

## Quiz 5.1 – Energy

Name: *Key*

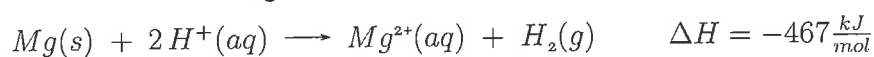
## Question 1 (1 points)

Name 2 types of energy (there are many to choose from)

*Thermal energy**Chemical Potential energy*

## Question 2 (2 points)

Consider the following reaction:



When this reaction is carried out in a beaker of acid, the beaker feels warm to the touch.

- Describe any changes to the chemical potential energy of the system

*The system loses chemical potential energy*

- Describe how heat energy changes, from the perspective of the surroundings

*The surroundings gain thermal energy*

- Is this reaction exothermic or endothermic?

## Question 3 (2 points)

Consider the reaction:  $\text{C}(s) + \text{H}_2\text{O}(g) \longrightarrow \text{CO}(g) + \text{H}_2(g)$ This reaction is *endothermic*

- Describe any changes to the chemical potential energy of the system

*The system gains chemical potential energy*

- Describe how heat energy changes, from the perspective of the surroundings

*The surroundings lose thermal energy*

If I carry this reaction out, will my thermometer record an increase or decrease in the temperature?

*T will decrease*