



قائمة الاسئلة

الكيمياء الحيوية الثاني -قسم طب وجراحة الفم والاسنان كلية طب وجراحة الفم والاسنان درجة الامتحان (60)

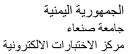
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- 1) high energy bonds yield
 - 1) + >7.3
 - 2) <7.3
 - 3) 7.3
 - 4) <3.7
- 2) the product of glycolysis in erythrocyte is
 - 1) NADPH
 - 2) + Lactate
 - 3) Pyruvate
 - 4) carbon dioxide
- 3) Glucokinase is more active after meal, because:

- 1) + it is an inducible enzyme
- 2) has more affinity to glucose than hexose
- 3) preasnt in al l tissue
- 4) can act on all monosaccharide
- 4) which enzyme catalysis an irreversible reaction

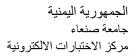
- 1) Transketolase
- 2) + Phospho fructokinase
- 3) Aldolase
- 4) Glyceraldhyde -3-phosphate dehydrogenase
- 5) an example of substrate level phosphotylation is :

- 1) Isocitrate Dehydrogenase
- 2) Enolase
- 3) + Pyruvate kinase
- 4) Glyceraldhyde -3-phosphate dehydrogenase
- 6) The enzyme is inhibited by fluoride ions:
 - 1) Hexokinase
 - 2) Phosoh fructokinase
 - 3) Aldolase
 - 4) + Enolase
- 7) All the enzyme are regulatory EXCEPT:
 - 1) Glycogen phosphorylase
 - 2) Glucose-6-phosphate dehydrogenase
 - 3) pyruvate kinase
 - 4) + Lactate dehydrogenase
- 8) ATP is generated in all the following reaction except





- 1) Glyceraldhyde -3-phosphate dehydrogenase
- 2) 1,3 bis phosphogiycerate
- 3) pyurvate kinase
- 4) + Hexokinase
- 9) Which the following is not true regarding enzymes
 - 1) enzyme are protein and can be denaturated
 - 2) enzyme act a very low concentration
 - 3) enzyme will react with one compound or more
 - 4) + enzyme are smaller than substrate
- 10) :all the following are true with regard to
 - 1) enzymes lawer activation energy.
 - 2) + they alter equilibrium of the reaction
 - D-most of enzyme protein in nature
 - 3) they accelerate the chemical reaction
 - most of enzyme protein in nature
 - 4) most of enzyme protein in nature
- 11) enzyme which are synthesized in inactive form are called
 - 1) Co enzyme
 - 2) + Apo enzyme
 - 3) Lysozy
 - 4) Talo enzyme
- 12) an example of layse is
 - 1) Glutathion synthetase
 - 2) + fumarase
 - 3) cholinesterase
 - 4) amylase
- 13) all of the following are oxidoreductase enzyme except
 - 1) glutathion peroxidase
 - 2) dioxygenase
 - 3) catalase
 - 4) + aldolases
- 14) the enzyme belonging to ligase class is
 - 1) glycogen synthase
 - 2) + glutamin synthetase
 - 3) porphobilinogen deaminase
 - 4) histidine decarboxylase
- 15) : coenzyme are
 - 1) + dialyzable ,non protein molecules
 - 2) colloidal protein molecules
 - 3) structural analogues of enzyme
 - 4) different forms of the same enzyme
- 16) which of the following causes a confirmational change to the active site of an enzyme
 - 1) proteolytic cleavage
 - 2) allosteric inhibitor
 - 3) co enzyme



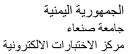


- 4) + competitive inhibitor
- in...... inhibition, the inhibitor is an end product of the enzyme action
 - 1) non competitive
 - 2) allosteric
 - 3) cometitive
 - 4) + feed back
- 18) the Km value of an enzyme
 - 1) + the substrate concentration at half maximal velocity
 - 2) half the substrate concentration at maximal velocity
 - 3) dissociation constants of enzyme substrate complex
 - 4) the total enzyme concentration
- 19) in a competitive inhibition
 - 1) Km is increased and V-max is increase
 - 2) Km is decreased and V-max is normal
 - 3) + Km is increased and V-max is normal
 - 4) Km is decreased only
- 20) all the following are true as regards isoenzymes except
 - 1) + they have identical polypeptide chain
 - 2) they have different affinities to the substrate
 - 3) they can be separated by electrophoresis
 - 4) they are present in different tissue
- 21) digestive enzymes belong to the class of
 - 1) + hydrolases
 - 2) ligases
 - 3) lyases
 - 4) they are present in different cells
- 22) concerning allosteric effectors
 - 1) allosteric effectors are usually analogs of the substrates
 - 2) + the allosteric site of an enzyme is distinct from its substrate binding site
 - 3) allosteric effectors cause denaturation of the enzyme
 - 4) allosteric effectors cause non conformational change in the enzyme
- 23) all of the following metalloenzye contain copper except
 - 1) superoxide dismutase
 - 2) tyrosine
 - 3) glutathion peroxidase
 - 4) + cytochrome oxidase
- 24) the enzyme
 - 1) + reduce the energy of activation
 - 2) increases total energy of substrate
 - 3) increases the equilibrium constant
 - 4) decrease total energy of the protein
- 25) in competitive inhibition
 - 1) + inhibitors has structural similarity to substrate
 - 2) Km is decreased
 - 3) V-max is decreased
 - 4) reaction rate is independent of substrate concentration
- as regards lactate dehydrogenase, all are correct except
 - 1) it is formed of four subunits
 - 2) isoenzymes 5 increase in plasma, in liver disease



- 3) + there are 6 isoenzymes
- 4) isoenzyme 1 increase in plasma in myocardial infarction
- 27) in non competitive inhibition
 - 1) Km increases
 - 2) Km decrease
 - 3) + V-max decrease
 - 4) all
- 28) elevation of the blood level of the following enzyme helps in the diagnosis of hepatitis:
 - 1) Amylase
 - 2) + alanine transaminase
 - 3) creatinine kinase
 - 4) acid phosphatase
- 29) isoenzyme are the enzyme with different amino acid sequences but the same
 - 1) tissue
 - 2) + function
 - 3) Quaternary structure
 - 4) electrophoretic pattern
- 30) low energy bonds as:
 - 1) + ester bond
 - 2) phosphate bond
 - 3) sulfur bond
 - 4) thio ester bond
- 31) / The key enzyme of glycolysis
 - 1) glucose -6- phosphate
 - 2) Glyceraldhyde -3-phosphate dehydrogenase
 - 3) phosphohexose isomerase
 - 4) + phosphofructokinase
- 32) Catalytic activity of phosphofructokinase is increased by
 - 1) + AMP
 - 2) ATP
 - 3) Fructose-1,6-bisphosphate
 - 4) Fructose-1- phosphate
- 33) complete oxidation of one molecule of glucose yields
 - 1) 12 ATP
 - 2) 24 ATP
 - 3) + 38 ATP
 - 4) 29 ATP
- 34) Each turn of alpha helix structure contain -----amino acid
 - 1) + 3.6
 - 2) 2.6
 - 3) 6.3
 - 4) 6.2
- 35) Insulin is example of
 - 1) Alpha helix structure
 - 2) + Quaternary structure
 - 3) Tertiary structure
 - 4) Pleated sheets
- 36) All about Globins are true except:
 - 1) Basic protein

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- 2) Composed of histidine
- 3) Soluble in salt solution
- 4) + Found in fish
- 37) Scleroproteins include the following except
 - 1) Keratin
 - 2) collagen
 - 3) elastin

d- glutelins

- 4) + glutelins
- 38) SCURVY is
 - 1) collagen disease
 - 2) deficiency in ascorbic acid
 - 3) + both
 - 4) none
- 39) All about Lactate is true Except
 - 1) + a. produced from aerobic glycolysis
 - 2) b. fate through cori cycle
 - 3) c. accumulated in muscles
 - 4) d. b and c
- 40) enzyme is activated by phosphorylation of amino acid
 - 1) cysteine
 - 2) + Serine
 - 3) glutamic acid
 - 4) lysine
- 41) vitaellin present in
 - 1) milk
 - 2) + egg yolk
 - 3) plants
 - 4) nut
- 42) All about collagen molecule true except
 - 1) there are more 12 type
 - 2) form about 30 % of total body protein
 - 3) consist of 3 poly peptide
 - 4) + soluble in all solvent
- 43) collagen is
 - 1) soluble and digestible
 - 2) soluble in an organic solvent
 - 3) not activated by vitamin C
 - 4) + none
- 44) myoglobin
 - 1) found in skeletal and cardiac muscle
 - 2) increases in myocardial infarction
 - 3) + all
 - 4) none
- 45) insulin
 - 1) quaternary protein
 - 2) formed of 2 subunit
 - 3) none

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- 4) + all
- 46) all the following coenzyme are involved in the pyruvate dehydrogenase reaction EXCEPT
 - 1) + Biotin
 - 2) NAD
 - 3) FAD
 - 4) Thiamine pyrophosphate
- 47) Pyruvate is converted to actyl COA by
 - 1) + Pyruvate dehydrogenase
 - 2) pyruvate carboxylase
 - 3) pyruvate kinase
 - 4) lactate dehydrogenase
- 48) phosphoglycerate kinase catalyzes conversion OF BPG into
 - 1) 2,3 BPG
 - 2) 2-phosphoglycerate
 - 3) None
 - 4) + 3- phosphoglycerate
- 49) All true about protein EXCEPT
 - 1) Enzyme
 - 2) Transporter
 - 3) + binding by glycosidic bond
 - 4) hormonal regulation
- 50) coagulation factors are
 - 1) + protien
 - 2) Enzyme
 - 3) fat
 - 4) carbohydrate
- 51) Hemolytic Anemia is caused by
 - 1) A- pyruvate kinase deficiency
 - 2) B- Hexokinase deficiency
 - 3) C- Lactic acidosis
 - 4) + D- A & B
- 52) Insulin stimulate
 - 1) + Synthesis of key enzyme
 - 2) Inhibition of key enzyme
 - 3) None
 - 4) Both
- 53) ATP produced from aerobic glycolysis is
 - 1) A- 2 OR 4
 - 2) B- 4 OR 6
 - 3) + C- 6 OR 8
 - 4) D- 8 OR 10
- 54) Fate of glucose through
 - 1) oxidation
 - 2) storage through glycogen
 - 3) conversion to lipid or protein
 - 4) + ALL
- 55) Cori cycle
 - 1) Conversion of glucose into lactate in liver
 - 2) Conversion of lactate into lactate to glucose in peripheral tissue

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- 3) + none
- 4) Both
- 56) Aearobic glycolysis provide the mitochondria with pyruvate, which give
 - 1) + Acetyl COA
 - 2) Lactate
 - 3) 2,3 bis phosphoglycerate
 - 4) 1,6 bis phosphate
- 57) hydroperoxidse enzyme utilizing
 - 1) + H2O2 as substrate
 - 2) H2O as substrate
 - 3) H2 as substrate
 - 4) O2 as substrate
- 58) Alteration of serume enzymes in malignancy may be due to:
 - 1) production of increased amount of enzyme by tumor cell
 - 2) relase of intracellular enzyme due to cell damage
 - 3) + both
 - 4) None
- 59) optimal temperature for enzymatic activity in human body is
 - 1) + A 37 C
 - 2) -B 38 C
 - 3) C 36 C
 - 4) D 39 C
- 60) Co enzyme for transfer of hydrogen
 - 1) NAD
 - 2) Vitamin C
 - 3) Glutathione
 - 4) + ALL