

MDCAT Physics MCQ's Test

Sr	Questions	Answers Choice
1	A parallel plate air capacitor is charged and then isolated. When a dielectric material is inserted between the plates of the capacitor , then which of the following does not change:	A. Electric field between the plates B. Charge on the plates C. Potential difference across the plate D. Energy stored in the capacitor
2	The valence band of an atom in a solid	A. is always empty B. may or may not be empty C. can never be empty D. none of them
3	The wavelength of X-rays is about	A. 10^{-14} m B. 10^{-10} m C. 10^{-6} m D. 10^{-4} m
4	Light of frequency $4f_0$ is incident on the metal of the threshold frequency f_0 . The maximum kinetic energy of the emitted photoelectrons is	A. $3hf_0$ B. $\frac{3}{2}hf_0$ C. $2hf_0$ D. $\frac{1}{2}hf_0$
5	We can use Fibre optics system for	A. Image transmitting B. Word processing C. Image processing and recelving D. All
6	Polaroid glass is used in sun glasses because	A. It is fashionable B. It has good color C. It is cheaper D. It reduces the light intensity to half on account of polarization
7	Using a graded index fibres the time difference is reduced to about	A. 0.5 ns per km B. 1.0 ns per km C. 2.0 ns per km D. 2.3 ns per km
8	The ratio of diameters of two convex lenses is _____ the ratio of their focal lengths	A. Greater than B. Less than C. Equal to D. Square of
9	A _____ lens is used in the apparatus to get Newton,s rings	A. Plano-concave B. Plano-convex C. Convexo-concave D. Double convex
10	In photo phone modulated beam of reflected sun light focused on a detector several hundred meters away with the device	A. Germanium B. Selenium C. Silicon D. None of these
11	The temperature at which the vibrations become so great that structure of the crystal breaks up, is called:	A. Critical temperature B. Temperature of vaporization C. Melting point D. Both A and C E. Both A and B
12	In an explosion a body breaks up into two pieces of unequal masses. In this:	A. Both parts will have numerically equal momentum B. Lighter part will have more momentum C. Heavier part will have more momentum D. Both parts will have equal kinetic energy
13	A line normal to the wave front is called	A. A beam of light B. A ray of light C. Both D. None of these
14	The limit up to which the stress is directly proportional to strain is called	A. Elastic limit B. Proportional limit C. Breaking limit

		D. Ultimate tensile limit
15	If source and observer are moving towards each other with same speed and after crossing they are receding each other then frequency observed by observer:	A. Decreases B. Remains constant C. Increases D. First Increases then decreases
16	Polaroids are used in	A. Sun glasses B. The production and analysis of plane polarized light C. Stereoscopic motion picture D. All of these
17	The momentum of a particle is numerically equal to its K.E. What is the velocity of a particle?	A. 9 ms^{-1} B. 3 ms^{-1} C. 2 ms^{-1} D. 1 ms^{-1}
18	The unit of gain (G) for non-inverting amplifier is	A. Ampere B. ohm C. Volt D. None of these
19	A stationary wave is established in a string which vibrates in four segments at a frequency of 120 Hz. Its fundamental frequency is:	A. 15Hz B. 60Hz C. 30Hz D. 430Hz
20	The greatest stress that a material can endure without losing the proportionality between stress and strain is called	A. Plasticity B. Breaking point C. Proportional limit D. Strain