PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	Original source of biomass is.	A. Stars B. Moon C. earth D. Sun
2	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
3	When damping is small amplitude of vibrational resonance will be	A. small B. Large C. Infinite D. Un changed
4	Temperature changes when two balls collide which one of the following is conserved.	A. Angular momentum B. linear momentum C. Velocity D. Kinetic energy
5	If a force of 10 N makes an angle of 30 ^{o} with x-axis its component is given by	A. 1.866 N B. 8.66 N C. 0.89 N D. 0.866 N
6	What must be changing when a body is accelerating uniformly.	A. Force acting on the body B. Mass of the body C. Speed of the body D. Velocity of the body
7	The centre of mass of a system is a point where an applied force causes the system to move.	A. With rotation B. Without rotation C. Fastly D. Slowly
8	For which of the following objects is the centre of mass equidistant from every point on its surface	A. An unsharpened pencil B. A gramophone record C. An egg D. A table tennis ball
9	Angular moment is conserved due to	A. Variable force B. Constant force C. Central force D. Uniform force
10	When a person holding a pall is moving in the forward direction, the work done on the pall is	A. Positive B. Negative C. Zero D. Equal to gravity
11	The angular frequency time period and frequency of a simple pendulum depends only on the.	A. Mass and amplitude B. Mass and gravitational acceleration C. Amplitude and frequency D. Length and gravitational acceleration.
12	The amplitude of a vibrating body placed in a resistive medium.	A. Increases exponentially with time B. Decreases exponentially with time C. Remains constant with time D. Cannot be observed
13	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
14	A body of mass 3 kg lies on the surface of the table 2 m high it is moved on the surface 4 m the change in P.E. will be.	A. 9.8 J B. 6 J C. Zero D. 329 J
15	The angular frequency time period and frequency in SHM not depend upon.	A. Mass B. Force constant C. Amplitude

		D. Restoring force
16	Where should be the centre of gravity of a body.	A. It must be within the body B. It must be outside the body C. It may be near but not essentially within the body D. It changes its position after sometime
17	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
18	If the vector sum of all the torques is zero then	A. 1st condition is satisfied B. 2nd condition is satisfied C. Centre of mass is lowered D. Gravity becomes zero
19	Which of the following statement is correct for a particle moving in a horizontal circle with constant angular velocity.	A. The linear momentum is constant but the K.E. varies B. The K.E. is constant but the linear momentum varies C. Both K.E. and linear momentum are constant D. Both speed and linear velocity are constant.
20	If a force 5 N applied parallel to a moment arm 5 m then torque will be	A. 0 N m B. 5 N m C. 10 N m D. 25 Nm