

Archive Subject

Collected by



Wareed Final Biochemistry Archive

1-What of the following will increase the iron absorption from the cereal ?

- a) tea
- b) coffee
- c) orange juice**
- d) water
- e) milk

2-Which is the main component of synovial fluid ?

***Hyaluronic acid

3-Which of the following statement concerning the enzymatic active site is incorrect ?

***consecutive correct responses

4-Pepsin, an enzyme found in the stomach , acts at a PH of about 2 ,but it is not active at a PH of 7 . Why ?

***The optimal PH helps to maintain the enzymes in the tertiary structure .

5-Which of the following statements is not correct about enzymes?

***The enzymes named according to the product formed .

6-Selective qualities of enzymes are recognized as it's ?

- a) Specificity
- b) Thermolabile
- c) site specific
- d) high turnover number
- e) high efficient

7-Which type of regulation occurs in the slowest time frame ?

***New synthesis of enzymes through gene induction.

8-An allosteric activator that affects K_m ,but not V_{max} does so by?

***Allosteric enzyme conformation to promote substrate binding.

9-If the absolute concentration of the enzyme is unknown ,which of the following values can't be determined experimentally ?

- a) V_{max} and K_m .
- b) V_{max} and V_i
- c) V_i

d) V-max

10-The term that describes the theoretical value achieved when all enzyme substrate binding sites occupied by the substrate is ?

a) V-max

b) Km

c) K1

d) K2

e) Vi

11-Which of the following is true about the enzymes that are allosterically regulated ?

a) They are usually multimeric enzymes .

b) we can apply "Michaelis-Menten equation" on it effectively

c) allosteric inhibitors are structural analogue of the substrate

d) they usually have allosteric site

e) the allosteric modulators are usually the substrate of the enzyme

12-When the rate of enzymatic reaction is controlled by the amount of enzyme present , which of the following factors control the enzymatic level?

a)Rate of transcription and protein synthesis .

b)Rate of translation .

c) Rate of reverse-transcription and protein synthesis.

13-The affinity of an enzyme for a substance ,when the enzyme has $K_m = 0.5$, will be for the affinity of another enzyme for its substance ,when it has $K_m = 0.05$?

- a) Greater
- b) same
- c) Lesser

14-What is the difference between glucose and fructose ?

- a) Isomerase difference in their atom connectivity .
- b) the molecular formula
- c) the number of carbon atoms

15-What is the type of isomers if the whole chiral center changed ?

- a) Anomers
- b) Epimers
- c) Enantiomers
- d) Conformers

16-which of these organs the glucose is the main form for energy ?

- a) Liver

- b) Brain
- c) Kidney
- d) lung

17-What is the chemical substance that is used as blood anticoagulant ?

- a) Calcium
- b) potassium
- c) sodium

18-What is the molisch reagent ?

- a) Alpha naphthol
- b) 5-hydroxy methyl
- c) sulphuric acid

19-The structure that protects the protein during folding is ?

- a) Chaperons
- b) prolin

20-One of these choices is correctly matched ?

- a) tryptophan—----- niacin
- b) pyrimidine—-----cobalamin

21-The sickle cell anemia affects the ?

- a) beta chain
- b) alpha chain

22- What is the amino acid that gives a yellowish color with the nin-hydrin ?

- a) prolin
- b) arginin
- c) lysin

23-The amino acid that is responsible for growth and development is ?

- a) tryptophan
- b) Arginin
- c) leucin

24- One of these amino acids is non-standard ?

- a) Selenocysteine
- b) Glycin

25-What is the vitamin that can be made from tryptophan ?

- a) vitamin B6
- b) vitamin A
- c) vitamin B3

26- if the N=3 of H_2CO_4 , the mortality is ?

- a) 2
- b) 1.5
- c) 0.5
- d) 6

27- Methotrexate ,Warfarin and 5-fluorescent ,are inhibitors of which vitamin?

- a) VITAMIN K
- b) VITAMIN A
- c) VITAMIN C
- d) VITAMIN B6

28-One of the following isn't a motif ?

- a) alpha sheets
- b) alpha-loop-alpha
- c) beta-alpha-beta

29-Which of the following is incorrect?

- a) Enzymes always undergoes conformational change when binding to substrate
- b) Enzymes change the outcome of the reaction that they catalyze

30-Which of the following describes the binding of the enzyme with the substrate ?

- a) V_{max}
- b) K_m
- c) K_1+K_2/K_m
- d) $K_1/K_2/K_m$
- e) $K^{-1}/K^{-2}/K_m$

31-The inhibitor that can either bind to enzyme or enzyme-substrate complex?

- a) competitive inhibitor

b) non-competitive inhibitor

c) allosteric inhibitor

32-The rate of reaction affected by the amount of the enzyme is reduced by?

a) increase in substrate concentration

b) increase in enzyme concentration

c) increase temperature to optimum

d) increase product concentration

33-What is the name of the (-OH) group?

a) Hydroxyl group

b) Amines

c) Aldehydes

d) Ketones

34-Regarding Uncompetitive inhibitor, which of the following sentences is true ?

a) Increase the amount of the ES and decrease the rate of the reaction

b) Decrease the amount of the ES and decrease the rate of the reaction

c) Increase the amount of the ES and Increase the rate of the reaction

d) Decrease the amount of the ES and increase the rate of the reaction

e) No change in the amount of the ES and decrease the rate of the reaction

35-P+E :

***SE is negligible

36-What is the sugar that gives (negative result in Benedict test and positive results in Seliwanoff test)?

- a) Glucose
- b) Fructose
- c) sucrose
- d) Maltose

37- What is the vitamin that has glutamate in its structure?

- a) Folate
- b) Niacin
- c) Thiamin

38-Which one is an essential amino acid during pregnancy?

- a) Arginin
- b) leucine
- c) Isoleucine
- d) Tryptophan

39- What is blood sugar ?

- a) Dextrose
- b) Cellulose

40-Which of the following is non-polar amino acids ?

a) Glycin

41-(-NH) group, is called ?

a) Amino group

b) alcohol group

c) hydroxyl group

42-Which of the following is a buffer solution?

***CH₃COO⁻ /CH₃COOH

43-The most stabilized form in the cyclic carbohydrates is?

*** Beta form, because all the (OH-) groups are equal

44- What is the cause of Ehlers-Danlos syndrome?

a) Abnormal procollagen gene

b) reduced collagen production

45-What is the bond produced between two monosaccharides ?

a) Glycosidic bond

b) peptide bond

46-Ligase enzyme is?

*** Join two molecules with covalent bond

47- Which of these are polar covalent bond?

a) P-Ca

- b) H—H
- c) Na—CL

48-A boys' body lacks collagen, which amino acid would makeup for this lack?

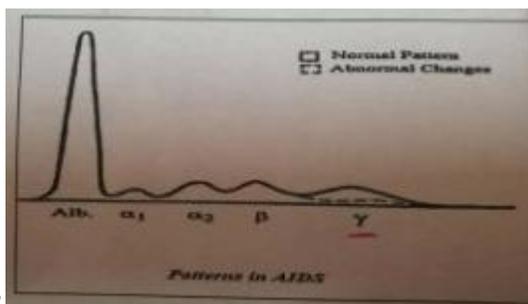
***Glycin

49-One of the following is incorrect according to Vitamins?

****Water soluble vitamins are more stable than fat soluble vitamins

50-The cause of the formation of phenylketonuria ?

*** Defect in the enzyme that is required to convert phenylalanine to tyrosine



51- What is the diagnosis?

****AIDS

52-There are 2 proteins . protein A ,which needs Q to fold and protein B ,which doesn't need Q to fold . So , what is Q ?

*****Chaperon

53-One of the following is correctly matched ?

- a) Myoglobin —no quaternary structure
- b) Myoglobin—transports O₂
- c) Hemoglobin—consists from 8 domains
- d) Hemoglobin —O₂ affinity is higher

54- Which of the following is not a class of phospholipids ?

- a) phosphatidylserine
- b) Lecithin
- c) phosphatidylinositol
- d) ceramide
- e) cholesterol

55-which of the following is present in the mast cells ?

*** Heparin

56- Which of the following is false about haeworth and cyclic sugar?

- a) carbonyl carbon becomes chiral center
- b) the two cycles are called anomers
- c) Haeworth projection is 3d of amino acids and carbohydrates
- d) either c1 or c2 can be anomeric carbon

57-person suffers from eye problems ?

- a) V.A deficiency
- b) V.k deficiency
- c) V.D deficiency
- d) V.C deficiency

58-One best describes Vitamin E?

***Lipid soluble / Antioxidant

59-What is the stationary phase and mobile phase respectively?

- a) solid — liquid
- b) liquid—gas
- c) liquid —solid

60-Apatient has symptoms of rickets and low levels of 25-hydroxy calciferol and high levels of 1,25 dihydroxycalciferol. What is the problem causing his symptoms?

*****Calciferol receptors not working

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