

Bio 111 Pre-Lab for Lab #08: Name _____

Protein Structure TA & Sect. _____

1) Choose any two amino acids from Figure 5.17 of Campbell, give their names and characterize their side chains by checking the boxes as appropriate.

<u>Amino acid</u>	<u>'phobic/'philic</u>	<u>Bonds it can make*</u>
Name:	<input type="checkbox"/> 'phobic <input type="checkbox"/> 'philic	<input type="checkbox"/> H-bond(s) <input type="checkbox"/> ionic bond(s) <input type="checkbox"/> 'phobic interaction <input type="checkbox"/> van der Waals
Name:	<input type="checkbox"/> 'phobic <input type="checkbox"/> 'philic	<input type="checkbox"/> H-bond(s) <input type="checkbox"/> ionic bond(s) <input type="checkbox"/> 'phobic interaction <input type="checkbox"/> van der Waals

*Assuming that a suitable partner exists.

2) Which interaction(s) are possible between the side chains of the two amino acids you selected?

- H-bond(s)
- ionic bond(s)
- 'phobic interaction
- van der Waals
- none

3) Assume that the two amino acids you have selected are joined to form a di-peptide (see Campbell figure 5.18, which shows a tri-peptide). Draw the structure of the di-peptide made of your two amino acids (in either order) and indicate the peptide bond that connects them. You may not use the amino acids shown in figure 5.18.

4) What type of bond is a *peptide bond*? Circle your answer.

covalent bond ionic bond hydrogen bond van der Waals bond hydrophobic interaction

