

Practice Quiz Questions : Dr. Balliett : No DNA : "I need my 50k daily word quota."

1. How many biologically important amino acids are there?
2. Proteins naturally occur as what?
3. What composition of the amino group?
4. When is an amino acid positively charged?
5. What is an aliphatic amino acid?
6. What is a physiological (neutral) AA known as?
7. How does an AA become neutral?
8. How does an AA become negatively charged?
9. Aliphatic side chain AA's tend to be \_\_\_\_\_ and thus will \_\_\_\_\_ in the membrane.
10. What are the 5 aliphatic AA's?
11. What is a hydroxyl group?
12. What are the Polar Side Hydroxyl side group AA's?
13. What is the Planar molecule hydroxyl AA's?
14. What amino acids have sulfur containing side chains?
15. What is the significance of Cystine?
16. What is the significance of sulfur?
17. What amide is formed from aspartic acid?
18. What amide is formed from glutamic acid?
19. What amino acids are positively charged?
20. The aromatic amino acids are \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
21. The basic amino acids \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
22. What are the essential amino acids?
23. Amino acids are joined by \_\_\_\_\_.
24. Small chains of amino acids are what?
25. Amino acids are joined \_\_\_\_\_ly.
26. How are amino acids read?
27. Secondary structures are bonds via what?
28. \_\_\_\_\_ is a imino acid?
29. What are three secondary structure types?
30. Alpha helixes are \_\_\_\_\_ in nature.
31. What amino acid kinks?
32. On average there are \_\_\_\_\_ amino acid \_\_\_\_\_ per turn.
33. What stabilizes alpha helixes?
34. Where to alpha helixes bond?
35. Describe the configuration of a beta pleated sheet?
36. Beta pleated sheets my be \_\_\_\_\_ or \_\_\_\_\_.
37. How are beta pleated sheets stabilized?
38. The loop regions contains \_\_\_\_\_ or \_\_\_\_\_ residues and why?
39. Approximately \_\_\_\_\_ or all amino acids are in beta pleated sheets or an \_\_\_\_\_.

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40. What connects the changes in direction of beta sheets?
41. What are the discrete functional units of the tertiary structure?
42. What are the possible tertiary bond types?
43. Tertiary structures can have spatial arrangements between secondary and what?
44. What is an assembly of two or more separate peptide chains?
45. What are the three examples of quaternary structures?
46. What is responsible for tissue shear?
47. What three ways are proteins separated by size?
48. What are the two ways proteins are separated by charge?
49. The \_\_\_\_\_ determines purity and molecular weight.
50. What is used to determine the primary sequence of a protein structure?
51. What else can be used to analyze a protein structure?
52. How much protein should the average adult consume?
53. What is the perfect protein and where can it be found?
54. What is corn deficient in?
55. What are legumes deficient in?
56. What disorder has adequate calories but a protein deficiency?
57. What disorder has inadequate calories and proteins?
58. What is ascites?
59. What enzyme allows phenylalanine to become tyrosine?
60. What is it called when the urine looks like coffee?
61. Nutrasweet is also known as \_\_\_\_\_.
62. If phenylalanine hydroxylase is deficient, what skin defect may occur?
63.  $2 \text{ Tyrosine} + 3 \text{ Iodine} = \text{_____}$
64. What is needed to turn Tyrosine to Melanin?
65. What enzyme is made from Tyrosine?
66. What are the intermediates of Tyrosine to Epinephrine?
67. What three things can L-Tryptophan be converted into?
68. To convert to the three, what needs to be present?
69. Where is Tryptophan found?
70. What is another name for serotonin?
71. What is serotonin's main function?
72. Serotonin is implicated in what behaviors?
73. Low levels of serotonin cause \_\_\_\_\_ and \_\_\_\_\_.
74. Excessive levels of serotonin may lead to \_\_\_\_\_.
75. What are heart attacks associated with?
76. To get SAME, what 3 components are needed?
77. What is L-Histidine decarboxylated to and what does the product do?
78. Where are H1 histamine receptors found and what do they effect?
79. A common side effect of Benedryl is what?

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80. Where are the parietal cells found and what do they do?
81. Where does the urea cycle occur?
82. The urea cycle disposes excessive \_\_\_\_\_, and \_\_\_\_\_.
83. What are the states of the urea cycle?
84. What amino acids are important components of collagen?
85. What is the only amino acid that can never undergo glyconeogenesis?
86. What small amino acid is not optically active?
87. What is the most important Excitatory neurotransmitter?
88. To get GABA what do you need and what is GABA?
89. What three things are needed to eventually yield alanine?
90. What is the preferred fuel of intestinal cells?
91. What are the three important amino acids in collagen?
92. What allows sugar and fat to enter cells when bound to a receptor?
93. Where is insulin not needed?
94. Bradykinin is a \_\_\_\_\_ that is released in response to \_\_\_\_\_.
95. Glutathione is important in \_\_\_\_\_.
96. Where are endorphin receptors found?
97. Endorphins are produced via what four actions?
98. Endorphins use the same amino acids as needed in \_\_\_\_\_ formation.
99. What is an enzymes most important function.
100. Enzymes are generally \_\_\_\_\_, only work on \_\_\_\_\_, and are \_\_\_\_\_ in reactions.
101. Enzymes do not \_\_\_\_\_.
102. Enzymes are affected by what three things?
103.  $K_m$  is the \_\_\_\_\_ concentration that results at \_\_\_\_\_.
104. Because the graph is a curve, the \_\_\_\_\_ plot is \_\_\_\_\_ predictive.
105. \_\_\_\_\_ plot is a straight line, but has \_\_\_\_\_.
106. The \_\_\_\_\_ plot has one \_\_\_\_\_ and a \_\_\_\_\_ slope.
107. Competitive inhibitors occur where, resemble what, and bind how?
108. Non-competitive inhibitors occur where, resemble what, and bind how?
109. On a plot, competitive inhibitors do what to the values?
110. On a plot, non-comp inhibitors do what to the values?
111. What are the poison enzymes and what do they do?
112. The hill equation is linked to what?
113. Catabolic enzymes \_\_\_\_\_ reactions thus \_\_\_\_\_ energy.
114. Anabolic enzymes \_\_\_\_\_ reactions thus \_\_\_\_\_ energy.
115. In oxidoreductases, the oxidation \_\_\_\_\_, and the reduction \_\_\_\_\_.
116. Dehydrogenases need \_\_\_\_\_ and \_\_\_\_\_.
117. What removes a carbon dioxide from the molecule?
118. SGPT is a \_\_\_\_\_ for pyruvate and alanine.
119. Kinases add a \_\_\_\_\_ and require \_\_\_\_\_.

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120. What removes a phosphate and has \_\_\_\_\_ association?
121. Lyases require no \_\_\_\_\_, add or remove \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_, and require \_\_\_\_\_.
122. Carboxylases require \_\_\_\_\_ and \_\_\_\_\_.
123. Decarboxylases require \_\_\_\_\_ and \_\_\_\_\_.
124. Ribozymes are not \_\_\_\_\_.