Using amino acids as basic building blocks construct a 3 amino acid polypeptide chain that contains from 1-3 different amino acid residues with the following properties. Unless otherwise noted assume the polymer is at physiological pH. You may use an amino acid more than once in each question.

A) Draw an isotactic isomer that contains a side group that would form a benzylic radical when exposed to ionizing radiation. Indicate the benzylic carbon.

B) Draw a polymer that would be either overall neutral or negatively charged at slightly acidic or slightly basic pH relative to physiological pH.

C) Draw a polymer that has a side group that is capable of forming hydrogen bonds with the side group of another chain of the same type. Show the hydrogen bonding between the side groups.

D) Draw a polymer where the side group interactions would be based solely on hydrophobic, or van der Waals interactions.

E) Draw a polymer that contains at least one optically active and one non optically active side group.

F) Draw a polymer that would have a high degree of stiffness (justify your choice)

G) Draw a polymer that would be more flexible (justify your choice)

H) Draw a polymer that could form ionic bonds with poly(acrylic acid). Show the ionic bond.