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reviewer4@nptel.iitm.ac.in ▾

**NPTEL** (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » **Introduction to Aerospace Engineering/Flight**  
(course)

Announcements (announcements)    **About the Course** ([https://swayam.gov.in/nd1\\_noc19\\_ae05/preview](https://swayam.gov.in/nd1_noc19_ae05/preview))

Ask a Question (forum)    Progress (student/home)    Mentor (student/mentor)

## Unit 14 - Week 12

Course  
outline

How to access  
the portal?

Preliminaries for  
the Course

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

## Practice Questions: Week12

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

The following questions do not have any weight towards the course evaluation. These questions are for practice.

The following questions **may have more than one correct answers**. Read and analyse the question carefully before selecting the answer (s).

1) The ratio of wing loading for two birds is 1:2. What is the ratio of their weight? **1 point**

- 1:2  
 2:1  
 1:4  
 1:8

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
1:8

2) Which of the following points is/are TRUE about Birds? **1 point**

- Heavier birds glide at higher speeds  
 Larger birds flap their wings slowly  
 Exhibit high change in Camber  
 Reduce wing area as glide velocity reduces

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Heavier birds glide at higher speeds*

**Week 12**

- Lecture 66 :  
Flapping Wing  
Aerodynamics :  
Part I (unit?  
unit=78&lesson=87)
- Lecture 67 :  
Flapping Wing  
Aerodynamics :  
Part II (unit?  
unit=78&lesson=88)
- Weekly  
Feedback (unit?  
unit=78&lesson=126)
- Quiz : Practice  
Questions:  
Week12  
(assessment?  
name=129)**
- Practice  
Questions 12  
Solutions (unit?  
unit=78&lesson=135)

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*Larger birds flap their wings slowly  
Exhibit high change in Camber*

3) A bird weighs about 750 gram and has a wing area of  $0.05 \text{ m}^2$  . Estimate the gliding velocity of **1 point** the bird. Assume  $C_L=0.65$ ,  $\rho =1.2256 \text{ kg/m}^3$  and  $g=10 \text{ m/s}^2$ .

- 37.6 m/s
- 19.4 m/s
- 50.6 m/s
- 14.8 m/s

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*19.4 m/s*

4) Which of the following is/ are not a desirable feature of a bird's wing? **1 point**

- High camber
- Control on wing area
- Transverse bending
- Twisting

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*High camber*