**Answer on Question #69072-Physics-Mechanics**

a) plot velocity time graph of motion of the particle

i) when the acceleration of the particle increases with the passage of time.

ii) when the acceleration of the particle decreases with the passage of time.

b) what type of the motion, a particle has if its

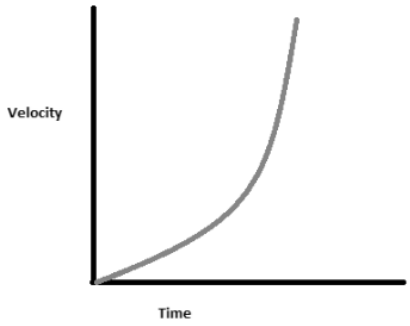
i) velocity time graph is parallel to the time axis?

ii) Velocity time graph is a straight line passing through the origin and having the constant slope?

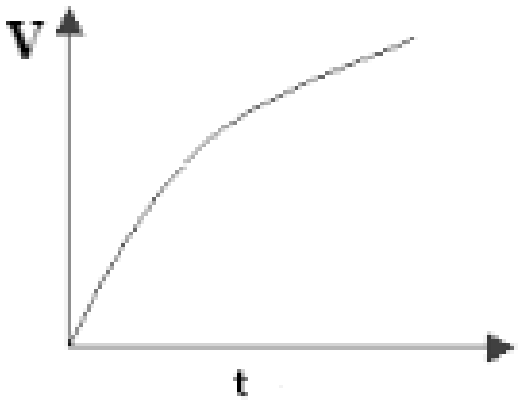
**Solution**

a) Velocity time graph of motion of the particle

i) when the acceleration of the particle increases with the passage of time




ii) when the acceleration of the particle decreases with the passage of time




b) Type of the motion, a particle has if its

i) velocity time graph is parallel to the time axis is motion with constant velocity.

ii) velocity time graph is a straight line passing through the origin and having the constant slope is motion with constant acceleration and zero initial velocity.