Name:

(omit non-canonical amino acids O and U)

1. Draw the chemical structure of a peptide containing 4 amino acids with aliphatic sidechains.
   1. in the N -> C direction
   2. indicate correct stereochemistry at each Ca
   3. Give the one letter codes
2. Draw the chemical structure of a peptide containing two basic amino acids and two acidic amino acids.
   1. In the C->N direction
   2. indicate correct stereochemistry at each Ca
   3. Give the one letter codes

1. Give the one letter codes of the amino acids that commonly act as nucleophiles in enzymatic reactions.
2. Give the one letter codes of the amino acids that can bind metals.
3. Give the one letter codes of all amino acids that are b-branched.
4. Give the one letter codes of the helix breaker amino acids.
5. Fill in the crossword puzzle below.  
   