

Question 2

Consider an aircraft modelled after the Cessna Citation X medium business jet aircraft. Its weight is 12000 N, wing area is 50 m^2 , aspect ratio is 7.8, Oswald efficiency factor is 0.86, and zero-lift drag coefficient is $C_{D0} = 0.027$. 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.