

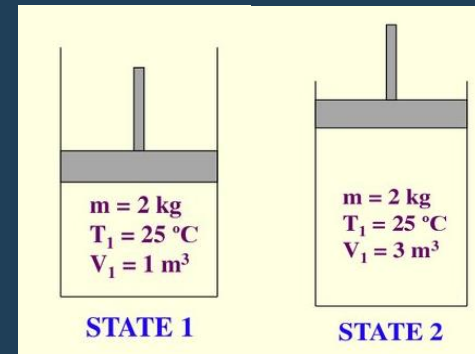
THERMODYNAMICS BASIC CONCEPTS PART-2

Kerala PSC Expert

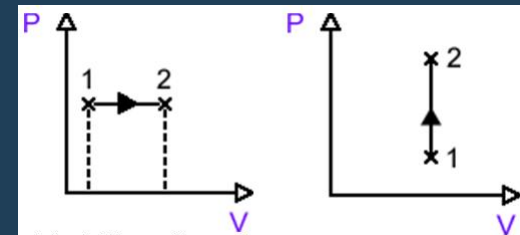
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STATE , PROCESS AND PROPERTY OF SYSTEM

State : The physical condition of system at any instant .



Process : When a system changes from one state to another state, it should undergo a process. The series of state through which system passes is called path of process.



STATE , PROCESS AND PROPERTY OF SYSTEM

Reversible Process: A process is said to be reversible when the system can be brought back to its initial state through the same path itself having no change in the surrounding.

Irreversible Process : Process which is not reversible.

1) An open system is defined as one in which

- A) Is a specified region where transfer energy and mass takes place
- B) Is allowed to cross the boundaries
- C) Cannot transfer either energy or mass to or from the surroundings
- D) Is a specified region where transfer of energy only takes place.

2) A series of operations, which takes place in a certain order and restore the initial conditions at the end, is known as

- A) Process
- B) Reversible Cycle
- C) Irreversible Cycle
- D) Thermodynamic Cycle

3) Consider the following statements about Isolated system?

1. No heat is transferred
2. No work is done
3. No mass flows across the boundary of the system
4. No chemical reaction takes place within the system

Which of the above statements are correct?

- A) 1 and 2
- B) 1 and 3
- ☒ C) 1, 2 and 3
- D) 3 and 4

4) The process occurring in an open system which permit the transfer of mass to and from the system is known as

- ☒ A) Flow Process
- ☐ B) Non Flow Process
- ☐ C) Adiabatic Process
- ☐ D) None of these

5) In a closed system

- A. Energy transfers from system to surroundings
- B. Energy transfers from surroundings to system
- ~~C. Energy transfers from system to surroundings and vice versa~~
- D. Energy as well as mass cross the boundary

THANK YOU