Unit 5 - Week 3 :

Assignment 3

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-21, 23:59 IST.

1) What is the primary interaction in stabilizing secondary structure of a protein? *1 point*

a. van der Waals forces
b. Hydrogen bonding
c. Covalent bond
d. Hydrophobic bond

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

2) How many amino acid residues are there in per turn of α-helix? *1 point*

a. 3.6
b. 4.6
c. 3.0
d. 2.5

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

3) Which of the following statements is not correct about proteins? *1 point*

a. Proteins function as hormone
b. Proteins function as enzyme-catalyst
c. All proteins get denatured at 70 °C
d. Proteins function as antibody

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

4) Which of the following statements is true about size-exclusion chromatography? *1 point*

a. During the separation of a mixture of proteins, protein with smallest molecular weight is eluted first
b. During the separation of a mixture of proteins, protein with largest molecular weight is eluted first
c. During the separation of a mixture of proteins, protein with largest molecular weight is eluted last
d. During the separation of a mixture of proteins, protein with largest molecular weight is trapped in the pores of adsorbent beads

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

5) Which of the following statements is true about affinity chromatography? *1 point*

a. During the separation of a mixture of proteins, the protein which does not bind to ligand is eluted first
b. During the separation of a mixture of proteins, the protein which does not bind to ligand is eluted last
c. During the separation of a mixture of proteins, the protein which binds to ligand is eluted first
d. Unwanted proteins are eluted by ligand solution

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

6) Which of the following statements is true about ion-exchange chromatography? *1 point*

a. It separates proteins according to their size
b. The column matrix with bound anionic groups is called cationic exchanger
c. The column matrix with bound anionic groups is called anionic exchanger
d. The column matrix with bound cationic groups is called cationic exchanger

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

7) Which of the following statements is true about SDS polyacrylamide chromatography? *1 point*

a. SDS polyacrylamide gel electrophoresis separates proteins on the basis of isoelectric point
b. SDS polyacrylamide gel electrophoresis separates proteins on the basis of charge
c. SDS binds to proteins non-covalently with a stoichiometry of around one SDS molecule per three amino acids
d. SDS binds to proteins non-covalently with a stoichiometry of around one SDS molecule per one amino acid

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

8) Which of the following statements is true about two-dimensional electrophoresis? *1 point*

a. Proteins are separated on the basis of molecular weight
b. Proteins are separated on the basis of pI
c. Proteins are separated on the basis of both molecular weight and pI
d. Isoelectric focusing is also termed as two-dimensional electrophoresis

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

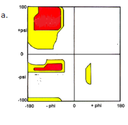
9) In addition to weak interaction, a covalent bond may also play a role in maintaining the tertiary structure of a protein. It is *1 point*

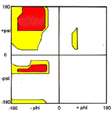
a. Sulfide
b. Disulfide
c. H-bond
d. Peptide

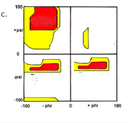
a.
b.
c.
d.

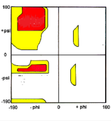
No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

10) Which of the following Ramachandran plots is compatible with the 3D-structure of a polypeptide? *1 point*

a. 

b. 

c. 

d. 

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.