Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

- Lecture 16: Overview of PADD
- Lecture 17: Remotely Controlled Airships
- Lecture 18: Autonomous Airships
- Lecture 19: Indoor Blimp Projects by students
- Lecture 20: Biomimetic Airships
- Quiz : Assignment 3
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Week 4

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# Assignment 3

**The due date for submitting this assignment has passed.**

**Due on 2021-02-10, 23:59 IST.**

**As per our records you have not submitted this assignment.**

1) PADD stands for- *1 point*

- Program on Aerostat Design & Development
- Program on Airship Design & Development
- Program on Aircraft Design & Development
- Program on Airfoil Design and Development

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*Program on Airship Design & Development*

2) How many airships were designed under PADD ? (Write answer in numbers) *1 point*

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*(Type: Numeric) 2*

3) What is/are the promotional usage under PADD? *1 point*

- Passenger transport
- Cargo transport
- Mine seeker
- Tourism

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*Passenger transport*
*Cargo transport*
*Tourism*

4) What was the approximate payload capacity of the Demo airship?
(Answer should be in kg) *1 point*

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*(Type: Numeric) 100*

5) What was the payload capacity of the *PaxCargo* airship?
(Answer should be in kg) *1 point*

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*(Type: Numeric) 1500*

6) What were the operating conditions for which the manned airships of PADD were designed? *1 point*

- ISA at 3500 m altitude
- (ISA+15) at 1500 m altitude
- (ISA+15) at 3500 m altitude
- (ISA+20) at 3500 m altitude

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*(ISA+15) at 3500 m altitude*

7) The methodology for the initial sizing of a non-rigid airship can estimate *1 point*

- Volume
- Fuel required
- Payload capacity
- Gondola specifications

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*Volume*
*Payload capacity*

8) Methodology for the initial sizing of a non-rigid airship is useful for- *1 point*

- Conceptual design studies
- Sensitivity analysis over configurational parameters
- Investigating what-if scenarios
- Carrying out MDO of an airship

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*Conceptual design studies*
*Sensitivity analysis over configurational parameters*
*Investigating what-if scenarios*
*Carrying out MDO of an airship*

9) What was the Volume and Payload of *Micro* airship developed at IITB? *1 point*
(volume in m3 and correct up to one decimal place and payload in kg)

- 6.8 and 1
- 8.6 and 2
- 8.6 and 1
- 6.8 and 0

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*6.8 and 1*

10) What was the Payload and Endurance of the *Mini* airship developed at IITB? (payload in kg and endurance in seconds) *1 point*

- 3 and 18
- 3 and 180
- 3 and 1080
- 3 and 1800

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*3 and 1080*

11) What was the Volume and Payload of *Macro* airship developed at IITB *1 point*
(volume in m3 and correct up to one decimal place and payload in kg)

- 6.8 and 1
- 8.6 and 3
- 16.6 and 5
- 26.6 and 6

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*26.6 and 6*

12) What is the need for an autonomous airship? *1 point*

- There is a shortage of airship pilots
- Ability to hover at a specified location
- Platform for long duration aerial observation
- To test novel control algorithms

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*Ability to hover at a specified location*
*Platform for long duration aerial observation*
*To test novel control algorithms*

13) What is the net lifting capacity of an autonomous airship developed at IITB?
(Answer in kg) *1 point*

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*(Type: Numeric) 2*

14) Why are Nose Battens provided in an airship? *1 point*

- To attach the airship envelope to the mooring mast
- To maintain the shape of the nose at high speed
- To attach the payload on the airship envelope
- To attach the gondola on the airship envelope

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*To attach the airship envelope to the mooring mast*
*To maintain the shape of the nose at high speed*

15) What is meant by a Biomimetic airship *1 point*

- An airship that can fly without any source of energy
- An airship that can maintain its position in Hover
- An airship that can fly without a propeller driven engine
- An airship that looks like a fish or a bird only

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*An airship that can fly without a propeller driven engine*