MDCAT Physics Chapter 7 Light Online Test

Sr	Questions	Answers Choice
1	In a spectrometer experiment monochromatic light is incident normally on a diffraction grating having 4.5 x 105 lines per meter.The second order line is seen at an angle of 30 to the normal what is the wavelength of the light?	A. 200 nm B. 430 nm C. 500 nm D. 556 nm
2	The light signals are sent from the source	A. A ordinary source B. A monochromatic light source C. A moulticolour source D. None of these
3	When the light from two lamps falls on a screen, no interference pattern can be obtained. Why is this?	A. the light from the lamps is white B. the lamps emit light of different amlitudes C. the light from the lamps is not coherent D. the lamps are not point sources
4	The distance between different interference fringes are:	A. Variable B. Same C. Different D. None of these
5	Which of the following cannot be polarized?	A. x-rays B. light rays C. sound waves D. ultraviolet rays
6	To observe the phenomenon of interference of light, the light should be	A. Monochromatic B. Phase coherence C. Coherent sources D. All of these
7	The time taken by the mirror M to rotate through an angle 2π/8 is	A. 1/8 f B. 1/16 f C. 1/4 f D. 1/2 f
8	If plane polarized light is incident on the second sheet of Polaroid, the light emitted is full light when their axes are	A. Parallel to each other B. Perpendicular to each other C. In between two positions D. None of these
9	A simple astronomical telescope consists of	A. Two convex lenses B. Three convex and one cocave C. Two concave lens D. None of these
10	The principle of Michelson's interferometers is	A. Refraction B. Dispersion C. Interference D. Reflection
11	When monochromatic light is incident, making certain angle, on a thin parallel film, the interference fringes formed are	A. straight B. circular C. square D. plane
12	The final image obtained by astronomical telescope is	A. Inverted w.r.t object B. Magnified C. Virtual D. All of them
13	Laws of reflection and refraction can also be explained by:	A. Particle nature of light B. Quantum nature of light C. Wave nature of light D. Complex nature of light
14	Which of the following light move faster in water	A. Red B. Violet C. Green D. Blue
15	Which type of fibre is used to send the signals of long distances?	A. single mode step index fibre B. multimode step index fibre C. multimode graded index fibre

		D. all of them
16	Which of the following is an optically active material	A. Solution of cane sugar B. Liquid nitrogen C. Mercury D. Polaroid
17	Which of the following spectrum have all the frequencies from high to low frequency range?	A. Band spectrum B. Continuous spectrum C. Line spectrum D. Discontinuous spectrum
18	Which one of the following phenomena is not explained by Huygen's construction of wavefront?	A. Refraction B. Reflection C. Diffraction D. Origin of spectra
19	Who devise the experimental arrangement in 1801 for studying interference effects of light	A. Huygen B. Young C. Newton D. None of these
20	The light source in the transmitter can be either	A. Light emitting diode B. Semiconductor laser C. Light emitting in an invisible infra red D. All of these