

Homework 2 Key

- 1) Complementary strand is TCGAACGCGTAGC (10 pts)
- 2) $\Delta G = 2(\text{CT/GA}) + 3(\text{GC/CG}) + 2(\text{CA/GT}) + 2(\text{CG/GC}) + \text{CT/GA} + \text{TT/AA} + \text{AT/TA}$
 $= -2.32 - 6.84 - 2.76 - 4.18 - 1.16 - 1.02 - 0.73$
 $= -19.31 \text{ kcal/mol (10pts)}$
- 3) Picture or values from calculation (10 pt)
- 4) Picture or values from calculation (10 pt)
- 5) Proline destabilizes alpha helices (5pt)
- 6) Cyclic nature of the proline amino acid (5 pt)