2. Which of the following statements is correct?

(i) The presence of reacting species in a covered beaker is an example of open system.

(ii) There is an exchange of energy as well as matter between the system and the surroundings in a closed system.

(iii) The presence of reactants in a closed vessel made up of copper is an example of a closed system.

(iv) The presence of reactants in a thermos flask or any other closed insulated vessel is an example of a closed system.

Solution:

(iii) The presence of reactants in a closed vessel made up of copper is an example of closed system

Explanation:

In (iv) energy transfer is not possible as it is insulated, hence not a closed system.

In (i) matter can't exchange, hence not an open system.

(ii) is the definition of open system