

12 Which statement about internal energy is correct?

- A** The internal energy of a system can be decreased without transfer of energy by cooling.
- B** When the internal energy of a system is decreased, its temperature always drops.
- C** When two systems have the same internal energy, they must be at the same temperature.
- D** The internal energy of a system is the summation of microscopic kinetic energy due to random motion of the molecules of the system.

13 A chamber containing gas is cooled by a moveable piston of mass 0.75 kg