

<Q>Which of the following amino acids is not chiral?

<S>Y

<C>Proline.

<C+>Glycine.

<C>Alanine.

<C>Lysine.

<Q>Which of the following amino acids is a precursor of Thyroxine?

<S>Y

<C>Tryptophan.

<C>Threonine.

<C+>Tyrosine.

<C>Lysine.

<Q>Which of the following is a tripeptide?

<S>Y

<C>Carnosine.

<C+>Glutathione.

<C>Oxytocin.

<C>Enkephalin.

<Q>What is the net charge on the peptide :Trp-His-Asp-Ala at pH 12?

<S>Y



<C>Zero.

<C>+1

<C>-1

<C+>-2

<Q>How many equivalents of OH- you need to completely titrate one mole of asparagine?

<S>Y

<C>1

<C+>2

<C>3

<C>4

<Q>Which of the following is a cyclic amino acid with secondary nitrogen atom?

<S>Y

<C+>Proline

<C>Phenylalanine

<C>Tyrosine

<C>Tryptophan

<Q>Which amino acid is not a precursor to a neurotransmitter?

<S>Y

<C>Glutamic Acid

<C>Phenylalanine

<C+>Serine

<C>Tryptophan

<Q>Which of the following amino acids has one isomer?

<S>Y

<C>Threonine.

<C+>Glycine.

<C>Alanine.

<C>Lysine.

<Q>Which of the following amino acids is aromatic?

<S>Y

<C>Proline.

<C>Serine.

<C+>Tyrosine.

<C>Arginine.

Q>Which of the following is an example of a sulfur-containing amino acid?

<S>Y

<C>serine

<C+>methionine

<C>tryptophane

<C>aspartic acid

<Q>Which of the following is a cyclic peptide?

<S>Y

<C>Carnosine.

<C>Glutathione.

<C+>Oxytocin.

<C>Enkephalin.

<Q>The isoelectric point of an amino acid is the point at which the molecule:

<S>Y

<C+>Is polar with an overall zero charge

<C>Is polar with an overall negative charge

<C>Is polar with an overall positive charge

<C>Is nonpolar

<Q>Which of the following statements about glutathione is NOT CORRECT?

<S>Y

<C>It contains a gamma-glutamyl residue

<C+>It acts as an oxidizing agent in the cell

<C>The reduced form has a -SH group

<C>The oxidized form contains an S-S bond

<Q>What is the net charge on the peptide :Phe-Glu-Lys-Met at pH 1?

<S>Y

<C>Zero.

<C>+1

<C>-1

<C+>+2

<Q>How many moles of OH- you need to completely titrate one mole of glutamic acid?

<S>Y

<C>1

<C>2

<C+>3

<C>4

<Q>Which of the following is a pentapeptide (5 amino acids)?

<S>Y

<C>Carnosine.

<C>Glutathione.

<C>Oxytocin.

<C+>Enkephalin.

<Q>How many inflection points are there in the titration curve of valine?

<S>Y

<C>1

<C+>2

<C>3

<C>4

<Q>Which of the following amino acids has the largest side chain group?

<S>Y

<C>Valine

<C>Phenylalanine

<C>Tyrosine

<C+>Tryptophan

<Q>Which of the following amino acid pairs are non-polar?

<S>Y

<C>Val and Asp

<C>Tyr and Arg

<C+>Leu and Alanine

<C>Leu and Lys

<Q>A peptide bond is all of these except:

<S>Y

<C+>An ester bond

<C>A special type of amide bond

<C>A very stable type of amide bond

<C>Formed when water is split out from an amino group and a carboxylic acid

<Q>Which of the following is a dipeptide?

<S>Y

<C+>Aspartame.

<C>Glutathione.

<C>Oxytocin.

<C>Enkephalin.

<Q>What is the net charge on the peptide :Phe-His-Asp-Lys at pH 12?

<S>Y

<C>Zero.

<C>+1

<C+>-2

<C>+2

<Q>How many inflection points are there in the titration curve of histidine?

<S>Y

<C>1

<C>2

<C+>3



<C>4

<Q>Which of the following amino acids has a –CONH₂ group in its side chain?

<S>Y

<C+>glutamine

<C>glutamic acid

<C>tyrosine

<C>lysine

<Q>Which of the following amino acid pairs are polar?

<S>Y

<C>Val and Asp

<C+>Arg and Glu

<C>Leu and Met

<C>Ile and Lys

<Q>Which amino acid has a buffering action at physiological pH?

<S>Y

<C>Glutamic Acid

<C+>Histidine

<C>Isoleucine

<C>Serine

<Q>Which of the following amino acids is a precursor of Thyroxine?

<S>Y

<C>Tryptophan.

<C>Threonine.

<C+>Tyrosine.

<C>Lysine.

<Q>Which of the following is a tripeptide?

<S>Y

<C>Carnosine.

<C+>Glutathione.

<C>Oxytocin.

<C>Enkephalin.

<Q>During titration with a strong base histidine can exist in:

<S>Y

<C>One ionic form.

<C>Two ionic forms.

<C>Three ionic forms.

<C+>Four ionic forms.

<Q>Which of the following amino acids is uncommon?

<S>Y

<C>Phenylalanine.

<C>Tyrosine.

<C>Valine.

<C+>Thyroxine.

<Q>What is the net charge on the tripeptide: Gln-Asp-Val at pH 7.0, if the pKa of NH₂ terminal = 10.1 and –COOH terminal = 2.3?

<S>Y

<C>0

<C+>1-

<C>2-

<C>1+

<Q>The peptide bond is planar as a result of:

<S>Y

<C>presence of free N-terminal

<C+>resonance stabilization.

<C>presence of alpha-carbon atom

<C>tertiary structure of the peptide

<Q>Which of the following amino acids does not occur in proteins?

<S>Y

<C>L-Phenylalnine.

<C>L-Tyrosine.

<C>L-Valine.

<C+>L-Ornithine.

<Q>Which of the following statement is CORRECT about the dipeptide carnosine:

<S>Y

<C>It is manufactured as a drug.

<C+>It is composed of beta-Alanine-L-Histidine

<C>It is composed of alpha-Alanine-L_Histidine

<C>It is composed of beta_Alanine-D-Histidine

<Q>Glutathione is an important scavenger of oxidizing agents because it contains

<S>Y

<C>Glycine (Gly)

<C+>Cystiene (Cys)

<C>Glutamate (Glut)

<C>Methionine (Met).

<Q>Amino acids have the zwitterionic structure

<S>Y

<C+>at their pI

<C>at very high pH

<C>when the molecule carries a net negative charge

<C>when the molecule carries a net positive charge

<Q>Which of the following amino acids has hydrophobic (non-polar) side chain?

<S>Y

<C+>Val.

<C>Glu.

<C>Cys.

<C>Ser.

<Q>During titration with a strong base glycine can exist in:

<S>Y

<C>One ionic form.

<C>Two ionic forms.

<C+>Three ionic forms.

<C>Four ionic forms.

<Q>The peptide bond is which of the following?

<S>Y

<C+>an amide bond

<C>an ester bond

<C>an ether bond

<C>an amine bond

<Q>Disulfide bridges can form in proteins _____.

<S>Y

<C>only between cysteine residues side-by-side in the protein sequence

<C+>between cysteine residues that are close in three-dimensional space, but not necessarily

close in the primary structure

<C>between two cystine residues in proteins

<C>between any two methionines or cysteines

<Q>The amino acids in polypeptide chains which contain sulfur (S) are:

<S>Y

<C>serine

<C>methionine only.

<C>cysteine only.

<C+>cysteine and methionine.

<Q>Glycine is not a stereoisomer because

<S>N

<C>it has no chiral carbon.

<C>it does not form enantiomers.

<C>it does not exist in two non-superimposable mirror-image forms.

<C+>All of the above