PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	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
2	A force passing through the centre of gravity of a body	A. Causes its translational motion B. Causes its rotational motion C. Holds the body in equilibrium D. Produces both translational and rotational motion.
3	A body of mass 1 kg hanging with a spring of spring constant 60 N m-1 is rotation in a horizontal circle The values of angular frequency will be.	A. 80 .94 Hz B. 89. 4 Hz C. 98. 4 Hz D. 108 . 6 Hz
4	Linear acceleration of a point moving in a circle of radius 30 cm with angular acceleration of 0.5 rad s-2 is	A. 1.5 cm s-2 B. 2.5 cm s-2 C. 10 cm s-1 D. 15 cm s-2
5	The period of a geostationary satellite is.	A. 32 hours B. 72 hours C. 48 hours D. 96 hours
6	Which of the following will not acceleation.	A. The moon in its orbit B. A tennis ball rebounding from ground C. A store in free fall D. A car in which the engine thrust is equal to the friction
7	Which one of the following is not a dimensionless quantity.	A. Radian B. pi C. Decibel D. Force
8	The field in which the work done is independent of the path followed.	A. Conservative field B. Electric field C. Magnetic field D. Non conservative field
9	Kinetic and potential energies are	A. Not inter convertible B. Inter convertible C. Two forms of torque D. Not related with each other
10	The wave form of SHM is a	A. Sine wave B. Cosine wave C. Square wave D. Electromagnetic wave
11	When net force acting on a system is zero which of the following will be constant.	A. Force B. Linear momentum C. Angular momentum D. Linear impulse
12	The velocity of an object when projected from the earth in order to escape the earth's gravitational field is called the.	A. Terminal velocity B. Average velocity C. Instant aeneous velocity D. Escape velocity
13	The point of which an applied force produces a linear acceleration but no rotation is called.	A. Centre of the body B. Centre of the mass C. Centre of gravity D. Weight of the body
14	A force of 100 N acts on body of mass 5 kg for 10 s. The velocity of the body will be.	A. 2 ms -1 B. 20 m s-1 C. 200 ms-1

		D. 2.000 m s-1
15	The unit of energy are the same as that of	A. Force B. Power C. Work D. Efficiency
16	If two different masses have same momentum then the lighter one has more.	A. K.E. and velocity B. Velocity only C. Both K.E. and P.E. D. Only P.E
17	When a force of 4 N acts on a body of mass 2 kg for a time of 2 s, the rate of change of momentum is.	A. 2 kg ms -1 B. 4 kg ms-1 C. 8 kg m s-1 D. 16 kg m s-1
18	On the ground the gravitational force on a satellite is W What is the gravitational force on the satellite when at height R/50	A. 0.96 W B. 0.98 W C. 1.04 W D. 1.02 W
19	A body is termed as perfectly elastic if.	A. It can move freely B. Its surface is perfectly somooth C. It is not affected by an external force D. It recovers the original shape when the deforming force is remover
20	The action and reaction forces	A. Must act upon the same body B. Must act upon different bodies C. Must be equal in magnitude but need not have the same line of action. D. Different speed at the different height during ascent and during descent.