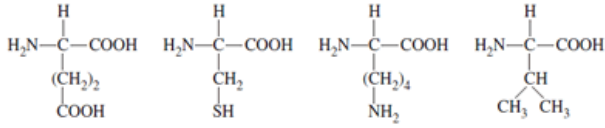


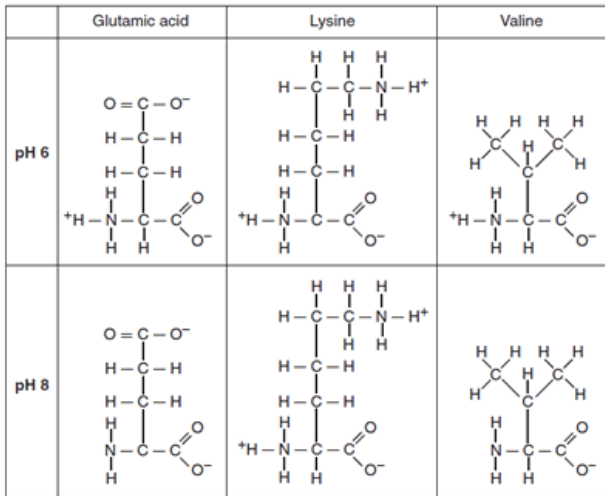
Bio-macro molecules (2010 NSW HSC)

1) Explain in terms of chemical bonding how the secondary and tertiary structures of a protein depend on the amino acids in its primary structure. In your answer, make specific reference to the structures shown.



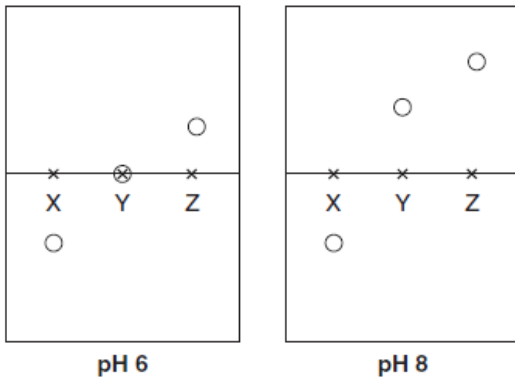
Solution

2) The structures of three amino acids at pH 6 and pH 8 are shown.



Solution will appear here

Samples of each amino acid underwent electrophoresis at pH 6 and pH 8. The results are shown below.



(i) Outline the process of electrophoresis used in identifying amino acids.

Solution

(ii) Identify the amino acids X, Y and Z and justify your answer.

Solution