MDCAT Physics Chapter 2 Motion & Force Online Test

Sr	Questions	Answers Choice
1	select Which one of the following is not performing projectile motion	A. A gas filled balloon B.) Bullet fired from gun C. A football kicked D. A baseball shot
2	A boy is travelling from Lahore to Karachi with uniform velocity . Its	A. Speed changes B. Acceleration changes C. Direction of motion changes D. Displacement from origin changes
3	Two projectiles ‘A’ and ‘B’ are thrown with same speed but at angle of 40 degree and 50 degree with the horizontal. The horizontal range of ‘A’ will be:	A. Equal to that of ‘B’ B. Greater than that of ‘B’ C. Less than that of ‘B’ D. 4/5times that of ‘B’
4	At the highest point on the trajectory of a projectile, its	A. Potential energy is minimum B. Kinetic energy is maximum C. Total energy is maximum D. Kinetic energy is minimum
5	The distance covered by a body in time ‘t’ starting from rest is:	A. 1/2 □² B. vt C. □□² D. □□₂
6	A particle executing one dimensional motion, finally comes to rest, what will be the angle between acceleration and displacement during motion:	A. 0 B. π C. □/2 D. □/4
7	If velocity time graph is a straight line parallel to time axis then body is	A. Moving with zero acceleration B. Moving with constant velocity C. Covering equal displacement in equal intervals of time D. All of these
8	In a one-dimensional elastic collision, the relative velocity of approach before collision is equal to:	A. Sum of the velocities of the bodies B. e times the relative velocity of separation after collision C. 1/□ times the relative velocity of separation after collision D. relative velocity of separation after collision
9	Newton’s third law concerns the forces of interaction between two bodies. Which of the following statement relating to the third law is not correct:	A. The two forces must be the same type B. The two forces must act on different bodies C. The two forces are always opposite in direction D. The two forces are equal and opposite so the bodies are in equilibrium
10	Vertical component of velocity of the projectile at any instant ‘t’ from the ground is given by:	A. □□□□□□ B. □□□□□□ − □t C. □□□□□□ − □t D. □□□□□□ + □t
11	. Time rate of change of momentum is equal to	A. Force B. Impulse C. Velocity D. Both A and C
12	As in linear motion force determines linear acceleration where as in circular motion torque determines its	A. Angular acceleration B. Linear acceleration C. Vibratory acceleration D. Tangential acceleration
13	A body of mass m having an initial velocity v, makes head on elastic collision with a stationary body of mass m. After the collision, the body of mass m comes to rest and only the body having mass M moves. This will happen only when:	A. m>>M B. m<<M C.) m=M D. m=1M
		A. 2

14	A ball takes 't' second to fall from a height □□ and '2t' second to fall from a height □□ then h1/h2 is:	B. 4 C. 0.5 D. 0.25
15	In the absence of air resistance, a stone is thrown from P and follows a parabolic path in which the highest point reached is T. The vertical component of acceleration of stone is:	A. Zero at T B. Greatest at T C.) Greatest at P D. the same at P as at T
16	A rigid uniform bar of length 2.4 m is pivoted horizontally at its mid-point, weights are hung from two points of the bar as shown in diagram. To maintain horizontal equilibrium, a couple is applied to the bar: What is the torque and the direction of couple?	A. 40 N m clockwise B. 40 N m anti-clockwise C. 80 N m clockwise D. 80 N m anti-clockwise
17	The time of flight of a projectile is maximum when angle of projection is:	A. 30 Degree B. 45Degree C. 60Degree D. 90Degree
18	A particle executing one dimensional motion, finally comes to rest, what will be the angle between acceleration and displacement during motion:	A. 0 B. π C. □/2 D. □/4
19	The centre of gravity of a triangular plate is at	A. On end of the plate B. The midpoint of any side of the plate C. The midpoint of any side of the plate D. The midpoint of any side of the plate
20	Speedometer of an automobile measures	A. Average velocity B. Instantaneous velocity C. Acceleration D. Instantaneous speed