Exam
Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Which rate law is bimolecular? 1) _____

A) rate = k[A][B]
B) rate = k[A]
C) rate = k[A][B]^2
D) rate = k[A][A][B]
E) rate = k[A][B][C][D]

2) Consider a reaction that has a positive $\Delta_r H$ and a positive $\Delta_r S$. Which of the following statements is TRUE? 2) _____

A) This reaction will be spontaneous only at very low temperatures.
B) This reaction will be spontaneous at all temperatures.
C) This reaction will be nonspontaneous at all temperatures.
D) This reaction will be nonspontaneous only at high temperatures.
E) This reaction will be spontaneous only at high temperatures.

3) Which of the following statements is true for the cell diagram below? 3) _____

$$Zn(s) \mid Zn^{2+}(aq) \parallel Cu^{2+}(aq) \mid Cu(s)$$