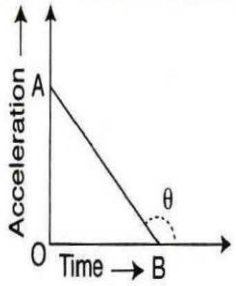
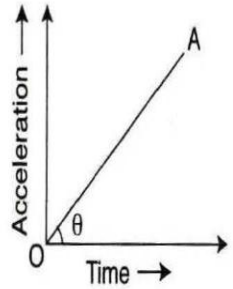
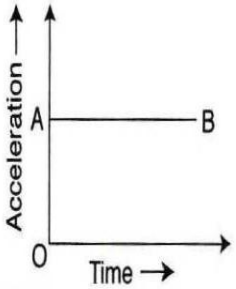
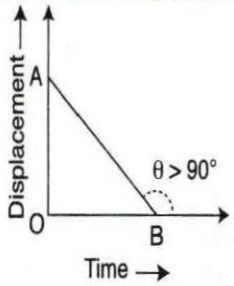
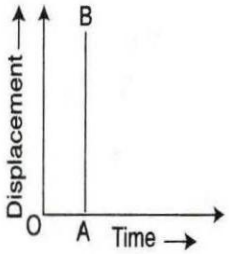
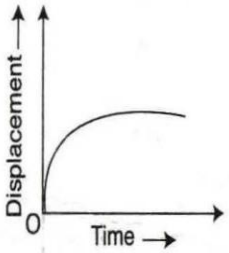
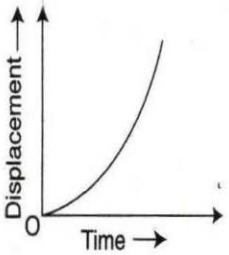
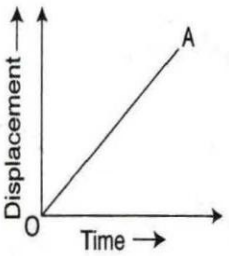
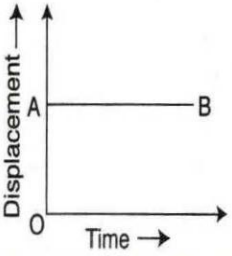
Quantities Having Same Dimensions

No.	Dimension	Quantity
1.	$[M^0L^0T^1]$	$L/R, \sqrt{LC}, RC$ where L = Inductance. R = Resistance, C = Capacitance
2.	$[ML^2T^{-2}]$	$I^2Rt, \frac{V^2}{R}t, VIt, qV, LI^2, \frac{q^2}{C}, CV^2$ where I = Current, t = Time, q = Charge, L = Inductance, C = Capacitance, R = Resistance

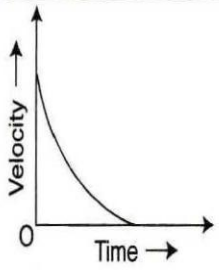
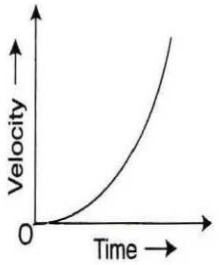
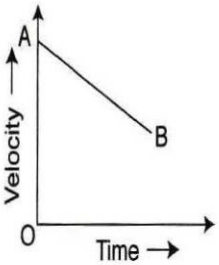
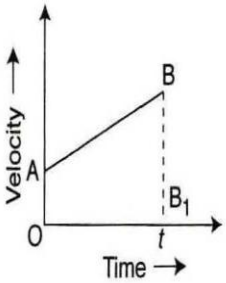
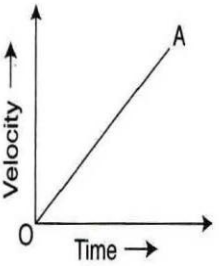
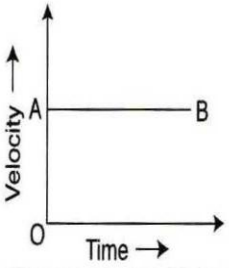
Acceleration-Time Graph

S. No.	Description of Motion	Shape of Graph	The Main Feature of Graph
1.	If a body is moving with constant decreasing acceleration, then acceleration-time graph is a straight line.		The body is moving with negative acceleration and slope of straight line which makes an angle $\theta > 90°$ with time axis.
2.	If a body is moving with constant increasing acceleration, then acceleration graph is a straight line OA.		The body is moving with positive acceleration and slope of straight line OA makes an angle $\theta < 90°$ always with time axis.
3.	If a body is moving with a constant acceleration, then acceleration-time graph is a straight line AB, paralled to time axis.		The area is enclosed by acceleration time graph for the given time which gives the velocity of the body after the given time.

Displacement-Time Graph

S. No.	Description of Motion	Shape of Graph	The Main Feature of Graph
1.	If a body returns back towards the original point of reference while moving with uniform negative velocity, the time-displacement graph is an oblique straight line AB_r making an angle $\theta > 90°$ with the time axis.		The displacement of the body decreases with time with respect to the reference point, till it becomes zero.
2.	If a body is moving with infinite velocity, then time-displacement curve is a straight line AB parallel to displacement axis.		Such motion of a body is never possible.
3.	If a body is moving with a constant retardation, the time displacement graph represents a curve bend downwards.		The slope of time-displacement curve (*i.e.* instantaneous velocity) decreases with time.
4.	If a body is moving with a constant acceleration, then time-displacement graph is a curve with bend upwards.		The slope of time-displacement curve (*i.e.* instantaneous velocity) increases with time.
5.	If a body is moving with a constant velocity, then time-displacement graph will be a straight line OA, inclined to time axis.		Greater is the slope of straight line OA, higher will be the velocity.
6.	For a body which is at rest, time displacement graph will be a straight line AB parallel to time axis.		The slope of straight line AB (representing instantaneous velocity) is zero.

Velocity-Time Graph

S. No.	Description of Motion	Shape of Graph	The Main Feature of Graph
1.	If a body moving with decreasing acceleration, then velocity-time graph is a curve.		The slope of velocity-time graph (*i.e.* instantaneous acceleration) decreases with time.
2.	If a body is moving with increasing acceleration, then velocity-time graph is a curve with bend upwards		The slope of velocity-time graph (*i.e.* instantaneous acceleration) increases with time.
3.	If a body is moving with a constant retardation and its initial velocity is not zero, then velocity-time graph is an oblique straight line AB, not passing through origin.		The slope of this straight line with time axis. makes an angle $\theta > 90°$
4.	If a body is moving with a constant acceleration and its initial velocity is not zero then velocity-time graph is an oblique straight line AB not passing through the origin.		(a) Here OA represent the initial velocity of the body. (b) The area enclosed by the velocity-time graph with time axis represents the distance travelled by the body.
5.	If a body is moving with a constant acceleration and its initial velocity is zero, then velocity-time graph is an oblique straight line passing through the origin.		Greater will be the slope of straight line OA so, greater will be the instantaneous acceleration.
6.	If a body is moving with a constant velocity, the velocity-time graph is a straight line AB paralled to time axis.		The slope of velocity-time graph (*i.e.* instantaneous acceleration) is zero.