

Worksheet: Thermodynamics

Telangana State Board · Class 11 · Chemistry · 5 questions · 15 marks

Name: _____

Date: _____

Score: _____ / 15

Q1. Is bond breaking endothermic or exothermic, and what about bond formation? [2 marks]

Q2. What is the significance of $\Delta G = 0$? [2 marks]

Q3. For $N_2 + 3H_2 \rightarrow 2NH_3$, $\Delta H = -92.4$ kJ at 298 K. Find ΔU given $\Delta n_g = -2$. [3 marks]

Q4. For a reaction $\Delta H = 30$ kJ and $\Delta S = 100$ J/K. Find the temperature above which it becomes spontaneous. [3 marks]

Q5. Calculate $\Delta_f H$ of C_2H_6 given $\Delta_c H(C) = -393.5$, $\Delta_f H(H_2O) = -285.8$, and $\Delta_c H(C_2H_6) = -1560$ kJ/mol. [5 marks]
