

Chapter 4 Question #4

When a thermodynamic system has undergone a cyclic process,

- 1) the net change in internal energy of the system is always zero.
- 2) the net work done must be zero.
- 3) the system and the surroundings must have returned to their initial state.
- 4) None of the above.
- 5) All of the above

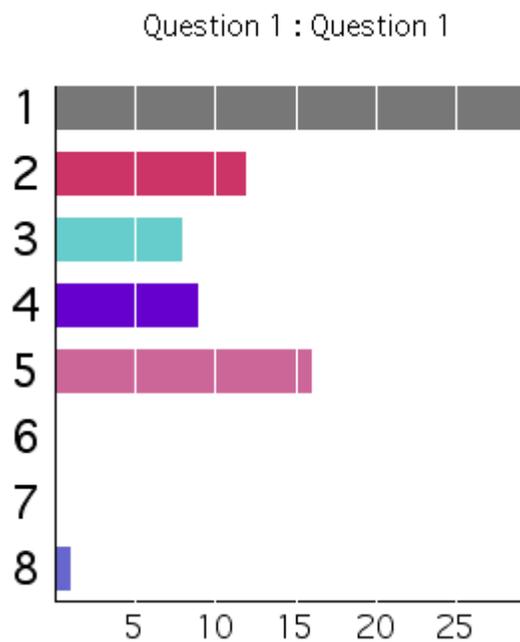
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Chapter 4 Question 4 Answer:

(1) the net change in internal energy of the system is zero

Internal energy is a thermodynamic property and a function of the state of the system. Therefore if the system returns to its initial state (the definition of a cyclic process), then the internal energy is the same as when it started.

Class Response (2003):



Class Response (2002):

Question 4 : Question 4

