

CHEMISTRY 1210 S-10

EXAM No. 2A

November 20, 1997

ANSWER KEY

Detailed solutions available at the RESERVE DESK in The library.

1. (a) iv
(b) iv
(c) ii
(d) iv
(e) iv

2. (a) 67
(b) 1.3×10^{10}
(c) 376 atm
(d) (i) decrease; no change in K_p
(ii) no change; no change
(iii) increase; no change in K_p
(iv) decrease; decrease in K_p
(e) 2.5×10^{-11}
(f) 218 atm

3. (a) -285.5 kJ/mol
(b) +4.96 kJ
(c) -884.7 kJ
(d) 0.725 g CH_4
(e) -808 kJ
(f) See your class notes.
(g) -242.98 J/K
(h) See your class notes.

4. (a) 12.0
(b) 11.1
(c) 5.90
(d) 1.85
(e) methyl red
(f) See titration curve of NH_3 with HCl in text or class notes.

5. (a) $6.52 \times 10^{-4} M$
(b) $1.95 \times 10^{-3}\%$ Cu^+ left in solution.