PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	The curve between the acceleration and velocity of a body in SHM is a	A. Circle B. Ellipse C. Square D. Parabola
2	The magnitude of the resultant of two equal forces is equal to either to the force What is the angle between the two forces	A. 0 ^o B. 120 ^o C. 60 ^o D. 180 ^o
3	Which of the following pair does not have identical dimensions.	A. Energy and torque B. Momentum and impulse C. Mass and moment of inertia D. Energy and work
4	Which of the following quantities associated with SHM does not vary periodically.	A. velocity B. Displacement C. Acceleration D. Total energy
5	In any collision between two bodies there need nor the conservation of	A. Linear momentum B. Angular momentum C. Total energy D. Kinetic energy
6	The weight of a man in an elevator moving down with an accelerating of 9.8 m s-2 will be come	A. Half B. Zero C. 9.8 N D. Double
7	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
8	One light year is equal to.	A. 9.46 x 10¹⁵ cm B. 9.46 x 10¹⁵ m C. 9.46 x 10¹⁵ km D. 7.88 x 10¹⁴ m
9	A body is in a static equilibrium, only when it is	A. Moving with uniform velocity B. Moving with variable velocity C. Moving with uniform acceleration D. at rest
10	An example of simple harmonic motion is	A. Fast moving cricket ball B. Motion of bicycle C. Motion of a bee D. Motion of simple pendulum
11	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
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	If a planet of mass double than that of the earth and radius three times greater than the earth a 10 kg mass on its surface will weight.	A. 2.2 N B. 4.4 N C. 6.7 N D. 13.2 N
14	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

15	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
16	when a body accelerates.	A. Its direction always changes B. Its mass always changes C. Its velocity always changes D. It falls towards the earth
17	If two bodes are under a collision that is not perfectly elastic then.	A. K.E. is conserved but momentum is not B. Momentum is conserved but K.E. is not C. Neither K.E. nor momentum is conserved D. Both K.E. and momentum are conserved
18	The moment of linear momentum is equal to	A. Implies B. Torque C. Angular momentum D. Couple
19	Candela is the SI base unit of.	A. illuminance B. Luminous flux C. Luminous intensity D. Radiant energy
20	If a ball was thrown out of a rocket in free space, then it would.	A. Accelerate away from the rocket B. Remain motionless after leaving the rocket C. Travel rectilinearly with constant speed D. Move always parallel to the rocket