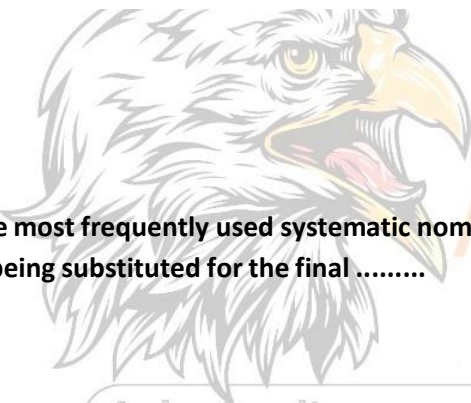


BIO202 - Biochemistry-I GRANDQUIZ MEGA FILE

LION GROUP OF ZOOLOGISTS FOR
2ND

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03180401005



1. the most frequently used systematic nomenclature name the fatty acid after the hydrocarbon with -oic being substituted for the final

- a) e
- b) d
- c) a
- d) b

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2) the amide group of ----- serves as site of attachment for oligosaccharide chain in glycoprotein

- a) serine
- b) threonine
- c) asparagine
- d) all of these

3) the ion found in the haem group is what-----

- a) Mg^{+}
- b) O^{2-}
- c) Fe^{+2}

d) Fe^{+3}

4) hydrogenation of fatty acid leads to the hardening of natural oil and formation of margarine because

a) trans double bond are converted to cis double bonds

b) cis double bond is converted to trans double bonds

c) double bond are converted to single bond

d) single bond is converted to double bond

5) fatty acid are classified on the basis of hydrocarbon chain length include

a) medium chain fatty acid (6 -12c)

b) short chain fatty acid (2-4c)

c) long chain fatty acid (14-18 c)

d) all of the above

6) which of the following form of lipid are also referred as neutral lipid?

a) triacylglycerol

b) phospholipid

c) steroid

d) wax

7) the following salt is water insoluble

a) K

b) Na

c) Mg

d) Zn

8) which statement about amino acid at physiological ph. is true?

a) the carboxyl group is dissociated and amino group is protonated

b) only the carboxyl group is dissociated

c) amino group is protonated

d) there is no charge on either of the amino group or carboxyl group.

9) the sigmoidal binding curve of hemoglobin for oxygen is possible due to structure of hemoglobin.

- a) Multisubunit
- b) Single subunit

10) the formation of furfural product and their condensation with organic phenol to give characteristic colored compound forms the bases of biochemical tests used for the detection of carbohydrate an example of such test is

- a) Molisch 's test
- b) Benedict's test
- c) Ninhydrin test
- d) Grease spot test

11) One degradation product of hemoglobin is the brown bile pigment bilirubin .this step occur in

- a) bile
- b) liver
- c) kidney
- d) heart

12) the quaternary structure of hemoglobin is best described as

- a) dimer of two myoglobin dimers
- b) tetramer of identical subunit
- c) tetramer of four different subunit
- d) tetramer of two different subunit

13) degree of saturation (Y)(%) of oxygen binding sites on all myoglobin or hemoglobin molecule can be any value between.....

- a) 0 and 1
- b) -1 and +1
- c) 0 and 100

d) none of the above

14) immunoglobulin are Protein and have and Components.

a) catalytic, variable, constant

b) protective, variable, constant

c) protective, non-variable, constant

d) Enzymatic, variable, constant

15) the oxygen binding site in hemoglobin and myoglobin?

a) heme group

b) globin group

c) Ca^{+2}

d) Mg^{+2}

16) once a heme group is oxidized, what molecule is produced?

a) Methemoglobin

b) hemoglobin

c) myoglobin

d) hemoglobin c

17) Is an example of contractile protein.

a) myosin

b) amylase

c) hemoglobin

c) Fibrinogen

18) The R group is hydrogen atom in

a) Lysine

b) Alanine

c) Glycine

d) Proline

19) the three-dimensional arrangement of two or more polypeptide chain is called as

- a) primary structure
- b) secondary structure
- c) tertiary structure
- d) quaternary structure

20) what are the main things responsible for causing the Bohr shift?

- a) increase carbon dioxide pressure
- b) increase oxygen requirement
- c) increase H^+ ion
- d) carbon mono oxide high affinity for hemoglobin

21) which type of membrane lipid contain an acidic oligosaccharide ?

- a) globosid
- b) phosphatidylinositol
- c) cerebroside
- d) ganglioside

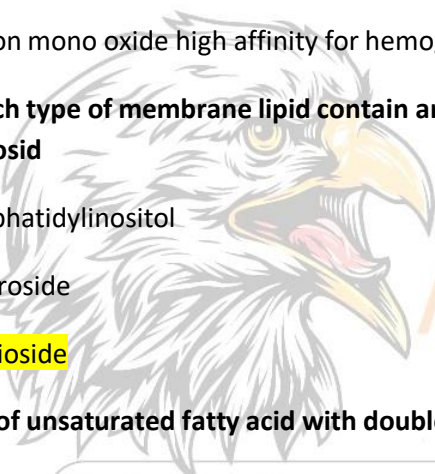
22) the of unsaturated fatty acid with double bond ends in

- a) enoic
- b) anoic
- c) dnoic
- d) none of the above

23) the carbon of the terminal methyl group is called the regardless of the chain length

- a) alpha
- b) beta
- c) gamma
- d) none

24) Hemoglobin, the red pigment in blood, consist of a protein component and the iron complex of derivative



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a) porphyrin

b) iron

c) protein

d) benzene ring

25) oxyhemoglobin dissociation curve Bohr effect decrease affinity of the hemoglobin for..... gas caused by an increase of carbon dioxide ph. etc.

a) oxygen

b) carbon dioxide

c) ozone

d) nitrogen

26) the process by which oxygen enters the blood from the alveoli is

a) facilitated diffusion

b) diffusion

c) active transport

d) none

27) the pK_2 value for glycine is

a) 2.34

b) 5.97

c) 9.60

d) 7.65

28) current evidence suggests that diet rich in omega 3 fatty acid are beneficial particularly for

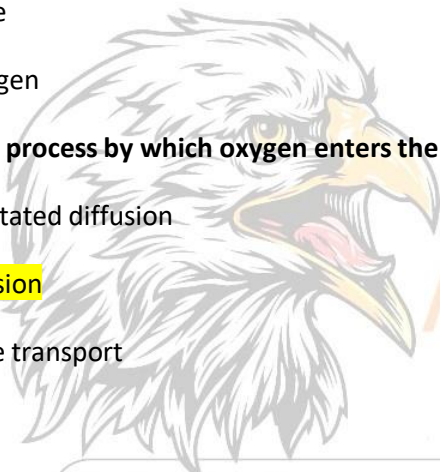
a) cardiovascular disease

b) Alzheimer disease

c) arthritis

d) all of the given

29) during the tense stage of hemoglobin, the binding sites are.....



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a) hindered

b) opened

c) closed

d) replaced

30) fatty acid produces alkyl alcohol by..... of carboxylic group

a) esterification

b) oxidation

c) reduction

d) methylation

31) the following salt is water soluble

a) Ca

b) Mg

c) Zn

d) K

32) the partial pressure of oxygen needed to achieve half saturation of the binding sites is called.....

a) p50

b) p60

c) p70

d) none

33) the number of dissociated hydrogens in histidine is

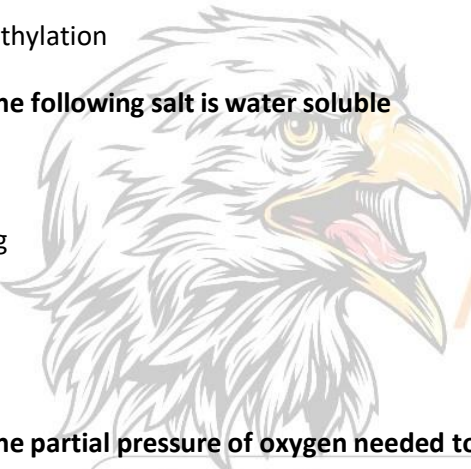
a) zero

b) one

c) two

d) three

34) the example of natural porphyrins includes.....



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- a) cytochrome c
- b) hemoglobin
- c) myoglobin

d) all option are correct

35) which would be a property of all the major types of lipid in this cell membrane

- a) they would be joined to each other through covalent bond
- b) they would be saponifiable in base and hydrolyzed in acid
- c) they would have polar heads and non-polar tails
- d) they would be composed of five carbon unit

36) protein can exist in the form of multi-subunits. An advantage of multi subunit structure is that the different subunit can have different activities and cooperate in a common function. this is best understood by the structure of the enzyme..... which exist as a multi protein complex

- a) hemoglobin
- b) ribozyme
- c) pyruvate dehydrogenase
- d) Ig A

37) what is the name of molecules formed when oxygen bind to hemoglobin

- a) oxyhemoglobin
- b) carbaminohemoglobin
- c) ox globin
- d) oxygen hemoglobin

38) all of the following are involved in stabilizing the three-dimensional structure of protein expect

- a) glycosidic bond
- b) hydrophobic interaction
- c) disulphide bridge
- d) hydrogen bonds

39) which of the following is found in brain tissue?

- a) D-alanine and D -glutamate
- b) free D-serine and D- aspartate
- c) free D-serine and D- alanine
- d) free D-serine and D- glutamate

40) the proximal histidine F8 of myoglobin binds directly to the of the heme group.

- a) iron
- b) magnesium
- c) zinc
- d) calcium

41) the pka value of acetic acid is.....

- a) 3.76
- b) 4.76
- c) 5.76
- d) 7.66

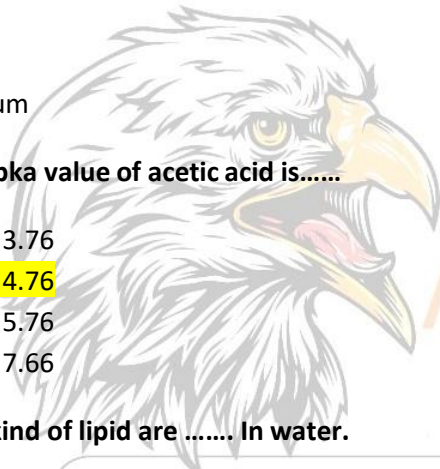
42) all kind of lipid are In water.

- a) miscible
- b) soluble
- c) insoluble
- d) all of the given

43) the..... bond formed by covalently joining of two amino acids through amide linkage.

- a) amide
- b) peptide
- c) sulphide
- d) carboxyl

44) the second degradation product of hemoglobin is green pigment biliverdin, the result of breakdown by oxidation occurs in....



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a) liver

b) heart

c) kidney

d) spleen

45) the ion found in haem group is what.....

a) Mg^{+2}

b) O^{2-}

c) Fe^{+2}

d) Fe^{+3}

46) Alpha helices are the most common secondary structure found in protein, nearly all protein contain alpha helices in their membrane spanning domain

a) trans molecules

b) protective

c) transport

d) globular

47) which of the following statement about erythrocytes is correct

a) they lack nucleus

b) the clot bloods

c) they fight infection

d) they are produced in spleen

48) margarines are vegetable oil treated with partial hydrogenation to form a semi solid.....

a) butter

b) oil

c) fat

d) protein

49) the net effect of affinity of hemoglobin for the last oxygen bound is approximately times greater than its affinity for the first oxygen bound

a) 300

b) 302

c) 301

d) 356

50) some protein contain additional amino acid that arise by modification of amino acid already present in the peptide i.e. after the protein has been synthesized . an example of amino acid is

a) Lysine

b) 5-hydroxylysine

c) Peptidyl proline

d) Glutamic acid

51) all of the following are true for amino acid except

a) the genetic code specified and code for both standard and non-standard amino acid

b) the side chain of amino acid influences their solubility in water

c) the carbon atom present between the amino group and carboxyl group in the amino acid is known as a carbon.

d) in the formation of protein, amino acid are joined together by linkage known as peptide bond.

52) in myoglobin and hemoglobin, heme is covalently linked with.... Amino acid (eight residue of f helix.

a) histidine f8

b) alanine f8

c) both

d) none of them

53) identify the amino acid containing non polar ,aliphatic R groups.

a) phenylalanine, tyrosine and tryptophan

b) glycine, alanine, leucine

c) lysine, arginine, histidine

d) serine, theanine, cysteine

54) the octet rule refers to the tendency of an atom to prefer to have electrons in the valence shell.

a) 8

b) 9

c) 10

d) 11

55) what are the components of triglyceride molecules?

a) one glycerol and three fatty acids

b) one glycerol and two fatty acids

c) one glycerol and one cholesterol

d) one glycerol and two cholesterol

56) unesterified fatty acids are transported in the circulation in association with.....

a) albumin

b) gelatin

c) casein

d) none of the above

57) the change has no effect on the function of myoglobin.

a) conformational

b) amino acid

58) fatty acids occur in the body mainly as in natural fats and oils

a) proteins

b) esters

c) oils

d) fatty acids

59) fats are the of fatty acids and glycerol

- a) esters
- b) ethers
- c) isomer
- d) tautomer

60) during conformational changes each successive addition of oxygen shift the equilibrium further toward the.....state thus, the addition of oxygen in the lungs

- a) relaxed state
- b) tense state
- c) relaxed or tense state
- d) no change

61) the family of poly unsaturated fatty acid with double bond between the third and fourth of carbon from the methyl end of the chain are of special importance in human.....

- a) mental health
- b) nutrition

62) approximately how many hemoglobin are there in each red blood cells?

- a) 30 million
- b) 300 million
- c) 50 million
- d) 5 million

63) hemoglobin must bind with oxygen efficiently in the lungs , where the pO_2 is about.....mmHg and release oxygen in the tissue . where pO_2 is about mmHg

- a) 100 and 35 to 40
- b) 50 and 35 to 40
- c) 60 and 35 to 40
- d) 40 and 35 to 40

64) fetal hemoglobin shifts the oxygen saturation curve in what direction?

- a) right and down

b) left and down

65) what happen to the red blood cells if the heme group is removed from hemoglobin

a) red blood cells would not be able to bind oxygen

b) red blood cells would not be able to reproduce

c) white blood cells would not be able to reproduce

d) blood clots formation would be inhibited

66) in case of soap micelle, the hydrocarbon chains cluster in the inside and carboxyl group lie on the surface

a) non polar. polar

b) polar. non polar

67) which of the following fatty acid would have the lowest critical micelle concentration

a) C4-COOH

b) C5-COOH

c) C6-COOH

d) C8-COOH

68) The melting point of fatty acid depends upon chain length and

a) the shape of fatty acid

b) degree of unsaturation

c) the position of double bond

d) charge on the carbon

69) the process which convert unsaturated fatty acid to saturated fatty acid

a) hydrogenation

b) glycolysis

c) proteolysis

d) liquefaction

70) myoglobin is composed of a single peptide chain which has.....

- a) one O₂ binding site
- b) two O₂ binding site
- c) three O₂ binding site
- d) four O₂ binding site

71) the carbon of the terminal methyl group is called the regardless of the chain length.

- a) alpha
- b) beta
- c) gamma
- d) none

72) which is a characteristic of all the fatty acid components in this lipid?

- a) they all are hydrophobic because they contain oxygen
- b) they all contain unbranched carbon chain
- c) they all contain unconjugated cis double bonds
- d) they are all joined to glycerol through an ester bond

73) once a heme group is oxidized, which molecule is produced

- a) methemoglobin
- b) hemoglobin
- c) myoglobin
- d) hemoglobin c

74) the two ends of the poly peptide chain are known as the..... and terminus

- a) C, N
- b) R, S
- c) a, b
- d) D, L

75) which characteristic does this lipid share with wax

- a) both contain one or more carboxyl group
- b) both contain polar heads
- c) both contain three fatty acid
- d) both contain one or more ester bonds

75) motifs are also known as super secondary structure . an example of motif found in protein is the.....

- a) **b barrel**
- b) b sheet
- c) b turns
- d) a helix

76) the hydrolysis of starch by the enzyme amylase produces maltose. in human body maltose is further hydrolyzed by the enzyme maltase to produce.....

- a) galactose
- b) **glucose**
- c) maltotrisoe
- d) mannose

77) all amino acid except..... have a chiral carbon and have two possible isomers

- a) lysine
- b) **glycine**
- c) glutamic acid
- d)tryptophan

78) protein present in cell membrane may function as..... Or transporters

- a) **receptors**
- b) hormone
- c) immunoglobulins
- d)storage protein

79) aliphatic polar amino acids are in nature

- a) hydrophilic
- b) hydrophobic
- c) non-reactive
- d) aromatic ring tryptophan

80) the name of saturated fatty acid end in one of the following suffixes.

- a) -enoic
- b) -ol
- c) -dehyde
- d) -anoic

81) the strenuous exercise lowers the pO₂ of muscle tissue to about..... mmHg hence permits continued muscular activity

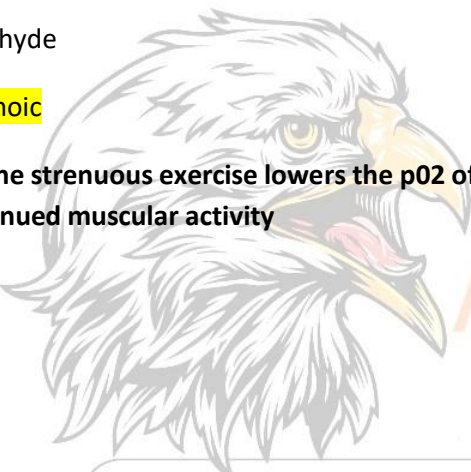
- a) 5
- b) 4
- c) 3
- d) 2

82) the surface of myoglobin is important for interacting with polar aqueous environment of cytosol.

- a) polar
- b) non polar
- c) aqueous
- d) hard

83) cholesterol is essential for normal membrane functions because it

- a) cannot be made by higher organism e.g. mammals
- b) spans the thickness of the bilayer
- c) keeps membrane fluid



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d) catalyzes lipid flip -flop in the bilayer

84) fatty acid are the carboxylic acid in which length of chain range from 4 to 36 carbons.

a) hydrocarbon

b) poly carbon

c) monosaccharide

d) disaccharide

85) the position of any in fatty acid are specified relative to the carboxyl carbon by superscript numbers following delta

a) Carbon atom

b) Hydrogen atom

c) Double bond

d) R group

86) myoglobin can bind to four oxygen molecules because it contain 4 heme group.

a) true

b) false

87) folic acid aids

a) in maturation of red blood cells and destruction of RNA.

b) in maturation of red blood cells and also required for RNA synthesis

c) in maturation of red blood cells and destruction of DNA

d) in maturation of red blood cells and also required for DNA synthesis.

88) the net charge on aniline in acidic solution (ph. less than two is)

a) negative

b) positive

c) neutral

d) first negative and then become neutral

89) the melting properties of fatty acid and lipid bilayer is due primarily to.....

- a) hydrogen bond
- b) Vander Waals forces
- c) electrostatic interactions
- d) covalent bonds

90) micelles of fatty acids in water are organized such that the face the solvent and the Are directed toward the interior.

- a) hydrophobic heads: hydrophobic tails
- b) hydrocarbon chains: carboxylic acid groups
- c) hydrophobic tails: hydrophobic heads
- d) carboxylic acid groups: hydrocarbon chains

91) which of the following molecules is typical fatty acids?

- a) a molecule that has even number of carbon atoms in a branched chain
- b) a polar hydrocarbon with that react with NaOH to form a salt
- c) an amphipathic dicarboxylic acid with unconjugated double bonds
- d) a molecule that has one cis double bond in a linear carbon chain

92) which of the following protect our heart and kidney from injury?

- a) fat
- b) muscles
- c) skin
- d) lubricant

93) upon reaction with strong acid pentose produce while hexoses produce....

- a) furfural, hydroxy methyl furfural
- b) hydroxy methyl furfural, furfural
- c) aldehyde, ketone
- d) deoxy sugars , amino sugars

94) histidine is generally considered to be a amino acid.

a) polar

b) non polar

95) eicosanoids are derived from eitherfatty acid.

a) omega -3

b) omega -6

c) none

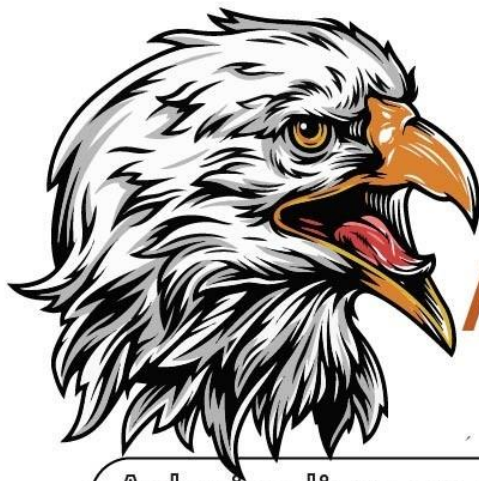
d) omega -3 or omega -6



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96) phospholipid frequen



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tly have nitrogen containing bases and other substituent are

- a) glycerophospholipid the is glycerol
- b) sphingophospholipid the alcohol is sphingosine
- c) none
- d) both

97) many proteins have multiple poly peptide subunit. a multisubunit protein is also referred as a multimer. The repeating structural unit in such a multimer protein is called a

a) **protomer**

b) amino acid

c) monosaccharide

d) motif

98) which of the following is a characteristic of both waxes and terpenes?

a) **both can contain oxygen**

b) both can contain amino acid

c) both can contain a fatty acid

d) both can be non saponifiable

99) in the lung the ph. of the blood is Because carbon dioxide being exhaled.

a) neutral

b) **higher**

c) lower

d) zero

100) a molecule bound reversibly by a protein is called a....

a) **ligand**

b) lysosome

c) sub unit

d) chelator

101) hemoglobin consists of pairs of different protein, designed as alpha and beta chain

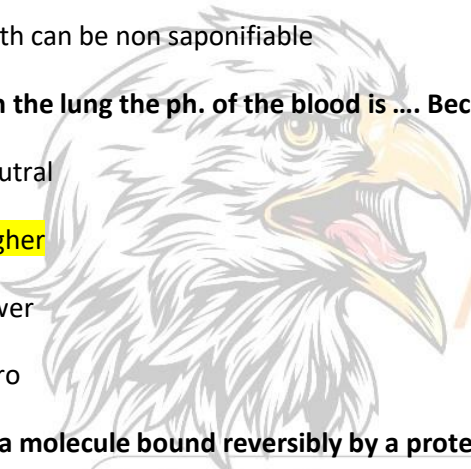
a) **two**

b) three

c) four

d) five

102) which is a characteristic of the lipid in a biological membrane



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- a) the fatty acid of lipid molecules is found in the interior of the membrane
- b) specific glycerophospholipid are distributed equally on the two-membrane surface
- c) lipid molecules are held in fixed position by non covalent bonds with protein
- d) the fluidity of membrane decreases with lower levels of saturated fatty acid

103) which of the following is imino acid

- a) proline
- b) lysine
- c) alanine
- d) histidine

104) immunoglobulin are in nature

- A) protein
- b) carbohydrate
- c) lipid
- d) none

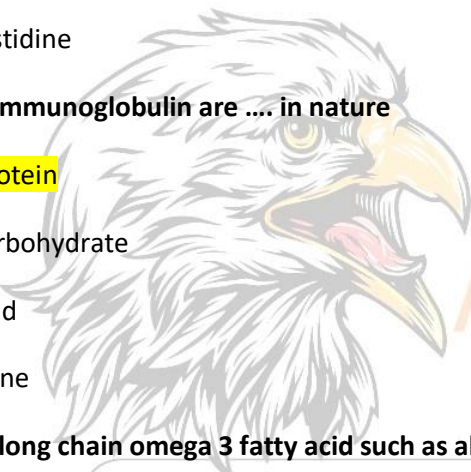
105) long chain omega 3 fatty acid such as alpha -linolenic acid and their derivative have Effect.

- a) inflammatory
- b) inhibitory
- c) antagonistic
- d) anti -inflammatory

106) based on its structural similarity to other lipid, lipid most likely function as

- a) vitamin required for vision
- b) a membrane component
- c) an energy storage molecule
- d) a sex hormone

107) are major structural elements of biological membrane.



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- a) protein
- b) phospholipid
- c) phospholipid and sterols
- d) none

108) lauric acid the saturated fatty acid having carbon chains

- a) 12
- b) 13
- c) 14
- d) 15

109) Structure of protein refers to particularly stable arrangement of amino acid residue giving rise to recurring structural patterns.

- a) primary
- b) secondary
- c) tertiary
- d) quaternary

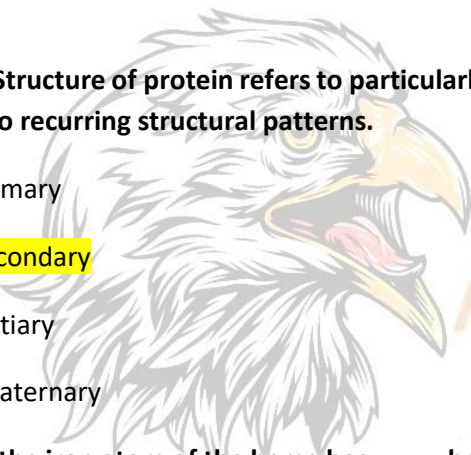
110) the iron atom of the heme has.....bond

- a) six
- b) seven
- c) eight
- d) nine

111) esters of fatty acid with higher molecular weight monohydric alcohol having oh group

- a) protein
- b) wax
- c) steroid
- d) lipid

112) a protein is called a protein if its amino acid composition and molecular conformation are unchanged from that found in natural states



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- a) native
- b) natural
- c) folded
- d) functional

113) a buffer is a solution that resist change in ph. following the addition of an acid or base. Among amino acid , only Has r group pka = 6.0 providing significant buffering near neutral ph. found in the intracellular and extracellular of most animal

- a) histidine
- b) glycine
- c) glucose
- d) aspartic acid

114) the 16-carbon saturated fatty acid named as

- a) propanoic acid
- b) butyric acid
- c) palmitic acid
- d)oleic acid

115) the enzyme that catalyzed the interchange, or shuffling of disulfide bond until the bonds of the native conformation are formed is called

- a) protein disulphide isomerase
- b) sulfide dehydrogenase
- c) protease
- d)protein lyase

116) how many amino acids in the beta chains of hemoglobin

- a) 146
- b)141
- c)140
- d)435

117) sickle cells are very fragile and rupture easily. this results in.....

- a) **anemia**
- b) blood cancer
- c) hemophilia
- d) aplastic anemia

118) That is a fatty acid with one double bond and is abbreviated as 18:1

- a) palmitic acid
- b) glacial acetic acid
- c) tartaric acid
- d) **oleic acid**

119) disulphide bonds are formed between two molecules of the amino acid cysteine. The reaction involve

- a) **oxidation of sulfhydryl group**
- b) reduction of sulfhydryl group
- c) methylation of carbon
- d) phosphorylation of a carbon

120) certain protein that are denatured by heat, extreme ph., or denaturing agent Can regain their native structure and biological activity if returned to a condition in which the native conformation is stable.an example is the enzyme ribonucleases . a which is denatured in asolution in the presence of reducing agent.

- a) **concentrated urea**
- b) buffer
- c) normal saline
- d) serum

121) the native conformation of the protein is dependent on its folding pattern are dictated by

- a) **thermodynamics**
- b) hydraulics

c) conformation of peptide bond

d) function of protein

122) the hydrolysis of starch by an enzyme amylase produces maltose. In human maltose is further hydrolyzed by the enzyme maltase to produce.....

a) galactose

b) glucose

c) malt trioses

d) mannose

123) which type of membrane lipid contain an acidic oligosaccharide

a) globoids

b) phosphatidylinositol

c) cerebroside

d) ganglioside

124) which of the following is not the component of phospholipid?

a) phosphate

b) protein

c) glycerol

d) alcohol

125) how many amino acid are in the alpha chain of hemoglobin

a) 141

b) 146

c) 543

d) 144

126) one degradation product of hemoglobin is the brown bile pigment called as.....

a) bilirubin

b) biliverdin

127) which statement about amino acids at physiological ph. is true

- a) the carboxyl group is dissociated and amino group is protonated
- b) only the carboxyl group is dissociated
- c) only amino group is protonated
- d) there is no change on either the carboxyl group or the amino group

128) the carbon atom in the fatty acid is numbered , beginning with the carboxyl carbon as

- a) c1
- b) c2
- c) c3
- d) c4

129) a molecule bound reversibly by protein is called a....

- a) ligand
- b) lysosome
- c) subunit
- d) chelator

130) oxy hemoglobin dissociation curve Bohr effect decrease affinity of hemoglobin for Gas caused by an increase of carbon dioxide ph. etc.

- a) oxygen
- b) carbon dioxide
- c) ozone
- d) nitrogen

131) protein folding is governed by thermodynamics; the folding process involves a decrease in randomness and thus a decrease in....

- a) entropy
- b) flexibility
- c) stability

d) interactions formed

132) the characteristic pH at which the net electric charge on amino acid is zero is called.....

a) cationic pH.

b) **isoelectric point**

c) ampholytic point

d) anionic point

133) eicosanoids are derived from either Fatty acid.

a) Omega 3

b) omega 6

c) none

d) **omega 3 or omega 6**

134) electrostatic interaction helps stabilize the three dimensional tertiary structure of protein. These interactions are formed as a result of ionic bonds formed between the positively charged amino acids. The positive charge is usually present on Amino acid

a) **basic**

b) acidic

c) neutral

d) all

135) a loss of three dimensional structure sufficient to cause loss of function of protein is called.....

a) **denaturation**

b) catalysis

c) reactivations

d) misfolding

136) beta sheets are a type of regular secondary structure that maximize hydrogen bonding between the peptide backbone. The sheet is described as if the polypeptide strands run in the same direction (as defined by their amino and carboxy terminals)

a) anti parallel

b) parallel

c) aligned

d) helical

137) apart from 20 standard amino acid, some other amino acid may also be synthesized and become a part of the protein an example of such amino acid is..... Which is naturally occurring .generally coded amino acid used by some methanogenic archaea

a) pyrrolysine

b) phenylalanine

c) aspartic acid

d) sialic acid

138) oxygen stored in red muscle myoglobin is released during O₂ deprivation (e.g., severe exercise) to be used in muscle mitochondria for.....

a) aerobic synthesis of ATP molecules

b) An aerobic synthesis of ATP molecules

c) aerobic synthesis of more O₂

d) An aerobic synthesis of more O₂

139) the form of an amino acid that has both positive and negative charge is called

a) zwitterion

b) non -ionic

c) cation

d) anion

140) the surface of myoglobin is polar, important for interacting with..... Aqueous environment of cytosol

a) polar

b) non polar

c) organic

d) inorganic

141) cluster of twisted strands of beta sheet form the core of many..... protein

- a) fibrous
- b) globular
- c) collagenous
- d) structural

142) the 18 carbons with one double bond named as

- a) palmitic acid
- b) propanoic acid
- c) oleic acid
- d) butyric acid

143) fats are abundantly found in

- a) reproductive tissue
- b) vegetable tissue

143) cis -9- hexadecenoic ACID, THAT IS THE FATTY ACID WITH NUTRITIONAL significance is commonly known as..... acid

- a) oleic
- b) palmitic
- c) palmitoleic
- d) none

144) the quaternary structure of human hemoglobin is best described as

- a) dimer of two myoglobin
- b) tetramer of identical subunit
- c) tetramer of four different subunit
- d) tetramer of two different subunit

145) fatty acids are found in the unesterified form as A transport form in the plasma

- a) oils

b) free fatty acid

c) esters

d) bounded fatty acid

146) the gas is used for aerobic synthesis of ATP in muscle mitochondria during the case of severe exercise

a) oxygen

b) carbon dioxide

c) ozone

d) none

147) D-amino acid are also nonstandard amino acid that occur naturally . which of the following D-amino acid is found in the cell wall of gram-positive bacteria?

a) D-alanine

b) 5 hydroxy lysine

c) D-serine

d) cysteine

148) what is the solubility of lipid in water

a) partially soluble

b) soluble

c) insoluble

d) partially insoluble

149) the cervices (pocket) created by..... amino acid in the interior of myoglobin creates a binding pocket for heme

a) Polar

b) non polar

c) Basic

d) acidic

150) all of the following are true for lactose except

- a) it is reducing sugar
- b) it is found abundantly in grape juice
- c) it is dextrorotatory
- d) it is made of galactose and glucose

151) catalytic protein is called as

- a) amino group protein
- b) enzyme
- c) catalysis
- d) carbon R group chain

151) which of the following occur when hydrogen is reacted with vegetable oils?

- a) the hydrogenated vegetable oil will contain fewer trans fats
- b) the hydrogenated vegetable oil will become solid at room temperature
- c) the hydrogenated vegetable oil will become oil
- d) the hydrogenated vegetable oil will become saturated fat.

152) the folding of Contiguous segments of polypeptide form secondary structure of protein

- a) 3-20
- b) 3-30
- c) 3-300
- d) 20

153) the three-dimensional arrangement of two or more polypeptide is called

- a) primary structure
- b) secondary structure
- c) tertiary structure
- d) quaternary structure

154) storage protein has ability to bind and store specific element or compounds..... is an example of storage protein that store copper

- a) hemoglobin
- b) **ferritin**
- c) ceruloplasmin
- d) urease

155) this effect of ph. and carbon dioxide concentration on the binding and release of oxygen by hemoglobin is called the

- a) **Bohr effect**
- b) nelson effect
- c) nucleus effect
- d) electron removal

156) the following sterol is present in cell membrane of fungi

- a) campesterol
- b) **ergosterol**
- c) stigmasterol
- d) sitosterol

157) osazone are obtain by adding a mixture of phenyl hydrazine hydrochloride and sodium acetate to sugar solution and heating in water bath for 45 mint which two atom in the sugar molecule are involved in osazone formation?

- a) **C1,C2**
- b) C1, C6
- c) C1 , C4
- d) C3 ,C5

158) esters of fatty acid containing groups in addition to an alcohol and fatty acid is called as

- a) derived lipid
- b) **complex lipid**
- c) simple lipid
- d) none

159) excess iron has a significant affinity for specific organs particularly

- a) the lungs, liver, and endocrine gland
- b) the heart, liver, and endocrine gland
- c) endocrine gland
- d) liver only

160) out of 20 amino acids contain a secondary amino group is called an imino acid

- a) proline
- b) serine
- c) histidine
- d) methionine

161) current evidence suggests that diet rich in omega 3 fatty acid are beneficial particularly for

- a) cardiovascular disease
- b) Alzheimer disease
- c) arthritis
- d) all

162) margarines are vegetable

- a) Oil
- b) Wax
- c) Carbohydrate
- d) protein

163) the main difference between saturated and unsaturated fatty acid is.....

- a) the number of carbon atom
- b) the presence of keto group
- c) the one is absent from phospholipid
- d) the presence of double

1. Which of the following example of derive lipid steroid
2. Poly unsaturated fatty acids (like alpha-linolenic acid) with a double bond between C-3 and C-4 called Omega 3,4
3. Which of the following is an example of steroid
4. Both glycogen and cellulose are made up of glucose subunits, However, while glycogen is Polysaccharide, cellulose is a polysaccharide.
5. The glycerophospholipids are composed of two fatty acid attached to glycerol and one of the following head groups
Choline phosphate
6. During relaxed stage of haemoglobin the binding sites are
Hindered
7. 18-carbon oleic acid, with one double bond is abbreviated as
18:1
8. Fetal hemoglobin
Right to down
9. In Polyunsaturated fatty acids, the position of the methyl group is KNOWN
Alpha
10. 90% of the amino acid residues in the myoglobin are involved in helices with bend in the structure
11. In secondary structure of protein the hydrogen bonds are formed between the backbone atoms of the polypeptide chain
12. Apart from the 20 standard amino acids, some other amino acids may also be synthesized and become a part of the protein, An example of such an amino acid used by some methanogens is pyrrolysine

Ans: pyrrolysine

13. Esters of fatty acids containing functional groups in addition to an alcohol and a carboxylic acid called as
Ans: complex lipids
14. The hydrolysis of sucrose to glucose and fructose is catalyzed by sucrase which is also present in
Ans: pancreas
15. About 58% of the amino acids are essential
Ans: 58%
16. Transporting lipids in the blood are combination of lipids and
Ans: protein
17. The production of marrow cells takes place within
Ans: bone marrow
18. Hydrogenated fat is used by many food producers to provide following properties
Ans: all
19. Fatty acids occur in
Ans: esters
20. In case of severe hypoxia the oxygen stored in red muscle myoglobin is released
Ans: oxygen
21. With reference to carbohydrate structure, which type of isomers have nearly identical chemical properties but differ in their interaction
Ans: enantiomers
22. Phospholipids frequently have nitrogen containing bases and other substituents are
Ans: sphingophospholipids...the alcohol is sphingosine..
23. The side chain of basic amino acids are proton acceptor
Ans: negatively charged
24. What are the components of a triglyceride molecule?
Ans: one glycerol and three fatty acid
25. What are the functions of dietary fat?
Ans: all of above
26. Which of the following statements about Hb binds is FALSE?

Ans:for all the infor...

27. The family of polyunsaturated fatty acids (PUFAs) with a double bond between the third and fourth carbon from the methyl end of the chain are:

Ans:nutrition

28. The process by which oxygen enters the blood from the alveoli is:

Ans:diffusion

29. Myoglobin is found in:

Ans:kidney

30. The process which:

Ans:proteolysis

31. Anemia can be classified:

Ans:5

32. A plot of dG/dt:

Ans:oxygen diff. Curve

33. Approximately how many hemoglobin molecules are there in each red blood cell?

Ans:300 million

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