Physics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	The velocity of a particle at an instant is 10 m/s and after 5 s the velocity of the particle is 20 m/s.The velocity 3s before in m/s is:	A. 8 B. 4 C. 6 D. 7
2	What is the average energy of N molecules of monoatomic gas?	A. 1/2 NkT B. NkT C. 3/2 NkT D. 5/2 NkT
3	A ten-ohm electric heater operates on a 110 V line Calculate the rate at which it develops heat in watts:	A. 1310 W B. 670 W C. 810 W D. 1210 W
4	If the metal bob is a simple pendulum is replaced by a wooden bob, then its time period will	A. Increase B. Decreases C. Remain the same D. First 'A' then 'B'
5	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
6	The nucleus 6C12 absorbs an energetic neutron and emits a beta particle (β) The resulting nucleus is	A. ₇N¹⁴ B. ₅B¹³ C. ₇N¹³ D. ₆N¹³
7	The acceleration 'a' in m/s^2 of a particle is given by $a = 3t^2 + 2t + 2$,where 't' is the time if the particle starts out with a velocity v = 2 m/s at t = 0, then the velocity at the end of 2 second is	A. 12 m/s B. 24 m/s C. 18 m/s D. 36 m/s
8	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
9	Energy is stored in the choke coil in the form of	A. Heat B. Magnetic energy C. Electric energy D. Electro -magnetic energy
10	What is the ratio of r.m.s velocity for O_2 to H_2?	A. 1/4 B. 4 C. √4 : 1 D. 1 : √4
11	A body moving in circular motion with constant speed has	A. Constant velocity B. Constant acceleration C. Constant kinetic energy D. Constant displacement
12	Relation between pressure (P) and energy (E) of a gas is	A. P = 2/3 E B. P = 1/3 E C. P = 3/2 E D. P = 3 E
		A. √m₁ : √m₂ B. m₁: <span style="font-size:

13	Two bodies of masses m_1 and m_2 have equal momentum their kinetic energies E_1 and E_2 are in the ratio	14.44444465637207px;">m ₂ C. m ₂: m ₁ D. m ₁ ² : m ₂²
14	For obtaining appreciable extension the wire should be	A. Short and thin B. Long and thin C. Short and tick D. Long and thick
15	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
16	Which of the following four statements is false?	A. A body can have zero velocity and still be accelerated B. A body can have a constant velocity and still have a varying speed C. A body can have a constant speed and still have a varying velocity D. The direction of the velocity of a acceleration is constant
17	The time period of a simple pendulum is 2 seconds if its length is increased by 4 times then its period becomes	A. 16 s B. 12 s C. 8 s D. 4 s
18	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
19	Huygen's wave theory of light cannot explain	A. Diffraction B. Interference C. Polarization D. Photoelectric effect
20	The magnetic moment of a circular coil carrying current is	A. Directly proportional to the length of the wire in the coil B. Inversely proportional to the length of the wire in the coil C. Directly proportional to the square of the length of the wire in the coil D. Inversely proportional to the square of the length of the wire in the coil