PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	The moment of inertia depends upon	A. Mass of the body and its radius B. Mass of the body and its angular speed C. Mass and angular momentum D. Mass as well as the distribution w.r.t axis of rotation
2	MT-2 is the dimensionless formula of.	A. Moment of iniertia B. Viscosity C. surface tension D. Angular acceleration
3	Which of the following is the magnitude of the gravitational force and is not the inherent property of the body.	A. Mass B. Weight C. Speed D. Length
4	A mass accelerates uniformly when the resulting force acting on it.	A. is zero B. Is constant but not zero C. Increases uniformly w.r.t time D. Is proportional to the displacement of the mass from a fixed point
5	Which of the following quantity has a unit that can be expressed in terms of just two different SI base units.	A. Area B. Change C. Electric current D. Length
6	If mass attached to a spring increases then its time period.	A. Increases B. Decreases C. Remains constant D. Decreases slightly
7	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
8	If gravitational field is not uniform over the extended object or system of point masses the centre of mass and centreof gravity will	A. Be antiparallel B. Not coincide C. Coincide D. Be perpendicular
9	In any collision between two bodies there need nor the conservation of	A. Linear momentum B. Angular momentum C. Total energy D. Kinetic energy
10	The pascal is not the SI derived unit of.	A. Pressure B. Stress C. work D. Tensile strength
11	If the resultant of two forces, each of magnitude F have the magnitude F, angle between the forces will be.	A. 30^o B. 80^o C. 90 ^o D. 120 ^o
12	The centre of gravity of a rectangular or parallel gram shaped plate is.	A. At the centre B. At the intersection of diagonals C. At the intersection of medians D. At the axis of rotation
13	The centre of the sun produces a large amount of energy what is the source of this energy.	A. Chemical reaction B. Nuclear fission C. Nuclear fusion D. Radioactive decay
14	The gravitational strength on the surface of moon is 1.6 N kg-1 What will be the mass and weight of an object respectively on the surface of the moon.	A. 10 kg , 1.6 N B. 10 Kg , 16 N C. 16 Kg, 10 N D. 16 kg, 160 N
		A. Parallel

15	When two vectors have opposite directions we say that they are	B. Antiparallel C. Perpendicular D. Out of phase
16	The cross product of two vectors is magnitude when	A. Vectors are parallel B. Vectors are antiparallel C. Vectors are perpendicular D. They are rotated through 270^o
17	The horizontal distance of a projectile from the point of launch to the point of impacts is called.	A. Height of projectile B. Range of projectile C. Path of projectile D. Angle of projectile
18	Which of the following physical quantity has different units as compared to others.	A. Weight of a body B. Tension of a string C. Buoyant force D. Electromotive force
19	The SI unit of gravitational constant G is.	A. kg m-1 s-1 B. kg m2 s-2 C. kg m3 s-2 D. kg m2 s-1
20	Two vectors of magnitudes 5 N and 7 N respectively are acting on a body if the angle between them is a right angle, their resultant vector will be.	A. 2 N B. 4 N C. 6 N D. 8 N