PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	Candela is the SI base unit of.	A. illuminance B. Luminous flux C. Luminous intensity D. Radiant energy
2	If the dot product of two non zero vectors vanishes the vectors will be.	A. any scalar quantity B. Any negative number C. Its magnitude but not direction D. Its magnitude and direction
3	During the projectile motion, the horizontal component of velocity.	A. Changes with time B. Becomes zero C. Does not change but remains constant D. Increases with time
4	The SI unit of plane angle is	A. Radian B. Degree C. Steradian D. Radian per second
5	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
6	Which vector can be used to locate the centre of mass of a collection of particles.	A. Null vector B. Unit vector C. Position vector D. Distance vector
7	The escape velocity	A. Increases with the increase of the mass of the body B. Depends on the type of body used C. Is independent of mass of the body D. Decreases with the increases of the mass of the body
8	In planetary motion	A. Angular speed remains constant B. Angular momentum remains constant C. Linear speed remains constant D. Linear momentum remains constant
9	If two different masses have same momentum then the lighter one has more.	A. K.E. and velocity B. Velocity only C. Both K.E. and P.E. D. Only P.E
10	In simple harmonic motion we have the conservation of.	A. K.E. B. P.E C. Total energy D. Electrical energy
11	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
12	Restoring force in the SHM is	A. Centripetal B. Frictional C. Conservative D. Non conservative
13	The value of 'g' is affected by earth's	A. Non spherical shape B. Daily motion C. Volume D. Density
14	In any collision between two bodies there need nor the conservation of	A. Linear momentum B. Angular momentum C. Total energy

		D. Kinetic energy
15	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
16	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
17	When a body is lifted through a height 'h' the work done on the body appears in the form of.	A. K.E B. P.E C. Heat D. Density
18	In simple harmonic motion it is found that the total energy of a system.	A. Is independent of the amplitude B. Depends on the amplitude squared C. Is independent of the mass D. All of these
19	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
20	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