

Thermodynamics

Defⁿ :-

- The law of thermodynamics defines as the fundamental physical quantities like energy, temperature and entropy that characterize thermodynamic systems at thermal equilibrium.

Classifications of Laws of thermodynamics

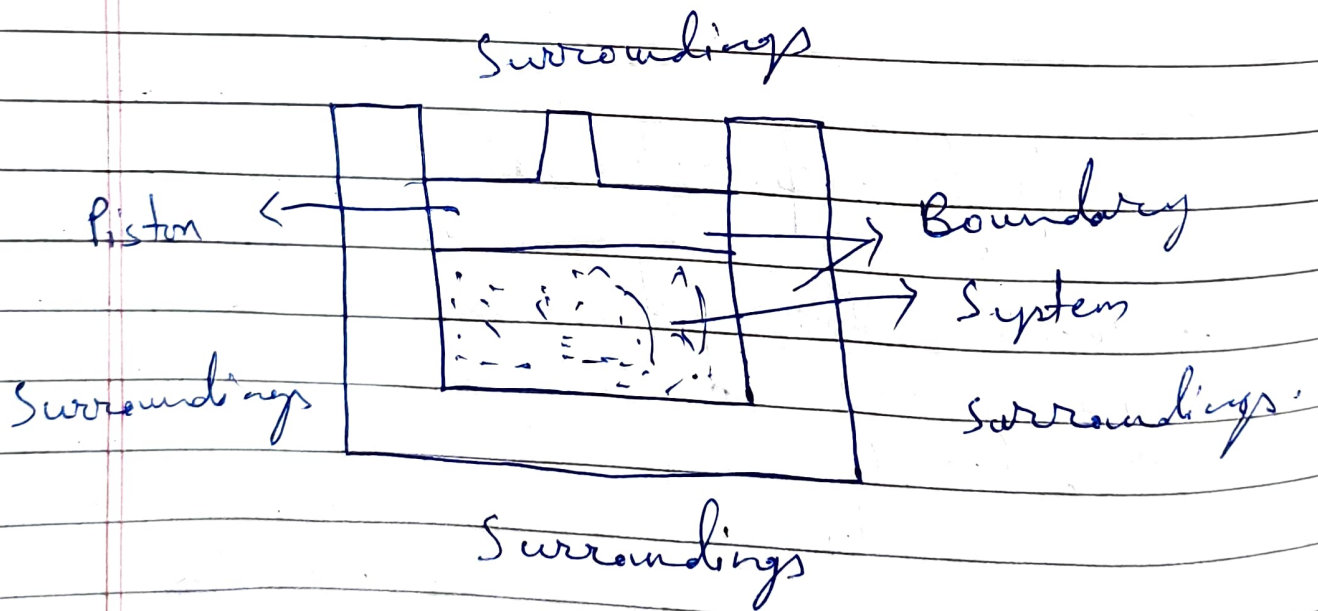
- Zeroth law of thermodynamics
- First law of thermodynamics
- Second law of thermodynamics.
- Third law of thermodynamics.

Thermodynamic system :-

- A definite quantity of matter

(solid, liquid and gases) bounded by some closed surface is known as thermodynamic system.

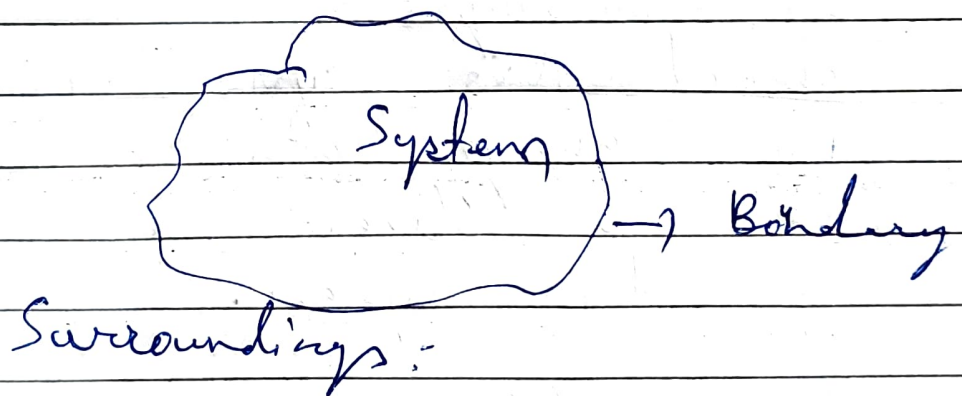
for example a gas contained in a cylinder with a movable piston is a thermodynamic system.



Thermodynamics systems are ¹

1. Open system
2. Closed system.
3. Isolated system
4. Homogeneous system
5. Heterogeneous system.

Terminologies of thermodynamic system:-



1. System:- A system can be isolated from its surroundings with the help of a real or imaginary boundary by which

heat or mechanical energy can pass.

- This may not contain any matter but they can ~~also~~ include radiation energy or electric and magnetic fields.

- Ext Universe is the combination of a system and its surroundings.

2) Surroundings - It is any outside object, this system that interchange the energy with it and which has a direct effect on behaviour of the system.

for example a liquid and its vapour.

3) Boundary - Anything (fixed or moving) which separates the system from its surroundings is

called boundary'

