PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	A constant mass undergoes uniform acceleration the correct statement about the resultant force acting on the mass is.	A. It increases uniformly w.r.t time B. It is constant but not zero C. It is proportional to the displacement from a fixed point D. It is proportional to the verlocity
2	The gravitational field strength at a point p on the earth's surfae is numerically equal to.	A. The acceleration of free fail at p B. The change in P.E. per unit distance at P C. The change in P.E. per unit distance at P D. The work done in bringing unit mass from infinity to P
3	A diver leaving the diving board makes a somer sault in the air.	A. This is due to gravitational force B. The moment of inertia is decreased during the turn C. His moment of inertia is increased D. He pushes at the air for making the true
4	A body attached to a spring is pulled to a distance of 20 cm If the value of spring constant is 48 N m-1, the amount of force applied will be.	A. 4.8 N B. 9.6 N C. 96 N D. 192 N
5	Light year is a unit of	A. Light B. Velocity C. Time D. Distance
6	Time period of a simple pendulum depends upon.	A. Thickness of the thread B. Mass of the pendulum C. Length of the pendulum D. Amplitude of vibration
7	The dimensions of work are	A. [MLT-2] B. [ML2T-2] C. [ML2T-1] D. [MLT-1]
8	If an elevator is moving vertically up with an acceleration 'a' the force exerted on the floor by a passing of mass 'm' is	A. Ma B. Mg C. M(g +a) D. M (g-a)
9	A body is equilibrium may not have	A. Momentum B. Velocity C. acceleration D. K.E.
10	Which example best illustrates the conservation of electrical energy to chemical energy.	A. Starting a car B. Generating hydroelectric power C. Changing an accumulator D. Melting a fuse
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	Which vector gives the displacement from one point another in space.	A. Null vector B. Position vector C. Unit vector D. Distance vector
13	The wave form of SHM is a	A. Sine wave B. Cosine wave C. Square wave D. Electromagnetic wave
14	If a body a moving with constant acceleration the velocity time graph will be a	A. zig zag B. Straight line C. Constant value

		D. zero value
15	Which vector can be used to locate the centre of mass of a collection of particles.	A. Null vector B. Unit vector C. Position vector D. Distance vector
16	A ball mass 0.25 kg is thrown to a height of 20 m The change in G.P.E is	A. 49 J B. 50 J C. -75 J D. 500 J
17	If there are no frictional effects, the mechanical energy of a system executing simple harmonic motion.	A. Changes with time B. Is variable C. Is constant D. Is not conserved
18	Which are the two basic properties of a vector.	A. Curvature and direction B. Magnitude and direction C. Magnitude and sign D. Curvature and sign
19	A body of mass 2 kg attached to a spring is pulled to a distance of 4 cm What will be the value of spring constant K.	A. 490 N m-1 B. 980 N m-1 C. 1260 N m-1 D. 1960- N m-1
20	An object at the end of a spring oscillates with SHM of angular frequency 2 rad s-1 What is the period of oscillation.	A. 0.32 s B. 0.50 s C. 0.80 s D. 3.1 s