

Physics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	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
2	The dimensional formula of torque is:	A. $[ML^2T^{-2}]$ B. $[ML^2T^{-1}]$ C. $[ML^2T^{-2}]$ D. $[ML^2T^{-1}]$
3	In a common base transistor circuit the current gain is 0.98. On changing the emitter current by 5.00 mA, the change in collector current is:	A. 0.196 mA B. 2.45 mA C. 4.9 mA D. 5.1 mA
4	A p-n junction has a thickness of the order of	A. 1 cm B. 1 mm C. 10^{-6} cm D. 10^{-12} cm
5	If the period of oscillation of mass (M) suspended from a spring is 2s, then the period of mass 4M will be	A. 1 s B. 2 s C. 3 s D. 4 s
6	Energy is stored in the choke coil in the form of	A. Heat B. Magnetic energy C. Electric energy D. Electro-magnetic energy
7	A (100 W, 200 V) bulb is connected to a 160 V power supply. The power consumption would be	A. 64 W B. 80 W C. 100 W D. 125 W
8	The average binding energy of a nucleon inside an atomic nucleus is about	A. 8 MeV B. 8 eV C. 8 Joules D. 8 ergs
9	In which of the following states does the incandescent substance give continuous spectrum?	A. Vapours in atomic state B. Vapours in molecular state C. Solid or fluid in bulk state D. Solid or fluid in plasma state
10	The terminal velocity of a small size spherical body of radius R moving in a fluid varies as	A. R B. R^2 C. $1/R$ D. $(1/R)^2$
11	The half life of a radio-isotope is 5 years The fraction of atoms decayed in this substance after 15 years will be	A. 1 B. $3/4$ C. $7/8$ D. $5/8$
12	A bullet is shot from a rifle. As a result the rifle recoils, The kinetic energy of rifle as compared to that of bullet is	A. Less B. Greater C. Equal D. Cannot be concluded

13	Which of the following particle would experience the largest magnetic force when projected with the same velocity perpendicular to a magnetic field?	A. Proton B. Electron C. He ⁺ D. Li ⁺
14	In which region of electromagnetic spectrum does the Lyman series of hydrogen atom lie	A. Ultraviolet B. Infra red C. Visible D. X-ray
15	The number of translation degrees of freedom for a diatomic gas is	A. 2 B. 3 C. 5 D. 6
16	If the earth were to rotate faster than its present speed the weight of an object will	A. Increase at the equator but remain unchanged at the poles B. Decrease at the equator but remain unchanged at the poles C. Remain unchanged at the decrease but decrease at the poles D. Remain unchanged at the equator but increase at the poles
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 sum of the magnitude of two forces acting at a point is 18 and the magnitude of their resultant is 12. If the resultant is at 90° with the force of the smaller magnitude then their magnitude are:	A. 3, 15 B. 4, 14 C. 5, 13 D. 6, 12
19	Absolute temperature can be calculated by	A. Mean square velocity B. Motion of the molecule C. Both (A) and (B) D. None of these
20	A capacitor acts as an infinite resistance for	A. AC B. DC C. Both AC and DC