



K S RANGASAMY COLLEGE OF TECHNOLOGY
Tiruchengode – 637215
(An Autonomous Institution, Affiliated to Anna University, Chennai)
DEPARTMENT OF MECHANICAL ENGINEERING



Flipped Class Circular			
Programme & Branch	B.E. & Mechanical Engineering	Year/Sem/Sec	III / VI/ A,B
Course Code & Name	50 ME E38 & Refrigeration and Air Conditioning	Date	17.01.2023

All the students of Mechanical Engineering (III year/VI sem./A-sec) are instructed to go through the below listed online lecture videos. Further, the discussion session is planned for the same on 19.01.2023 (2-hour) to recognize the concepts. Hence, acquire the knowledge/concepts and come up with the answer.

Module: **Thermal Engineering**

Topic: - **Concept of Refrigeration**

Video Link: https://www.youtube.com/watch?v=fcRR95Sy8_U

Video Link: <https://www.youtube.com/watch?v=gVep0zwue1U>

Course Instructor
(Dr.D.Vasudevan)



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Flipped Class questions and answers

Programme & Branch	B.E. & Mechanical Engineering	Year/Sem/Sec	III /VI/A,B
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Questions and Answer:

1) What is the concept of refrigeration?

Refrigeration keeps the cold air close, air conditioning pushes it away.

2) What is refrigerator concept in physics?

A refrigerator works on the principle of the second law of thermodynamics.

This law is related to the extraction of heat from a body i.e. to lower the temperature of the body.

The temperature of the body can be lowered by extracting or removing the heat from the material or the body.

3) What is the SI unit of refrigeration?

KJ/s or KW is the S.I. unit of refrigeration, which is converted to tonnes as commercial unit.

4) What are the basic concepts of refrigeration cycle?

The refrigeration cycle starts and ends with the compressor.

The refrigerant flows into the Compressor where it is compressed and pressurised.

At this point, the refrigerant is a hot gas.

The refrigerant is then pushed to the Condenser which turns the vapour into liquid and absorbs some of the heat.

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Flipped Class Activity Report

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ACTIVITY DURING CLASS

- Based on the video lecture content, the following questions were asked among the students.

Questions:

- 1) What is the concept of refrigeration?
- 2) What is refrigerator concept in physics?
- 3) What is the SI unit of refrigeration?
- 4) What are the basic concepts of refrigeration cycle?

LEARNING OUTCOMES:

- All the students had acquired fundamentals concepts refrigeration with its units.
- More than 80% of the students had given correct answer for the questions posted during the class.
10% of the students understood the concepts and answered only three questions and rest of the students had gone through the contents but they didn't answered.
- Students who had not answered were taught with explanation of refrigeration.
- This approach enhanced the self-learning ability of students.

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