

FIRST LAW OF THERMODYNAMICS

This law is based on conservation of energy.

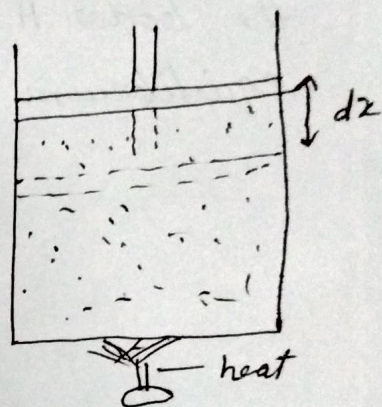
According to this law, the heat energy given to a system is equal to the sum of increase in internal energy and work done by the system.

$$\Delta Q = \Delta U + \Delta W$$

ΔQ = heat supplied to system

ΔU = change in internal energy of system

ΔW = work done by the system



Limitations of First law of Thermodynamic

- (1) It does not indicate the direction of heat transfer.
- (2) It does not tell anything about the conditions under which heat can be converted into work.
- (3) It does not tell that how much work we obtain.