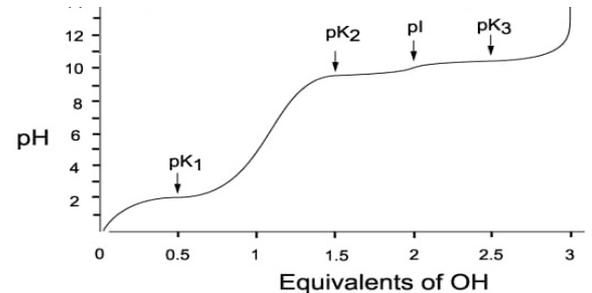


Q1: which of the following is true about collagen:

Hydroxyproline increases the hydrogen bonds

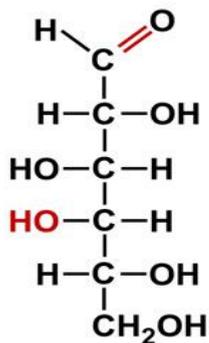
Q2: The following titration curve is related to which amino acid?

- a) Lysine
- b) valine
- c) arginine
- d) alanine

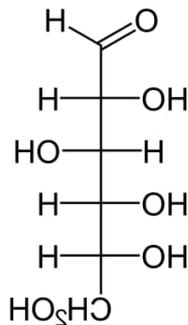


Q3: which one of the Following is L-glucose?

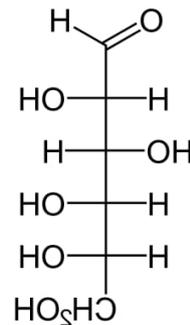
a.



b.



c.



Q4: The blood types differ in their:

- a) sugar content
- b) protein content
- c) lipid content

Q5: Which of the following doesn't produce Cu precipitate in the Benedict's test ?!

- a) lactose
- b) Sucrose
- c) galactose

Q6: The concentration of an acid is 0.1 with a volume of 5 mL the MW is 10 the K_a is $1 \cdot 10^{-3}$ and it was titrated by NaOH that has a concentration of 0.5 M and volume of 12 mL

How much the $[H^+]$ of the solution was?

- a) 0.8
- b) 1.4

c)1.2

Q7: The myelin sheath is composed of:

a. glycolipid

b. phospholipids

c)GAGs

Q8: one of the following is not from the characteristics of the bile acids:

a) It affect the membrane's fluidity

b) derived from cholesterol

c) they are steroids

Q9: Which of the following is true about myoglobin:

p50 stays constant when pressure of oxygen changes in peripheral tissues.

Q10: Which one of the following is not true?

EPA and DHA are omega 6 fatty acids.

Q11: Which one of the following is not true about the tertiary structure ?

we lose it when we add reducing agents

Q12: which of the following structures is not stabilized by covalent bonds in its tertiary structure ?

a) elastin

b) immunoglobulin

c) hemoglobin

d) collagen

Q13: what is the functional amino acid in glutathione?

a) cystine

b) glycine

Q14: One of the following groups of amino acids can be inserted inside the membrane :

met Val Phe

Q15: One of the following is true about the amphipathic alpha helices:

It can react with hydrophobic and charged groups

Q16: The protein can be integrated into the membrane because of:

The interactions between the hydrophobic amino acids and the hydrocarbon chains of the lipids

Q17: In the movie "Malcom X" black people make their hair straight by:

Reducing disulfide bridges

Q18: Albumin has 16 histidine residues and hemoglobin has 38 histidine residues Which of the following statements is true:

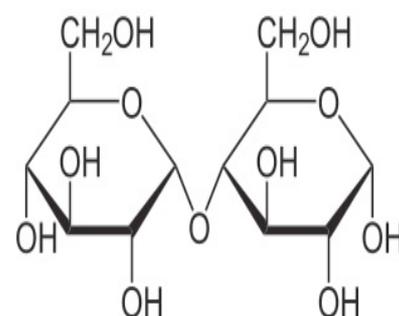
- a) Albumin has greater capacity
- b) hemoglobin has greater capacity**
- c) albumin has greater buffer range
- d) Albumin has greater buffer range
- e) both have the same buffer range and capacity

Q19: which statement is not true about the following structure?:

- a) the glycosidic bond is $\beta(1-6)$**
- b) it could be a part of dextran**

Q20: What is the concentration of H_2PO_4 if we have 0.5 eq in 500ml ?

- a) 0.5 M**
- b).25
- c)1



Q21: One of the following is true about the following structure :

- a) Phosphatide
- b) Sulfatide**
- c) you can find it in the muscle cells
- d) Glyceride

Q22: which of the following is true about the structure of hemoglobin?

- a) hydrophobic amino acids control the entry of materials.
- b) heme group can bind to 2 molecules of oxygen
- c) oxygen bind between proximal histidine and iron

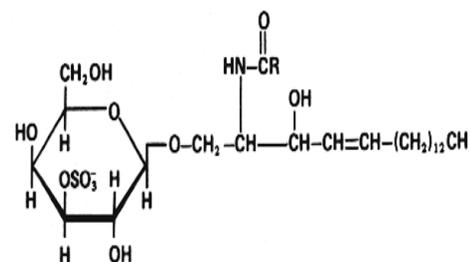
D none of the above

Q23: What is special about glycosaminoglycan ?

has glucosamine or galactosamine and their derivatives.

Q24: the precursor for the Nitric Oxide is ?

- a) Arginine**
- b) histidine
- c) methionine



Q25: What is the most important part in the hypervariable region?

a) Antiparallel beta sheets

b) loops

Q26: If the Ph decreases for a metabolic reason The compensation is:

a) More CO² exhaled

b) Less CO² exhaled

27) the epitope is:

The antigenic structure that is recognized by the antibody

28) True about proteins?

a) Tyrocidine A contains unusual amino acid Ornithine.

b) carnosine is tripeptide and antioxidant

c) oxytocin and vasopressin both ends with methyl group

d) enkephalins are pentapeptides that's function in smooth muscle contraction

e) Gramicidin and tyrocidine are structures connected via disulfide bridges

29: This structure is called ?:

a) AlanylCysteine

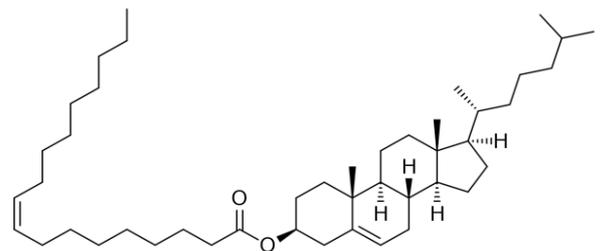
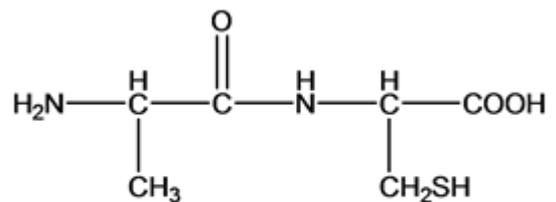
b) cycteinylalanine

30) the Bilayer structure of the membrane is due to?

a) The Hydrophobic interaction between lipids

31) the name of this structure is :

a) Cholesteryl oleate

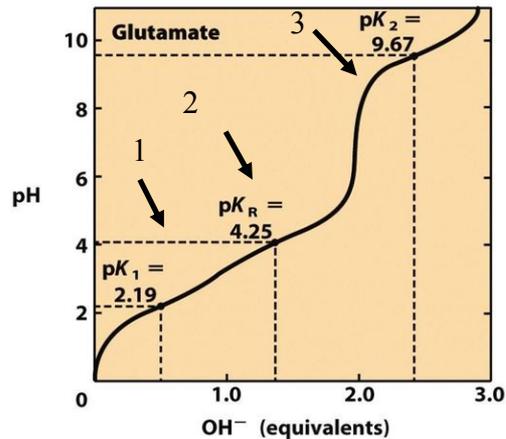


32) True about class switching?

a) Changing the constant regions without changing the variable regions

33) the point that represents the zwitterion is ?

- a)1
- b)2
- c)3
- d)1 &2



34) Defects in chaperons affect?

- a) the folding of proteins

35) We have 0.5 ml of HCl and it's titrated by 0.5 M of NaOH with a volume of 12 ml what is the pH of the acid :

- a)0.8
- b)0.08

36) What is the pH if the concentration of the conjugate base (A⁻) is 0.35M and the concentration of the weak acid (HA) is 0.25M after adding 0.05 M of NaOH ? (pKa = 7)

- a)pH = 7.3

37) We have a drug that has [HA] IONIZABLE ACID with pKa of 4.5 and it enters the cell via the membrane , what is the best pH that enhances the entry of the drug ?

- a)pH=1

38)the thing that cannot be found in the β sheets is ?

- a)charged amino acids
- b)branched amino acids at beta carbon
- c)Glycine

- d)proline

39)Which of the following has the least solubility in water?

- a)palmitate
- b)oleate
- c) linoleate
- d) myristate
- e) arachidonate

Good luck ... 🙏🙏🙏

Done by : لينا عبد الهادي

