

ACCELERATED CHEMISTRY

2nd SEMESTER TEST

FORMULA SHEET

$$\frac{V_1 P_1}{T_1} = \frac{V_2 P_2}{T_2}$$

$$PV = nRT$$

$$R = 0.0821 \text{ L} \cdot \text{atm} \cdot \text{mol}^{-1} \cdot \text{K}^{-1}$$

$$\Delta G = \Delta H - T \Delta S$$

$$q = mc\Delta T$$

$$\Delta H = D_{\text{bonds broken}} - D_{\text{bonds formed}}$$

$$\Delta H_{\text{rxn}}^{\circ} = \sum \Delta H_{\text{f}}^{\circ}(\text{products}) - \sum \Delta H_{\text{f}}^{\circ}(\text{reactants})$$

$$M = \frac{\text{mol of solute}}{\text{L of solution}}$$

$$M_1 V_1 = M_2 V_2$$

$$pH = -\log H^+$$

$$pOH = -\log OH^-$$

$$10^{-pH} = H^+$$

$$10^{-pOH} = OH^-$$

$$pH + pOH = 14$$

$$H^+ OH^- = 1 \times 10^{-14}$$

$$\Delta T_f = i \cdot K_f \cdot m$$

$$\Delta T_b = i \cdot K_b \cdot m$$

