

~~Thermodynamics~~
B.Sc. I HONS Paper I

Thermodynamics - It deals with mechanical action ~~of~~ produced by heat. It deals with various forms of energy with restriction of one types of energy into another forms of energy. It is based on three law of

thermodynamics. First law deals with conservation of energy, second law deals with feasibility of reaction and ~~spontaneity~~ third law ~~deals with~~ relates other thing to the experimental approach to the absolute zero.

Following terms are generally used in thermodynamics -

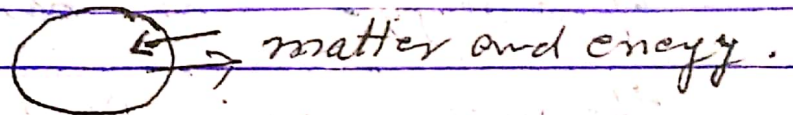
System - The part of Universe which is under ~~study~~ thermodynamical study is called system ~~of the~~

Surrounding - The remaining portion of Universe except ~~surrounding~~ system is called surrounding.

Universe = surrounding + system

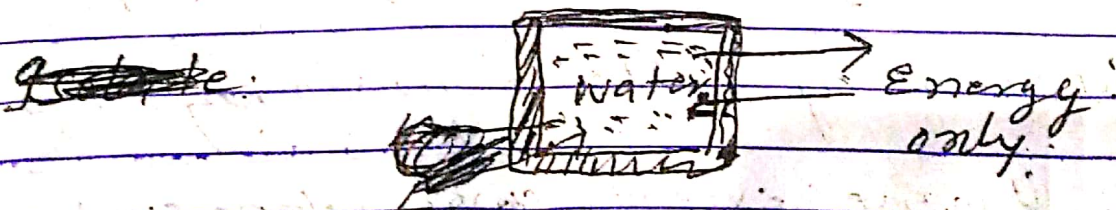
system is of three types: i.e. open, closed and isolated systems.

Open system — When matter and energy changes with surrounding, it is called open system.



Example is water kept in open vessel. Here water vapour and heat changes with surrounding.

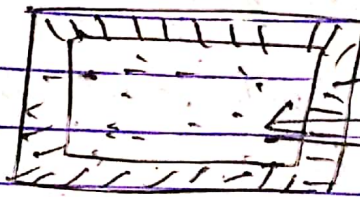
closed system → When only energy exchange with surrounding and not the matter, it is called closed system. Water in a closed vessel is called closed system. As only energy ~~change~~ exchange with surrounding and not the ~~real~~ water molecules.



Isolated system → When system ~~do~~

neither exchange heat ~~or~~ nor matter with surrounding, it is called isolated system.

Water in a insulated vessels is called isolated system. In this neither water nor heat exchange ~~do~~ will surrounding.



Insulated vessels.

→ not allowed
water or heat.