

# Unit 7 - WEEK 06

## Course outline

How does an NPTEL online course work?

Week 01

Week 02

Week 03

Week 04

WEEK 05

WEEK 06

Revision...

Landing Performance

Landing Performance: Continued...

Challenges in Takeoff and Landing: Single and Twin Engines

Introduction to Static Stability

Positioning of Center of Pressure for Static Stability

Feedback For Week 6

Quiz : Assignment 06

Assignment 06 Solution

WEEK 07

WEEK 08

Text Transcripts

VIDEO DOWNLOADS

## Assignment 06

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-03-11, 23:59 IST.**

1) DATA FOR QUESTIONS 1 to 4

2 points

An aircraft weighing 5602.7 kg and area 29.54 sq. m, has landed with flaps fully employed maximum lift coefficient is 2.5. No thrust reversal is used; however, spoilers are employed such that  $L=0$ . The spoilers increase the parasite drag by 10 percent. ( $C_{D_0} = 0.02$ ) without spoiler's deflection.

Calculate the touch down velocity  $V_{TD}$  (assume  $V_{TD} = 1.3 V_{stall}$ ) at sea level.

- 69.15 m/s  
 34.86 m/s  
 45.32 m/s  
 53.19 m/s

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
45.32 m/s

2) Calculate  $C_{D_0}$  during landing

2 points

- 0.020  
 0.022  
 0.030  
 0.032

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
0.022

3) Calculate drag at  $(0.7V_{TD})$

2 points

- 300.60 N  
 400.60 N  
 500.60 N  
 600.60 N

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
400.60 N

4) Calculate the landing ground roll distance ( $\mu_r = 0.4$ )

4 points

- 356.98 m  
 456.98 m  
 156.98 m  
 256.98 m

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
256.98 m