Assignment 07

The due date for submitting this assignment has passed. Due on 2019-10-16, 23:59 IST. As per our records you have not submitted this assignment.

1) For an aircraft having $X_{cg} = 0.28$, $C_m$ vs $C_L$ plot is shown in the figure 1. The static margin for this aircraft is?

![Figure 1](https://onlinecourses.nptel.ac.in/noc19_ae06/unit?unit=42&lesson=44)
2 points

2) For an aircraft having $X_{CG} = 0.20$, $C_m$ vs $C_L$ plot is shown in the figure. The neutral point ($X_{NP}$) is?

![Figure 2](image.png)

- 0.20
- 0.30
- 0.10
- 0.00

No, the answer is incorrect.
Score: 0
Accepted Answers: 0.30

3) Which one is correct at neutral point of UAV?

- $X_{NP} = X_{cg}$
- $\frac{dc_m}{dC_L} = 0$
- $\frac{dc_m}{d\alpha} = 0$
- All of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
4) The pitching moment coefficient with respect to centre of gravity of an UAV is given by 
\[ C_{m_{	ext{tot}}} = 0.05 - 0.0251\alpha \]. The trim angle-of-attack (\(\alpha\)) of UAV will be?

- 2°
- 1°
- 5°
- 0°

No, the answer is incorrect.
Score: 0
Accepted Answers:
2°

5) In an UAV without changing any other dimensions the area of horizontal tail become double. Due to this change the longitudinal stability of UAV will?

- Increases
- Decreases
- Remain same
- Cannot say

No, the answer is incorrect.
Score: 0
Accepted Answers:
Increases