

## Physics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	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 <b>C. More than doubled</b> D. Less than doubled
2	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
3	At constant volume temperature is increased then	A. Collision on walls will be less <b>B. Number of collisions per unit time will increase</b> C. Collisions will be in straight lines D. Collisions will not change
4	Which quantity is increased in step-down transformer?	A. Current B. Voltage C. Power D. Frequency
5	A p-n junction has a thickness of the order of	A. 1 cm B. 1 mm <b>C. <math>10^{-6}</math> cm</b> D. $10^{-12}$ cm
6	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. $0^\circ$ B. $30^\circ$ <b>C. <math>60^\circ</math></b> D. $90^\circ$
7	Which one of the following is a simple harmonic motion?	A. Wave moving through a string fixed at both ends. B. Earth spinning about its own axis C. Ball bouncing between two rigid vertical walls D. Particle moving in a circle with uniform speed.
8	What remains constant in the field of central force?	A. Potential energy B. Kinetic energy <b>C. Angular momentum</b> D. Linear momentum
9	The initial velocity of a body moving along a straight line is 7 m/s. It has a uniform acceleration of $4 \text{ m/s}^2$ . 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
10	Which of the following lists of physical quantities consists only of vectors:	A. Time, temperature, velocity B. Force, volume, momentum C. Velocity, acceleration, mass <b>D. Force, acceleration, velocity</b>
11	The conductivity of a superconductor is	A. Infinite B. Very large C. Very small D. Zero
12	The essential distinction between X-rays and y-rays is that	A. y-rays have smaller wavelength than X-rays B. y-rays emanate from nucleus while X-rays emanate from outer part of the atom C. y-rays have greater ionizing power than X-rays D. y-rays are more penetrating than X-rays
13	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 fluctuates C. Intermittent absorption of star light by its own atmosphere

D. None of them

14 A couple produces

A. Purely linear motion  
B. Purely rotational motion  
C. Linear and rotational motion  
D. No motion

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15 Energy is stored in the choke coil in the form of

A. Heat  
B. Magnetic energy  
C. Electric energy  
D. Electro -magnetic energy

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16 At a certain instant a stationary transverse wave is found to have maximum kinetic energy the appearance of string of that instant is:

A. Sinusoidal shape with amplitude A/3  
B. Sinusoidal shape with amplitude A/2  
C. Sinusoidal shape with amplitude A  
D. Straight line

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17 Radio waves of constant amplitude can be generated with

A. Rectifier  
B. Filter  
C. FET  
D. Oscillator

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18 When the displacement is half of the amplitude the ratio of potential energy to the total energy is

A. 1/2  
B. 1/4  
C. 1  
D. 1/8

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19 Bernoulli's equation is based upon law of conservation

A. Mass  
B. Momentum  
C. Energy  
D. None of these

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20 The terminal velocity of a small size spherical body of radius R moving in a fluid varies as

A. R  
B.  $R^{sup>2</sup>}$   
C. 1/R  
D.  $(1/R)^{sup>2</sup>}<br>$