

Bio 111 Answer to iClicker Question 14A

Phenylalanine has the most hydrophobic side chain, so (B) is the correct answer. The most hydrophilic member of the list was aspartic acid (it is charged), next is serine (has an OH), then glycine (smallest 'phobic side chain), then alanine (medium 'phobic side chain).

Bio 111 Answer to iClicker Question 14B

Remember that the question told you to only consider the side chain - that's the part in the box. Although the side chain has a small hydrophobic part (the CH₂ group), it has an oxygen and a nitrogen with lone pairs (H-bond acceptors) and 2 hydrogens attached to a nitrogen (H-bond donors). Therefore, the side chain as a whole is highly hydrophilic and it is capable of making hydrogen bonds. Since the side chain is uncharged (no + or - charges), it is not capable of making ionic bonds. Thus, the only correct answer is (A).