

PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	Which of the following is a conservative force.	A. Electric force B. Frictional force C. Normal force D. propulsion force of a rocket
2	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
3	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
4	Which of the following is conserved in SHM	A. K.E. B. P.E C. Total energy D. Electrical energy
5	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°
6	The graph between restoring force and time in SHM is a	A. Straight line B. Parabola C. Sine wave D. Circle
7	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
8	Which of the following is not a unit of plane angle.	A. Degree B. Radian C. Gradian D. Steradian
9	If two non zero vectors are perpendicular to each other then their scalar product is equal to	A. 1 B. -1 C. 0 D. infinity
10	when a bowl of water is taken into the bottom of a well the work done is.	A. Positive B. Negative C. Zero D. Maximum
11	When an arrow is shot from a bow, it has K.E. which is given to it by	A. The elongated tail B. The stretched string of bow C. The throw of archer D. The sharp arrow's head
12	An object travels at constant speed around a circle of radius 1.0 m in 1.0 s the magnitude of its acceleration is.	A. zero B. 1.0 m s^{-2} C. 2 m s^{-2} D. $4 \pi^2 \text{ m s}^{-2}$
13	What is the period of geostationary satellite.	A. 6 hours B. 12 hours C. 18 hours D. 24 hours
14	When net force acting on a system is zero which of the following will be constant.	A. Force B. Linear momentum C. Angular momentum D. Linear impulse
15	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

		<p>C. Travel rectilinearly with constant speed</p> <p>D. Move always parallel to the rocket</p>
16	Which of the following quantities has a unit that can be expressed in terms of just two different SI Units.	<p>A. Area</p> <p>B. Charge</p> <p>C. Force</p> <p>D. Current</p>
17	Which base units would be needed to express the SI unit of potential difference.	<p>A. Kg and A only</p> <p>B. m, s and A</p> <p>C. kg, m, s and A</p> <p>D. mg, m and s</p>
18	If the resultant of all the forces acting on a body is zero then the body is in	<p>A. Translation equilibrium</p> <p>B. Rotational equilibrium</p> <p>C. Equilibrium</p> <p>D. Dynamic equilibrium</p>
19	The escape velocity from the earth's surface is	<p>A. 1.2 km s⁻¹</p> <p>B. 1.7 km s⁻¹</p> <p>C. 10.2 km s⁻¹</p> <p>D. 11.2 km s⁻¹</p>
20	A car is travelling with uniform acceleration the road has check posts every 100 m When the car passes one post, it has a speed of 10 m s ⁻¹ and when passes the next one its speed is 20 ms ⁻¹ What is the cars acceleration.	<p>A. 0.67 m s⁻²</p> <p>B. 1.5 m s²</p> <p>C. 2.5 m s⁻²</p> <p>D. 6.0 m s⁻²</p>