**Question 2**

Consider an aircraft modelled after the Cessna Citation X medium business jet aircraft. Its weight is 12000 N, wing area is 50 , aspect ratio is 7.8, Oswald efficiency factor is 0.86, and zero-lift drag coefficient is = 0.027. Calculate the thrust required to fly at a velocity of 720 km/hr at the height of:

(*a*) 4 km

(*b*) 10 km

Assume SLUF.