Grade 11 Unit 2 Quiz

Chemical Thermodynamics and Energy

All values are fictional paper-model data. No chemical handling, calorimetry, device use, or real-world energy recommendation is requested. Total points: 18.

1. Define a system and surroundings in an energy-model description. [3 pts]

2. A card changes from 18.0 to 21.5 arbitrary energy units. Calculate the change. [3 pts]

3. Explain why the sign of an energy change must be tied to a stated system convention. [3 pts]

4. Distinguish a state-function claim from a pathway/rate claim. [3 pts]

5. Identify one assumption or uncertainty limiting a fictional energy comparison. [3 pts]

6. Write a bounded CER about an energy card. Include evidence, reasoning, and a limitation; make no operational recommendation. [3 pts]