Lecture 1.5

1.6 Advantages, disadvantages and applications of air refrigeration cycles.

Refrigeration & Air Conditioning

Agenda

- 1.6 Advantages, disadvantages and applications of air refrigeration cycles.
- 1.7 Simple numerical on Reverse Brayton cycle.

1.6 Advantages, disadvantages - Part 1

- Advantages: Air is free, safe, non-toxic.
- Detailed explanation of the concept.
- Relevant theory and practical example.

1.6 Advantages, disadvantages - Part 2

- Highly used in aircraft refrigeration.
- Detailed explanation of the concept.
- Relevant theory and practical example.

1.6 Advantages, disadvantages - Part 3

- Disadvantages: Low COP, high running cost.
- Detailed explanation of the concept.
- Relevant theory and practical example.

1.6 Advantages, disadvantages - Part 4

- Large volume of air handled.
- Detailed explanation of the concept.
- Relevant theory and practical example.

1.6 Advantages, disadvantages - Part 5

- Operating pressure ratio must be high.
- Detailed explanation of the concept.
- Relevant theory and practical example.

1.6 Advantages, disadvantages - Part 6

- Additional detail 6
- Detailed explanation of the concept.
- Relevant theory and practical example.

1.6 Advantages, disadvantages - Part 7

- Additional detail 7
- Detailed explanation of the concept.
- Relevant theory and practical example.

Summary

Key Takeaways

Critical understanding of 1.6 Advantages, disadvantages and applications of air refrigeration cycles. is essential for proper refrigeration and air conditioning system design.