

NAT I Engineering Physics

Sr	Questions	Answers Choice
1	A person standing near the track of a fast moving train has tendency to fall towards it because of	A. Vibration due to motion of train B. Gravitation force of attraction between person and trains C. The high speed of train D. Some other effect
2	One cannot see through fog because	A. Fog absorbs light B. The refractive index of fog is infinity C. Light suffers total reflection at the droplet in a fog D. Light is scattered by the droplets in fog
3	The angle between rectangular components of a vector is	A. 0° B. 60° C. 90° D. 120°
4	A moving charge will gain energy due to the application of	A. Electric field B. Magnetic C. Both of these D. None of these
5	For obtaining appreciable extension the wire should be	A. Short and thin B. Long and thin C. Short and tick D. Long and thick
6	In case of p-n junction diode at high value of reverse bias the current rises sharply The value of reverse bias is known as	A. Cut off voltage B. Zener voltage C. Inverse voltage D. Critical voltage
7	The peak voltage in a 200 volt A.C supply is nearly	A. 220 B. 253 C. 311
8	The twinkling of stars is due to	A. The fact that stars do not emit light continuously B. The refractive index of the earth's atmosphere fluctuate C. Intermittent absorption of star light by its own atmosphere D. None of them
9	The nuclear model of atom was proposed by	A. J.J Thomson B. E.Rutherford C. Neil Bohr D. Summerfield
10	A conducting wire is drawn to double its length Final resistivity of the material will be	A. Double of the original one B. Half of the original one C. One-fourth of the original one D. Same as original one
11	Angular momentum is	A. Vector (axial) B. Vector (polar) C. Scalar D. None of these
12	An ideal choke (used along with fluorescent tube) would be	A. A pure resistor B. A pure capacitor C. A pure inductor D. A combination of an inductor and a capacitor
13	The de broglie wave corresponding to a particle of mass m and velocity v has a wavelength associated with it	A. h/mv B. $hm v$ C. mh/v D. m/hv
14	The mass defect for the nucleus of helium is 0.0303 a.m.u What is the binding energy per nucleon for helium in MeV?	A. 28 B. 7 C. 4 D. 1

15	The structure of solids is investigated by using	A. Cosmic Rays B. X-rays C. Intra red Radiation D. y-rays
16	The fundamental unit which has same power in the dimensional formula of surface tension and viscosity is:	A. Mass B. Length C. Time D. None
17	In an L-R circuit time constant is that time in which current grows from zero to the value	A. $0.63 I_0$ B. $0.50 I_0$ C. $0.73 I_0$ D. I_0
18	The direction of induced current is such that it opposes the very cause that has produced it This is the law of	A. Lenz B. Faraday C. Kirchoff D. Fleming
19	As the electron in Bohr orbit of hydrogen atom passes from stat $n = 2$ to $n = 1$ the kinetic energy K and potential energy U change as	A. K two-fold, U also two-fold B. K four-fold, U also four-fold C. K four-fold, U two-fold
20	A body moving in circular motion with constant speed has	A. Constant velocity B. Constant acceleration C. Constant kinetic energy D. Constant displacement