

Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
Si	Questions	
1	If d is the displacement of the body in time t, then its average velocity will be	A. V _{av} = d x t B. V _{av = t/d} C. V _{av = d/t} D. V _{av = d/t}
2	Two projectiles are fired from the same point with the same speed at angles of projection 60° and 30° respectively. Which one of the following is true?	A. Their range will be same B. Their maximum height will be same C. Their landing velocity will be same D. Their time of flight will be same
3	Which quantity has the same dimension as that of impulse?	A. KE B. Power C. Momentum D. Work
4	In the above figures, tell which set is graphs shows that a body is moving uniform velocity:	A. (i) and (ii) B. (ii) and (iii) C. (i) and (iii) D. (ii) and (iv)
5	In the expression F x t, the force F is	A. total force B. instantaneous force C. average force D. all of them
6	A certain force gives an acceleration of 2 m/sec2 to a body if mass 5 kg. The same force would give a 29 kg object an acceleration of:	A. 0.5 m/sec2 B. 5 m/sec2 C. 1.5 m/sec2 D. 9.8 m/sec2
7	One newton is a force that produces an acceleration of 0.5 m/sec ² in a body of mass:	A. 2 Kg B. 3 Kg C. 4 Kg D. 8 Kg
8	A dirty carpet is to be cleaned by heating. This is an accordance with law of motion:	A. First B. Second C. Third D. None of these
9	Essential characteristic of equilibrium is	A. Momentum equal to zero B. Acceleration equal to zero C. Kinetic energy equal to zero D. Velocity equal to zero
10	The distance covered by a body in unit time is called.	A. Displacement B. speed C. Velocity D. Both B and C
11	A body of mass 1.0 kg is falling with an acceleration of 10 m/s 2 . Its apparent weight will be (g=10 m/s 2)	A. 1.0 kg wt B. 2.0 kg wt C. 0.5 kg wt D. Zero
12	If the acceleration of a body is negative, then slope of the velocity-time graph will be:	A. Zero B. Positive C. Negative D. Infinity
13	Rocket engines lift a rocket from the earth surface, because hot gas with high velocity	A. Push against the air B. React against the rocket and push it up C. Heat up the air which lifts the rocket D. Push against the earth
14	A body is moving with constant velocity of 10 m/sec in the north-east direction. Then its acceleration will be:	A. 10 m/sec ² B. 20 m/sec ² C. 30 m/sec ² D. Zero

15	The discuss used by athlete has a mass of 1 kg, its weight in newton is	A. 9.8 N B. 80 N C. 98 N D. 100 N
16	The direction of velocity is along the direction of	A. distance B. displacement C. acceleration D. all of them
17	At the top of the trajectory of a projectile the acceleration is	A. The maximum B. The minimum C. Zero D. g
18	To get a resultant displacement of 10 m, two displacement vectors of magnitude 6 m and 8 m should be combined	A. Parallel B. Antiparallel C. At angle 60 °
19	Body which falls freely under gravity provides good example of motion under:	A. Uniform acceleration B. Non-uniform acceleration C. Uniform velocity D. None of these
20	The second law gives the relationship between	A. mass and velocity B. force and acceleration C. velocity and acceleration D. mass and weight