

PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	The number 0.02×10^{-8} in standard form will be written as.	<p>A. 2×10^{-10}</p> <p>B. 2×10^{-8}</p> <p>C. 20×10^{-8}</p> <p>D. 20×10^{-6}</p>
2	The value of 'g' is maximum	<p>A. Above the earth's surface</p> <p>B. Below the earth's surface</p> <p>C. At the earth's surface</p> <p>D. At the centre of earth</p>
3	Which of the following is not SI base unit.	<p>A. kilogram</p> <p>B. Ampere</p> <p>C. Coulomb</p> <p>D. Mole</p>
4	In an elastic collision	<p>A. K.E. is conserved</p> <p>B. Both K.E. and momentum are conserved</p> <p>C. K.E. is not conserved</p> <p>D. Only momentum is conserved</p>
5	The SI unit of impulse is.	<p>A. N m</p> <p>B. N s</p> <p>C. Kg ms⁻¹</p> <p>D. Both b and c</p>
6	The dimensions of force are.	<p>A. [MLT⁻²]</p> <p>B. [MLT⁻¹]</p> <p>C. [M, -1T⁻²]</p> <p>D. [M⁻²T⁻²]</p>
7	a 2,000 kg heavy truck travelling at 36 km h ⁻¹ strikes a tree and comes to a stop in 0.1 s The average force on the truck during the crash is.	<p>A. 2×10^2 N</p> <p>B. 2×10^3 N</p> <p>C. 2×10^4 N</p> <p>D. 2×10^3 N</p>
8	A mason of 9.8 N weight is climbing on a 20 m high ladder The P.E. of mason at the middle of ladder is.	<p>A. 98 J</p> <p>B. 196 J</p> <p>C. 960.4 J</p> <p>D. 980 J</p>
9	In planetary motion	<p>A. Angular speed remains constant</p> <p>B. Angular momentum remains constant</p> <p>C. Linear speed remains constant</p> <p>D. Linear momentum remains constant</p>
10	The horizontal distance of a projectile from the point of launch to the point of impacts is called.	<p>A. Height of projectile</p> <p>B. Range of projectile</p> <p>C. Path of projectile</p> <p>D. Angle of projectile</p>
11	Angular simple harmonic motion is.	<p>A. Periodic rectilinear motion</p> <p>B. Independent of any applied torque</p> <p>C. Periodic rotational motion</p> <p>D. Never defined</p>
12	When a projectile reaches the highest point the vertical component of velocity becoems.	<p>A. Small</p> <p>B. $V_i \cos \theta$</p> <p>C. Zero</p> <p>D. Maximum</p>
13	The field in which the work done is independent of the path followed.	<p>A. Conservative field</p> <p>B. Electric field</p> <p>C. Magnetic field</p> <p>D. Non conservative field</p>
14	A spring of force constant k is cut into three equal parts. The force constant of each part will be.	<p>A. k</p> <p>B. $3k$</p> <p>C. $k/3$</p> <p>D. $k/2$</p>
		A. Centripetal

15	Restoring force in SHM is.	B. Frictional C. Conservative D. Non conservative
16	If velocity is doubled then	A. Momentum increase 4 time and K.E. increase 2 times B. Momentum increases 2 times and K.E. remains constant C. Momentum increases 2 times and K.E. increases 4 times D. Both momentum and K.E. remain constant
17	The dimensional formula for torque is identical to.	A. Kinetic energy B. Pressure energy C. Moment of force D. All of the above
18	Which of the following is an example of negative work.	A. a thrown up cricket ball B. Grass mower C. A car on road D. Bucket in the well
19	The curve between the acceleration and velocity of a body in SHM is a	A. Circle B. Ellipse C. Square D. Parabola
20	Which quantity has dimensions different from the others.	A. Energy per unit volume B. Force per unit area C. Angular momentum per unit mass D. Pressure