UNIT-I
PART –A

1) What is system and surrounding?

   System- it is a quantity of matter or region in space upon which the attention is concentrated in the analysis of a problem. Surrounding -Everything external to the system is the surrounding.

2) Distinguish between Open and Closed system

   Closed system – system of fixed mass. No mass transfer, only energy transfer
   Open system – System in which the mass crosses the boundary of the system. Both mass and energy transfer occurs.

3) Define an isolated system

   No interaction between the system and the surrounding

4) Define quasi static process?

   When a process proceeds in such a manner that the system remains infinitesimally close to an equilibrium state, at all times is called as quasi static equilibrium.

5) Differentiate Extensive and intensive properties?

   Intensive properties – Independent of the mass of the system eg, temperature
   Extensive properties – Depends on the mass of the system.

6) State Zeroth Law?

   When a body A is in thermal equilibrium with body B and separately with body C, then the bodies B and C will be in thermal equilibrium.

7) State First law of Thermodynamics?

   Energy can neither be created nor be destroyed during the process but it can be transferred from one form to another form.

8) Write the two statements of the Second law of thermodynamics.
   a. Kelvin Plank's statements of Thermodynamics
   b. Clausius statement

9) State Kelvin Plank's statements of Thermodynamics.

   It is impossible for any device that operates on a cycle to receive the heat from the single reservoir and produce a net amount of work.

10) State Clausius statements of Thermodynamics.

It is impossible to construct a device that operated in a cycle and produces no effect other than the transfer of heat from the lower temperature body to a higher temperature body.