Chemistry 236
Freezing Point Depression Study Problems -- Answers

1. d
2. c
3. a
4. b
5. c
6. e (0.625 M, since H_2SO_4 has two neutralizable H's)
7. d
8. a
9. d
10. b
13. $\alpha = 0.217$ and $\Delta T = -0.451$ K.
14. (a) Expected ΔT (simple treatment) = –1.030 K.
    (b) $\varphi = 0.9599$ (eq 7); $a_A = 0.99047$ (eq 6); $\gamma_A = 1.00035$ (eq 4).
15. molality of HA = 0.245 mol kg^{-1}.