Time while what he stayed in the air (T=1s) can be divided into two same parts ($t_1=t_2=0.5s$): time he spent to reach the highest point of his jump (h) from the ground, and the same time he spent to reach the ground from the highest point.

a) From the law of uniformly accelerated motion (assuming g=10 $m*s^{-2}$):

$$h = \frac{g * t^2}{2} = 1.25\ m$$

b) From the law of energy conservation (in the highest point he had only potential energy, at take-off – only the kinetic one)

$$v_{take-off} = \sqrt{2 * g * h} = 5\ \frac{m}{s}$$

c) Neglecting air resistance force we have, that (l – distance he covered while jumping, T – time he stayed in the air)

$$v_{take-off\ horiz.} = const = \frac{l}{T} = 10\ \frac{ft}{s} \approx 3.05\ \frac{m}{s}$$