is	A. 4 x 10⁻¹⁰m B. 2 x 10⁻¹⁰m C. 0.2 x 10⁻¹⁰m D. 20 x 10⁻¹⁰m
5	In Michelsion's interoferometer, if the moveable mirror is moved through a distance 0.05 mm and 500 finges are observed, then the wavelength of light used is	A. 1 x 10⁻⁷m B. 2 x 10⁻⁷m C. 1.5 x 10⁻⁷m D. 1 x 10⁻⁸m
6	In Michelsion's interferometer, if 'm' number of fringes are passed in front of a reference point when the moveable mirror is moved a distance L, then	A. L = mλ B. L = 2mλ C. L = mλ/2 D. L = 3/2 mλ
7	In Michelsion's interferometer, if a dark fringe is seen in the beginning, the next dark fringe will appear by moving the moveable mirror through a distance	A. λ/2 B. λ/4 C. λ D. 2λ
		A. λ/2 B. <span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 18px; text-

8	Successive dark and bright fringes are formed each time the moveable mirror in Michelsion's interferometer is moved a distance	Roman"; font-size: 18px; text-align: center; background-color: rgb(255, 255, 248);">λ/4 C. λ D. 3/2λ
9	If the moveable mirror in Michelsion's interferometer moves a distanceλ/2, the path difference changes by	A. λ/4 B. λ/2 C. λ D. 3/2λ
10	In Michelsion's interferometer the path difference is varied by moving	A. compensatory plate B. moveable mirror C. fixed mirror D. telescope
11	Michelesion's interferometer is an instrument usually used to measure	A. intensity of light B. speed of light C. wavelength of light D. dispersion of light
12	The idea of Michelsion's interferometer is based on the	A. reflection of light B. interference of light C. refraction of light D. all of them
13	Michelsion devised the Michelson's interferometer in	A. 1981 B. 1891 C. 1851 D. 1881
14	Michelson's interferometer is an instrument that is capable of measuring distance with	A. low precision B. high precision C. extremely high precision D. extremely low precision
15	At the point of contact of the lens and the glass plate, the incident and reflected rays interfere	A. constructively B. destructively C. either of them D. none of them
16	Newton's rings are formed as a result of	A. diffraction of light B. dispersion of light C. interference of light D. polarization of light
17	At the point of contact of the lens and the glass plate, the Newton's ring is	A. dark B. bright C. either of them D. neither of them
18	In the Newton's ring, as we proceed towards the periphery of the lens, the thickness of air film	A. gradually decreases B. gradually increases C. suddenly becomes zero D. all of them
19	In Newton's rings the thickness of air film at the point of contact is	A. maximum B. minimum C. equal to wavelength D. zero
20	In the thin film, the path difference between the two reflecting waves depends upon	A. thickness of film B. nature of film C. angle of incidence D. all of them