

Chapter 4 Question #11

$$dU = \delta Q - pdV$$

This form of the First Law of Thermodynamics is valid for:

- 1) All processes
- 2) Processes where changes in KE and PE are zero
- 3) Quasi-static processes where changes in KE and PE are zero
- 4) Quasi-static processes of an ideal gas where changes in KE and PE are zero
- 5) All quasi-static processes of an ideal gas
- 6) All quasi-static processes
- 7) None of the above

Chapter 4 Question 11 Answer:

(3) quasi-static processes where changes in kinetic and potential energy are zero

Thus (4) is also correct though more limiting

Class Response:

