PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	In an elastic collision	A. K.E. is conserved B. Both K.E. and momentum are conserved C. K.E. is not conserved D. Only momentum is conserved
2	While passing through the atmosphere total energy is reduced due to.	A. scattering B. Absorption C. Reflection D. All of these
3	What is the number of degree of freedom of an oscillating simple gravity pendulum	A. 1 B. 2 C. 3 D. 4
4	If length of second pendulum becomes four times than its time period will become	A. Two times B. Four times C. Six times D. Eight times
5	When speed of a moving body becomes double.	A. Its K.E. is doubled B. Its acceleration is doubled C. Its P.E. is doubled D. Its momentum is double
6	The spin angular momentum and orbital angular momentum are usually differentiated in terms of.	A. Radius of bodies B. Mass of bodies C. Torques of bodies D. Momentum of bodes
7	Kinetic and potential energies are	A. Not inter convertible B. Inter convertible C. Two forms of torque D. Not related with each other
8	When a force of 16 N acts on a mass of 4 kg for a time of 4 s. What is the rate of change of momentum.	A. 1 kg m s-2 B. 4 kg m s-2 C. 8 kg m s-2 D. 16 kg m s-2
9	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
10	The escape velocity	A. Is independent of mas of the body B. Increases with the increases of mass of the body C. Decreases with the decreases of mass of the body D. Depends upon the type of body used
11	The minimum velocity needed to put a satellite into the orbit	A. Terminal velocity B. Escape velocity C. Critical velocity D. Linear velocity
12	If an athlete uses 50 J of energy to lift a load in 2 s his muscular power is.	A. 125 W B. 250 W C. 500 W D. 1,000 W
13	The value of 'g' is maximum	A. Above the earth's surface B. Below the earth's surface C. At the earth's surface D. At the centre of earth
14	A body in equilibrium may not have	A. Velocity B. Momentum C. Acceleration D. K.E

15	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.
16	When a body acceleatres.	A. Its direction always chances B. It mass always changes C. It velocity always changes D. It falls towards the earth
17	The horizontal range is equal for the angles.	A. 30 ^o and 45 ^o B. 30 ^oand 60 ^o C. 45 ^o and 90 ^o D. 60 ^oand 75 ^o
18	The condition of complete equilibrium is satisfied if.	A. Vector sum of all the torques is zero B. Vector sum of all the forces is zero C. Vector sum of all the forces and torques is zero D. Angular acceleration is zero
19	A body of mass 2 kg is suspended in a elevator by means of a spring The balance reads its weight when the elevator moves up with an acceleration of 5 m s-2 as.	A. 9.8 N B. 29. 6 N C. 26.5 N D. 30.5 N
20	If two non zero vectors are perpendicular to each other than their scalar product is equal to	A. 1 B. -1 C. 0 D. infinity