

Physics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	Which quantity is increased in step-down transformer?	A. Current B. Voltage C. Power D. Frequency
2	The initial velocity of a body moving along a straight line is 7 m/s. It has a uniform acceleration of 4 m/s^2 . The distance covered by the body in the 5th second of its motion is	A. 25 m B. 35 m C. 50 m D. 85 m
3	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'
4	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
5	Choose the correct statement	A. Both an ammeter and voltmeter should have small resistance B. Both an ammeter and a voltmeter should have large resistance C. An ammeter should have large resistance and a voltmeter should have small resistance D. An ammeter should have small resistance and a voltmeter should have large resistance
6	A person standing on a rotating platform has his hands lowered He suddenly outstretches his arms. The angular momentum	A. Becomes zero B. Increases C. Decreases D. Remains the same
7	The dimensional formula for the modulus of elasticity is same as that for.	A. Stress B. Strain C. Velocity D. Surface tension
8	At constant volume temperature is increased then	A. Collision on walls will be less B. Number of collisions per unit time will increase C. Collisions will be in straight lines D. Collisions will not change
9	How does the Young's modulus vary with the increase of temperature?	A. Decrease B. Increase C. Remains constant D. First increases and then decreases
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	Energy is stored in the choke coil in the form of	A. Heat B. Magnetic energy C. Electric energy D. Electro -magnetic energy
12	At 0° K which of the following properties of a gas will be zero?	A. Kinetic energy B. Potential energy C. Vibrational energy D. Density
13	In a simple harmonic motion the kinetic energy (KE) and the potential energy (PE), are such that throughout the motion	A. KE remains constant B. PE remains constant C. KE/PE is constant D. KE + PE remains constant
14	How much water a pump of 2kW can raise in one minute to a height of 10 m. take $g = 10$	A. 1000 liters B. 1200 liters

m/s²?

C. 100 liters
D. 2000 liters

15 Steel is preferred for making springs over copper. Why?

A. Steel is cheaper
B. Young's modulus of steel is more than that of copper
C. Young's modulus of copper is more than that of steel
D. Steel is less likely to be oxidized

16 The frequency of the incident light falling on a photosensitive metal plate is doubled the kinetic energy of the emitted photoelectrons is

A. Double the earlier value
B. Unchanged
C. More than doubled
D. Less than doubled

17 Ball pen function on the principle of

A. Viscosity
B. Boyle's law
C. Gravitational force
D. Surface tension

18 In an ac circuit with voltage V and current I the power dissipated is

A. VI
B. 1/2 VI
C. 1/√2 VI
D. Depends on the phase between V and I

19 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

20 A photocell with a constant p.d of V volt across it illuminated by a point source from a distance of 25 cm. When the source is moved to a distance of 1 m, the electrons emitted by the photocell

A. Carry 1/4th their previous energy
B. Are 1/6th as numerous as before
C. Are 1/4th as numerous as before
D. Carry 1/4th their previous momentum