Physics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	Electrons in the atom are held in the atom due to	A. Coulomb forces B. Nuclear forces C. Gravitational forces D. Van der Waal's forces
2	In an AC circuit a resistance of R ohm i connected in series with an inductance L if phase angle between voltage and current be 45^{o} the value of inductive reactance will be	A. R/4 B. R/2 C. R
3	If a diamagnetic substance is brought near north or south pole of a bar magnet it is	A. Attracted by the poles B. Repelled by the poles C. Repelled by north pole and attracted by the south pole D. Attracted by the north pole and repelled by the south pole
4	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
5	The number of translation degrees of freedom for a diatomic gas is	A. 2 B. 3 C. 5 D. 6
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 train of 150 m length is going towards north direction at a speed of 10 ms^{-1} A parrot flies at a speed of 5 ms^{-1} towards south direction parallel to the railway track,The time taken by the parrot to cross the train is equal to	A. 12 s B. 8 s C. 15 s D. 10 s
8	A point charge Q is placed at the mid-point of a line joining two charges 4q and q. if the net force on charge q is zero. then Q must be equal to	A. -q B. +q C. -2q D. +4q
9	The primary winding of transformer has 500 turns whereas its secondary has 5000 turns The primary is connected to an a.c supply of 20 V, 50 Hz The secondary will have an output of	A. 200 V, 50 Hz B. 2 V, 50 Hz C. 200 V, 500 Hz
10	A body moves a distance of 10 m along a straight line under the action of a force of 5 Newtons, if the work done is 25 joules the angle which the force takes with the direction of motion of the body is:	A. 0° B. 30° C. 60° D. 90°
11	A prism splits a beam of white light into its seven constituent colors this is so because	A. Phase of different colors is different B. Amplitude of different colors is different C. Energy of different colors is different D. Velocity of different colors is different
12	A charge Q is divided into two parts q and Q - q and separated by a distance R. the force of repulsion between them will be maximum when:	A. q = Q/4 B. q = Q/2 C. q = Q D. None of these
13	Which of the following is equal to: joule x ohm / volt x second ?	A. Ampere B. Volt C. Watt D. Tesla
14	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
		A. Equal to water

15	Blood has a density	B. Greater then water C. Lesser then water D. None of these
16	Copper and germanium are cooled to 70 K from room temperature then	A. Resistance of copper increases while that of germanium decreases B. Resistance of copper decreases while that of germanium increases C. Resistance of both decreases D. Resistance of both increases
17	For production of beats the two sources must have	A. Different frequencies and same amplitude B. Different frequencies C. Different frequencies same amplitude and same phase D. Different frequencies and same phase.
18	A cable breaks if stretched by more than 2 mm it is cut into two equal parts how much either part can be stretched without breaking?	A. 0.25 m B. 0.5 m C. 1 mm D. 2 mm
19	The dimensional formula of toque is:	A. [ML²T²] B. [ML T ²] C. [ML ⁻¹T ⁻²] D. [ML ⁻²T ⁻²]
20	A capacitor acts as an infinite resistance for	A. AC B. DC C. Both AC and DC