S.3 WEEK 4

1. (a) (i) Define the term velocity.
(ii) Sketch a velocity-time graph for a body moving uniform velocity.

(b) A vehicle travelling at a velocity of 90 km h^{-1}, is uniformly brought to rest in 20 s.

(i) Calculate the acceleration of the vehicle.
(ii) If the vehicle had originally been travelling at the velocity of 80 km h^{-1} for 60 s, calculate the total distance travelled before it finally stopped.

(c) An inflated balloon is stationary air. Explain what happens when the air is allowed to escape from the nozzle.