

## ECAT Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	A man sitting in a bus travelling in a direction from west to east with a speed of 40 km/h observes that the rain drops are falling vertically down. To the another man standing on ground the rain will appear	A. To fall vertically down B. To fall at an angle going from west to east C. To fall at an angle going from east to west D. The information given is insufficient to decide the direction of rain
2	An object is dropped from a height of 100 m. Its velocity at the moment it touches the ground is:	A. 100 m/sec B. 140 m/sec C. 1960 m/sec D. 196 m/sec
3	Slope of velocity time graph represents:	A. Acceleration B. Speed C. Torque D. Work
4	The quantity $F \times t$ is called as	A. momentum B. velocity C. acceleration D. impulse
5	The magnitude of the force producing an acceleration of $10 \text{ m/sec}^2$ in a body of mass 500 grams is:	A. 3 N B. 4 N C. 5 N D. 6 N
6	The artillery shells travel along parabolic paths under the influence of	A. magnetic field B. electric field C. electromagnetic field D. gravitational field
7	An airplane is flying horizontally with a velocity of 600 km/h and at a height of 1960 m. When it is vertically above a point A on the ground, a bomb is released from it. The bomb strikes the ground, at point B. The distance AB is	A. 1200 m B. 0.33 km C. 3.33 km D. 33 km
8	The direction of the linear momentum is the direction of	A. speed B. velocity C. weight D. none of them
9	A body walks to his school at a distance of 6 km with a speed of 2.5 km/h and walks back with a constant speed of 5 km/h. His average speed for round trip expressed in km/h is	A. 24/13 B. 10/3 C. 3 D. 4,8
10	Linear momentum is a	A. fixed quantity B. constant quantity C. scalar quantity D. vector quantity
11	When brakes are applied to a fast moving car, the passengers will be thrown:	A. Forward B. Backward C. Downward D. None of these
12	A motorist travels A to B at a speed at 40 km/h and returns at speed of 60km/h. His average speed will be	A. 40 km/h B. 48 km/h C. 50 km/h D. 60 km/h
13	Which one of the following is dimensionless:	A. Acceleration B. Velocity C. Density D. Angle
14	When brakes are applied to a fast moving car, the passenger will be thrown:	A. Forward B. Backward C. Downward D. none of these

15	Bodies 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
16	The path described by a projectile is called its	A. orbit B. trajectory C. range D. distance
17	One KWh is equal to:	A. $3.6 \times 10^2$ J B. 3.6 KJ C. $3.6 \times 10^1$ KJ D. 3,6 MJ
18	The distance covered by a body in unit time is called.	A. Displacement B. speed C. Velocity D. Both B and C
19	The SI units of momentum is	A. $\text{kg m s}^{-2}$ B. $\text{kg ms}$ C. $\text{kg m s}^2$ D. N-s
20	Work done along a closed path in a gravitational field is:	A. Maximum B. Minimum C. Zero D. Unity