

15. Thermodynamics mainly deals with

- (i) interrelation of various forms of energy and their transformation from one form to another.
- (ii) energy changes in the processes which depend only on initial and final states of the microscopic systems containing a few molecules.
- (iii) how and at what rate these energy transformations are carried out.
- (iv) the system in equilibrium state or moving from one equilibrium state to another equilibrium state.

Solution:

(i) and (iv) are the correct options

Explanation:

(i) Thermodynamics deals with the various forms of energy and interrelates them

(ii) this statement is true only for those energies which are independent of path like change in internal energy, enthalpy change etc., but not true for heat and work

(iii) Thermodynamics has no connection with the rate of the reaction

(iv) Yes, it deals with the system at equilibrium states.