PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	The work required to lift a ball of mass 'm' from the surface of the earth to an infinite distance is	A. Absolute P.E. of the body B. P.E of the body C. K.E. of the body D. Chemical energy of the body
2	Which of the following is a properly of a uniform gravitational field.	A. If acts equally in all directions. B. Its field strength is the same at all points with in it C. the gravitational potential has the same value of all points with in it D. It produces zero force on a stationary test mass placed in it.
3	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
4	The circular motion of a particles with constant speed is.	A. Periodic and SHM B. Periodic but not SHM C. SHM and not periodic D. Neither periodic nor SHM
5	If the resultant of all the forces acting on a body is zero then the body is in	A. Translation equilibrium B. Rotational equilibrium C. Equilibrium D. Dynamic equilibrium
6	The relation between horse power and watt is.	A. 1 hp = 546 watts B. 1 hp = 746 watts C. 1 hp = 946 watts D. 1 hp = 1000 watts
7	The moment of linear momentum is equal to	A. Implies B. Torque C. Angular momentum D. Couple
8	When a man jumps off the ground, the reaction force of the ground is.	A. Equal to the weight of the man. B. Smaller than the weight of the man C. Greater than the weight of the man D. Zero
9	Which of the following is not an elastic collision	A. A man jumps on a cart B. A bullet embedded in a block C. Colliding of two glass balls D. Colliding of two tennis balls
10	the consumption of energy by a 60 watt bulb in 2 s is	A. 0.02 J B. 30 J C. 120 J D. 60 J
11	The dimension of momentum is.	A. [MLT-1] B. [ML2T-2] C. [ML3T-2] D. [MLT-1]
12	The escape velocity from the earth's surface is	A. 1.2 km s-1 B. 1.7 km s-1 C. 10.2 km s-1 D. 11.2 km s-1
13	The fundamental quantities which form the base of the SI are.	A. mass, energy and time B. mass, force and time C. mass, length and time D. mass , length and time
14	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
15	Simple harmonic motion may be assumed as a projection of uniform circular motion along a	A. Diagonal B. Hypotenuse C. Radius D. Diameter
16	a 2,000 kg heavy truck travelling at 36 km h-1 strikes a tree and comes to a stope in 0.1 s The average force on the truck during the crash is.	A. 2 x 10² N B. 2 X 10³N C. 2 X 10⁴ N D. 2 X 10³ N
17	Restoring force in the SHM is	A. Centripetal B. Frictional C. Conservative D. Non conservative
18	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
19	The product of two non zero numbers is.	A. A vector quantity B. A unit vector C. Always zero D. Never equal to zero
20	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.