

BIOCHEMISTRY TEST STATEMENTS

Faculty of Pharmacy, 2026, Sm. 1, Exam

Aprobat

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BIOMOLECULES

- 1 1.0 In which molecules hydrogen bonds can form?
- 2 1.0 Select the biomacromolecules:
- 3 1.0 Select the biomacromolecules:
- 4 1.0 Select the biomolecules which contain the functional group -COOH :
- 5 1.0 Select the micromolecules:
- 6 1.0 Select the micromolecules:
- 7 1.0 Select which statements are correct for the chemical compound: $\text{H}_2\text{N-CH}_2\text{-CH}_2\text{-OH}$
- 8 1.0 Which biomolecules contain sulphur?
- 9 1.0 Which biomolecules contains phosphorus?
- 10 1.0 Which functional groups are present in lactic acid?
- 11 1.0 Which functional groups are present in pyruvic acid?
- 12 1.0 Which is the class of chemical compounds acetone belongs to?
- 13 1.0 Which is the class of chemical compounds glycerol belongs to?
- 14 1.0 Which is the most important organogenic element?
- 15 1.0 Which is the name of the functional group
- 16 1.0 Which is the name of the functional group
- 17 1.0 Which is the name of the functional group >C=O ?
- 18 1.0 Which listed bioelement is organogenic?
- 19 1.0 Which statement referring to nitrogen is correct?
- 20 1.0 Which statements are correct for ionic bond?
- 21 1.0 Which statements are correct for van-der-Waals forces?
- 22 1.0 Which statements for hydrogen bond are correct?
- 23 1.1 Select the amino acid that contains the indol functional group:
- 24 1.1 What compounds contain nitrogen?

CARBOHYDRATES

- 1 4.1 Choose the carbohydrate that is present in the human body:
- 2 4.1 Choose the carbohydrate that is present in the human body:
- 3 4.1 Choose the correct statement about disaccharidases - enzymes that hydrolyse the disaccharides:
- 4 4.1 Choose the correct statement about disaccharides:
- 5 4.1 Choose the correct statements about homopolysaccharides:
- 6 4.1 Choose the correct statements about the following compound:
- 7 4.1 Choose the correct statements regarding the following compound:
- 8 4.1 Choose the functions of carbohydrates:
- 9 4.1 Choose the polysaccharide that is specific for humans:
- 10 4.1 Disaccharides - which statements are correct regarding their properties?
- 11 4.1 Fructose - select the correct statement:
- 12 4.1 Fructose - select the correct statement:
- 13 4.1 Glucose - select the correct statement:
- 14 4.1 Glycogen - select the correct statement:
- 15 4.1 Glycogen - select the correct statement:
- 16 4.1 Glycogen - select the correct statements:
- 17 4.1 Homopolysaccharides - select the correct statements:
- 18 4.1 Lactose - select the correct statement:
- 19 4.1 Lactose - select the correct statement:
- 20 4.1 Maltose - select the correct statement:
- 21 4.1 Maltose - select the correct statements:
- 22 4.1 Monosaccharides are:
- 23 4.1 Sucrose - select the correct statement:
- 24 4.1 Sucrose - select the correct statement:
- 25 4.1 The following statement about monosaccharides is true:
- 26 4.1 The following statements about monosaccharides are true:

27 4.1 The function of carbohydrates is:

28 4.1 The function of carbohydrates is:

29 4.1 What is the type of glycosidic bond contained in sucrose?

30 4.1 What kind of glycosidic bonds enter in the cellulose macromolecule?

31 4.1 Which is the type of glycosidic bond in the macromolecule of glycogen that creates the branches?

32 4.1 Which monosaccharide is the most spread in nature?

33 4.1 Which polysaccharide contains β -D-glucose?

34 4.1 Which types of glycosidic bonds are present in the macromolecule of glycogen?

35 4.1.1 Which oligo- or polysaccharide contains the represented compound? **galactose in lactose**

36 4.1.1 Which oligo- or polysaccharide contains the represented compound? Beta-**glucose in cellulose**

37 4.1.1 Which oligo- or polysaccharide contains the represented compound? **fructose in sucrose**

38 4.1.1 Which statement is correct for the following compound? Deoxyribose, part of DNA

39 4.1.1 Which statement regarding the represented structure is correct? **storage carbohydrate the structures can be of starch , glycogen**

40 4.1.1 Which statement regarding the represented structure is correct? **cellulose**

41 4.1.1 Which statement regarding the represented structure is correct? homopolysaccharide

42 4.1.1 Which statements are correct for the following compound? **glucose**

43 4.1.1 Which statements are correct for the following compound? **fructose**

44 4.1.1 Which statements are correct for the following compound? **galactose**

45 4.1.1 Which statements are correct for the following compound? D-galactose linear

46 4.1.1 Which statements are correct for the following compound? D-glucose linear

LIPIDS

1 3.1.1 Chose the lipids that are components of the cell membranes:

2 5.1 According to their biological role lipids are divided into the following classes:

3 5.1 According to their physico-chemical properties lipids are divided into the following classes:

4 5.1 Acylglycerols - select the correct statements:

5 5.1 Cerebrosides - select correct statements regarding their structure:

- 6 5.1 Functions of lipids are:
- 7 5.1 Gangliosides - select the correct statements:
- 8 5.1 Glycerophospholipids - choose the correct statements:
- 9 5.1 Glycolipids:
- 10 5.1 In human cells and tissues the following fatty acids prevail:
- 11 5.1 Lipid components of the cell membranes are:
- 12 5.1 Lipids are:
- 13 5.1 Phosphatidylcholine and phosphatidylethanolamine - choose the correct answers:
- 14 5.1 Phosphatidylcholines and phosphatidylethanolamines - select the correct statements:
- 16 5.1 Sphingomyelins contain:
- 17 5.1 Sphingosine - select the correct answer:
- 18 5.1 Structural classification of lipids - select the specific classes:
- 19 5.1 The following fatty acids are essential for the humans:
- 20 5.1 Which compounds have an acidic functional group in their structure?
- 21 5.1 Which fatty acid has the lowest melting point?
- 22 5.1 Which fatty acid has the lowest melting point?
- 23 5.1.1 Which statement is correct regarding the compound? **ceramide**
- 24 5.1.1 Which statement is correct regarding the compound? **ceramide**
- 25 5.1.1 Which statement is correct regarding the compound? **Phosphatidylethanolamine**
- 26 5.4.1 Select the correct affirmation about fat-soluble vitamins:
- 27 5.4.1 Select the correct affirmation about fat-soluble vitamins:
- 28 5.4.1 Which statement is correct regarding vitamin A?
- 29 5.4.1 Which statement regarding vitamin A is correct?
- 30 5.4.1 Which vitamin is liposoluble?
- 31 5.4.1 Which vitamin is liposoluble?
- 32 5.4.1 Which vitamin is liposoluble?
- 33 5.5 Liposoluble vitamins - choose the correct statement:
- 34 5.5 Metabolism of vitamin D:
- 35 5.5 Vitamin A - select the correct statement:

36 5.5 Vitamin D - select the correct statement:

37 5.5 Vitamin E - select the correct statements:

38 5.5 Vitamin K - select the correct statements:

NUCLEOTIDES

20 2.1 Select the correct statement about the chemical structure: dTDP

21 2.1 Select the correct statement about the chemical structure: TIMINE

22 2.1 Select the correct statement about the chemical structure: dCDP

23 2.1 Select the correct statement about the chemical structure: nucleoside

24 2.1 Select the correct statements about the chemical structure: uridylic acid UMP

25 2.1 Select the correct statements about the chemical structure: pyrimidine nitrogen base

26 2.1 Select the correct statements about the chemical structure: ATP

27 2.1 Select the correct statements about the chemical structure: deoxynucleotide

28 2.1 Select the correct statements about the chemical structure: ADENINE

29 2.1 Select the correct statements about the chemical structure: URACIL

30 2.1 Select the correct statements about the chemical structure: cyclic GMP

AMINOACIDS

1 1.0 Which amino acid contains sulphur?

2 1.0 Which biomolecules contain the functional group -NH_2 ?

3 1.0 Which functional groups are present in asparagine?

4 1.0 Which functional groups are present in cysteine?

5 1.0 Which functional groups are present in threonine?

6 1.0 Which is the name of the functional group -COOH ?

7 1.0 Which is the name of the functional group -NH_2 ?

8 1.0 Which is the name of the functional group -OH ?

9 1.0 Which is the name of the functional group -SH ?

10 1.1 Select the acidic amino acid:

11 1.1 Select the acidic amino acid:

12 1.1 Select the acidic amino acids:

13 1.1 Select the amino acid that contains imidazol group:

14 1.1 Select the amino acid that contains the guanidino functional group:

15 1.1 Select the amino acid that contains the hydroxyl functional group:

16 1.1 Select the basic amino acids:

17 1.1 Select the correct statement about the chemical compound: **the structure can be of any amino acid – phe, ile, tyr, arg, glu, leu, asp, trp, gln, his, gly**

18 1.1 Select the correct statement about the chemical compound:

19 1.1 Select the correct statement about the chemical compound:

20 1.1 Select the correct statement about the chemical compound:

21 1.1 Select the correct statement about the chemical compound:

22 1.1 Select the correct statements about the chemical compound:

23 1.1 Select the correct statements about the chemical compound:

24 1.1 Select the correct statements about the chemical compound:

25 1.1 Select the correct statements about the chemical compound:

26 1.1 Select the correct statements about the chemical compound:

27 1.1 Select the correct statements about the chemical compound:

28 1.1 Select the correct statements about the chemical compound:

29 1.1 Select the correct statements about the chemical compound:

30 1.1 Select the correct statements about the chemical compound:

31 1.1 Select the cyclic amino acid:

32 1.1 Select the cyclic amino acid:

33 1.1 Select the essential amino acid:

34 1.1 Select the hydrophobic non-polar amino acids:

35 1.1 Select the hydroxy amino acid:

36 1.1 Select the imino acid:

37 1.1 Select the monoaminodicarboxylic amino acid:

38 1.1 Select the neutral amino acid:

39 1.1 Select the non-essential amino acid:

- 40 1.1 What compound is the structural unit of simple proteins?
- 41 1.1 What type of amino acids is present in proteins?
- 42 1.1 Which amino acid has the isoelectric point in basic media?
- 43 1.1 Which amino acid has the isoelectric point in basic media?
- 44 1.1 Which compounds contain free amino group (NH₂)?
- 45 1.1 Which compounds contain free carboxylic groups (-COOH)?

PROTEINS

- 1 1.1 Select the correct statements about the tripeptide: *contains neutral amino acids*
- 2 1.1 Select the correct statements about the tripeptide: *consists of basic amino acids only*
- 3 1.1 Select the correct statements about the tripeptide:
- 4 1.2 Classification of proteins - select the correct statement:
- 5 1.2 Globulins - select the correct statement:
- 6 1.2 Histones- select the correct statements:
- 7 1.2 Peptide bond has the following properties:
- 8 1.2 Protein functions are:
- 9 1.2 Select the correct statement about the tertiary structure of proteins:
- 10 1.2 Select the correct statements about hemoglobin (Hb):
- 11 1.2 Select the correct statements about the primary structure of proteins:
- 12 1.2 Select the correct statements about the secondary structure of protein - β -structure:
- 13 1.2 Select the correct statements about the secondary structure of protein - α -helix:
- 14 1.2 Select the correct statements regarding albumins:
- 15 1.2 The primary structure of proteins - select the correct statement:
- 16 1.2 The quaternary structure of proteins - select the correct statements:
- 17 1.2 The secondary structure of proteins - select the correct statement:
- 18 1.2 The tertiary structure of proteins - select the correct statements:
- 19 1.3 Conditions for protein precipitation are:
- 20 1.3 Isoelectric point (pI) - select the correct statement:

- 21 1.3 Protein salting-out is:
- 22 1.3 Protein solubility - select the correct statement:
- 23 1.3 Stability of the protein in a solution is determined by:
- 24 1.3 The total charge of a protein depends on:
- 25 1.3 What functional groups of proteins have acidic properties?
- 26 1.3 What functional groups of proteins have basic properties?
- 27 1.3 What happens during the denaturation of protein molecule?

VITAMINES, COENZYMES

- 1 1.4 Select correct statements regarding the cofactors:
- 2 1.4 Select the correct statement about coenzymes - derivatives of vitamin B2:
- 3 1.4 Select the correct statements about coenzymes FAD and FMN:
- 4 1.4 Select the correct statements about the chemical compound: vitamin PP
- 5 1.4 Select the correct statements about the chemical compound: B2
- 6 1.4 Select the correct statements about the chemical compound: thiamine pyrophosphate
- 8 1.4 Select the correct statements about the cofactors:
- 9 1.6 Select chemical processes that involves chemical compound: thiamine pyrophosphate
- 10 1.6 Select chemical processes that involves chemical compound: BIOTIN
- 11 1.6 Select the chemical process that involves chemical compound: TETRAHIDROPHOLATE
- 13 1.6 Select the chemical process that involves coenzyme A:

ENZYMES

- 1 1.4 Active center (AC) of an enzyme - select the correct statements:
- 2 1.4 Active center of an enzyme is:
- 3 1.4 Allosteric center - select the correct statement:
- 4 1.4 Differences of enzymes from inorganic catalysts are:
- 5 1.4 Hydrolyses - select the correct statement:
- 6 1.4 International Unite of enzyme activity is the amount of:
- 7 1.4 Isoenzymes - select the correct statements:

- 8 1.4 Isomerases - select the correct statement:
- 9 1.4 Katal is the amount of:
- 10 1.4 Ligases - select the correct statements:
- 11 1.4 Lyases - select the correct statement:
- 12 1.4 NAD⁺ coenzyme - select the correct statement:
- 13 1.4 NADP⁺ coenzyme - select the correct statement:
- 14 1.4 NADP⁺ coenzyme - select the correct statement:
- 15 1.4 Oxido-reductases - properties:
- 16 1.4 Select the correct statement about allosteric enzymes:
- 17 1.4 Select the correct statement about the chemical nature of enzymes:
- 18 1.4 Select the correct statements about conjugated enzymes:
- 19 1.4 Select the correct statements about succinate dehydrogenase (SDH) and its activity regulation:
- 20 1.4 Select the correct statements about the enzyme classification:
- 21 1.4 Select the correct statements about the enzyme mechanism of action:
- 22 1.4 Select the correct statements about the enzyme mechanism of action:
- 23 1.4 Select the correct statements about the enzyme that catalyzes the chemical reaction:
hexokinase (glucokinase)
- 24 1.4 Select the correct statements about the enzyme that catalyzes the chemical reaction:
glutaminase
- 26 1.4 Select the correct statements about the enzyme that catalyzes the chemical reaction: malate
dehydrogenase
- 27 1.4 Select the correct statements about the enzyme that catalyzes the chemical reaction: pyruvate
carboxylase
- 28 1.4 Select the correct statements about the enzyme that catalyzes the chemical reaction:
phosphoglucomutase
- 29 1.4 Select the correct statements about the enzyme that catalyzes the chemical reaction: glucose-6-
phosphatase
- 30 1.4 Select the correct statements about the enzyme that catalyzes the chemical reaction: glutamine
synthetase
- 31 1.4 Select the correct statements about the enzyme that catalyzes the chemical reaction: fumarate
hydratase
- 37 1.4 Select the correct statements about the substrate:

- 38 1.4 Select the statement that characterizes enzymes:
- 39 1.4 The common features of enzymes and nonenzymatic catalysts are:
- 40 1.4 The properties that are common for all enzymes:
- 41 1.4 The specificity of enzymes - select the correct statement:
- 42 1.4 Transferases- select the correct statement:
- 43 1.5 Mechanisms of enzyme activation are:
- 44 1.5 Non-competitive inhibition feature is:
- 45 1.5 Select the correct statement about competitive inhibition:
- 46 1.5 Select the correct statement about the allosteric inhibition:
- 47 1.5 Select the correct statements about the presented image:
- 48 1.5 The activation of the enzymes is possible by:
- 49 1.5 The influence of pH on the enzyme activity:
- 50 1.5 The specific inhibition of enzymes is possible by:
- 51 1.5 Thermolability of enzymes - select the correct statements:
- 52 1.5 What is the specific feature of competitive inhibition (CI)?

ENERGETIC METABOLISM

- 1 3.1 Choose the substrate phosphorylation reaction from the Krebs cycle:
- 2 3.1 Metabolism regulation - select the correct statements:
- 3 3.1 Which of the listed substances are high-energy compounds?
- 4 3.1 Anabolism - what statement characterizes it?
- 5 3.1 Anaplerotic reactions - choose the correct statement:
- 6 3.1 ATP hydrolysis types - select the correct reactions:
- 7 3.1 Bioenergetics. What statements characterize it?
- 8 3.1 Biological oxidation:
- 9 3.1 Catabolic and anabolic pathways - choose the correct statements:
- 10 3.1 Catabolism - which statement is characterizing it?
- 11 3.1 Choose the anaplerotic reactions:
- 12 3.1 Choose the coenzyme of the pyruvate dehydrogenase complex:

13 3.1 Choose the coenzyme that is necessary for normal functioning of the Krebs cycle enzymes:

14 3.1 Choose the coenzymes of the pyruvate dehydrogenase complex:

15 3.1 Choose the coenzymes that are necessary for normal functioning of the Krebs cycle enzymes:

16 3.1 Choose the correct statements about the metabolic pathways:

17 3.1 Choose the correct statements regarding the reaction: catalyzed by the enzyme succinyl-CoA synthetase

18 3.1 Choose the correct statements regarding the reaction: catalyzed by the enzyme isocitrate dehydrogenase

19 3.1 Choose the correct statements regarding the reaction: catalyzed by the enzyme phosphoenolpyruvate carboxykinase

20 3.1 Choose the correct statements regarding the reaction: catalyzed by the complex alpha-ketoglutarate dehydrogenase

21 3.1 Choose the correct statements regarding the reaction: transformation is achieved by dehydration, followed by hydration

22 3.1 Choose the correct statements regarding the reaction: catalyzed by the enzyme succinate dehydrogenase

23 3.1 Choose the correct statements regarding the reaction: catalyzed by the enzyme fumarase

24 3.1 Choose the correct statements regarding the reaction: catalyzed by pyruvate carboxylase

25 3.1 Choose the FAD-dependent dehydrogenases (DH):

26 3.1 Choose the metabolism functions:

27 3.1 Choose the NAD⁺-dependent dehydrogenases (DH):

28 3.1 Choose the NAD⁺-dependent dehydrogenases (DH):

29 3.1 Choose the regulatory enzymes of the Krebs cycle:

30 3.1 Choose the substrate phosphorylation reaction from the Krebs cycle:

31 3.1 Choose the vitamin that is a structural element of a coenzyme from the pyruvate dehydrogenase complex:

32 3.1 Choose the vitamin that is necessary for normal activity of Krebs cycle enzymes:

33 3.1 Choose the vitamins that are components of the coenzymes from the pyruvate dehydrogenase complex:

34 3.1 Choose the vitamins that are necessary for normal activity of Krebs cycle enzymes:

35 3.1 Citrate synthase - select the correct statements:

36 3.1 Energy produced during ATP hydrolysis is determined by:

37 3.1 Krebs cycle - choose the correct statements:

38 3.1 Krebs cycle - select the correct statements:

39 3.1 Krebs cycle - which statement characterizes the process?

40 3.1 Metabolism - which statements are characterizing it?

41 3.1 Polyezymatic complex pyruvate dehydrogenase (PDH) - choose the correct statements:

42 3.1 Regulation of the PDH complex activity - select the correct statements:

43 3.1 Select the correct statements about the chemical compound: ATP has two high energy bonds

44 3.1 Select the correct statements about the chemical compound: ATP energy released during its hydrolysis is used in endergonic reactions

45 3.1 Select the correct statements about the chemical compound: NAD

46 3.1 Select the correct statements about the chemical compound: FAD

50 3.1 Succinate dehydrogenase:

51 3.1 The pyruvate dehydrogenase complex (PDHc) - select the correct statements:

52 3.1 The reaction of oxidative decarboxylation of pyruvate is the following:

53 3.1 The role of the pyruvate dehydrogenase complex (PDHc):

54 3.2 ATP synthase - select the correct statements:

55 3.2 ATP-synthase - choose the correct statements:

56 3.2 Cytochromes - select the correct statement:

57 3.2 Inhibition of the electron transporting chain (ETC):

58 3.2 Oxidative phosphorylation - select the correct statements:

59 3.2 Select the ATP synthase inhibitor:

60 3.2 Select the correct statements about the electron transporting chain (ETC):

61 3.2 Select the process that occurs in the inner mitochondrial membrane:

62 3.2 Select the processes that occur in the mitochondrial matrix:

63 3.2 Select the uncoupler of the oxidative phosphorylation:

64 3.2 The end products of the electron transporting chain are:

65 3.2 The mechanism of oxidative phosphorylation - select the correct statements:

66 3.2 The mechanism of oxidative phosphorylation:

67 3.2 Uncouplers of the oxidative phosphorylation - select the correct statements:

68 3.2 Uncouplers of the oxidative phosphorylation - select the correct statement:

69 3.2 Uncoupling of oxidative phosphorylation - choose the correct statements:

CARBOHYDRATE METABOLISM

- 1 4.1 Digestion of carbohydrates - select the enzymes that are involved and their properties:
- 2 4.1 Glucose absorption from the small intestine:
- 3 4.1 Lactose intolerance - select the correct statements:
- 4 4.1 The following 2 monosaccharides result in the digestion of sucrose:
- 5 4.2 Breaking down of 1,6-glycosidic bonds of glycogen (glycogenolysis):
- 6 4.2 Choose the enzymes of glycogenogenesis:
- 7 4.2 Choose the enzymes of glycogenolysis:
- 8 4.2 Glucose-6-phosphate obtained from glycogen in skeletal muscles can be:
- 9 4.2 Glucose-6-phosphate obtained from glycogen in the liver can be:
- 10 4.2 Glycogen phosphorylase - select the correct statements:
- 11 4.2 Glycogen synthase - select the correct statements:
- 12 4.2 Glycogenogenesis - choose the correct statements:
- 13 4.2 Glycogenogenesis - select the correct statements about glycogen synthase:
- 14 4.2 Glycogenogenesis - select the reactions of the process:
- 15 4.2 Glycogenolysis - select the correct statements:
- 16 4.2 Glycogenolysis - which reaction is catalyzed by glycogen phosphorylase?
- 17 4.2 Glycogenosis: glycogen storage disease - select the correct statement:
- 18 4.2 Hormonal regulation of glycogenogenesis - choose the correct statements:
- 19 4.2 Hormonal regulation of glycogenolysis - choose the correct statements:
- 20 4.3 Glycolysis - select the correct statement:
- 21 4.3 Choose the compounds that serve as substrates for gluconeogenesis:
- 22 4.3 Choose the compounds that serve as substrates for gluconeogenesis:
- 23 4.3 Choose the reactions of substrate level phosphorylation:
- 24 4.3 Choose the regulatory enzymes of glycolysis:

- 25 4.3 Common enzymes of glycolysis and gluconeogenesis are the following:
- 26 4.3 Gluconeogenesis - choose the correct statements:
- 27 4.3 Gluconeogenesis - select the correct statements:
- 28 4.3 Gluconeogenesis from alanine - which enzymes are required?
- 29 4.3 Gluconeogenesis from lactate requires the presence of the following enzymes:
- 30 4.3 Glucose-6-phosphatase - select the correct statements:
- 31 4.3 Glycolysis - select the correct statements:
- 32 4.3 Hexokinase - select the correct statements:
- 33 4.3 Hormonal regulation of gluconeogenesis:
- 34 4.3 Hormonal regulation of glycolysis - select the correct statement regarding hormone influence:
- 35 4.3 Pathways of pyruvate usage in human cells are:
- 36 4.3 Pyruvate carboxylase - select the correct statements:
- 37 4.3 Select the correct statement about the following reaction: catalyzed by the enzyme glucose phosphate isomerase
- 38 4.3 Select the correct statement about the following reaction: a reaction of gluconeogenesis
- 39 4.3 Select the correct statement about the following reaction: a substrate level phosphorylation reaction
- 40 4.3 Select the correct statements about the following reaction: catalyzed by enolase
- 41 4.3 Select the correct statements about the following reaction: catalyzed by phosphoglycerate kinase
- 42 4.3 Select the correct statements about the following reaction: catalyzed by fructose-1,6-diphosphate aldolase
- 43 4.3 Select the correct statements about the following reaction: the third reaction of glycolysis
- 44 4.3 Select the correct statements about the following reaction: catalyzes the reaction is glucose-6-phosphatase
- 45 4.3 Select the correct statements about the following reaction: an anaplerotic reaction
- 46 4.3 Select the correct statements about the following reaction: is a substrate level phosphorylation reaction
- 47 4.3 Select the correct statements about the following reaction: catalyzed by glyceraldehyde phosphate dehydrogenase
- 48 4.3 Select the correct statements about the following reaction: catalyzed by the enzyme triosephosphate isomerase

49 4.3 Select the correct statements about the following reaction: GLUCOKINASE

52 4.3 The end products of anaerobic glycolysis are:

53 4.3 What glycolysis enzymes catalyze the reactions in which ATP is synthesized?

54 4.4 Choose the reactions of the oxidative stage of pentose-phosphate pathway:

55 4.4 Effects of insulin on carbohydrate metabolism in the liver:

56 4.4 Enzymes required for fructose metabolism in the liver are:

57 4.4 Essential fructosuria - select the correct statements:

58 4.4 Fructose metabolism in skeletal muscles - select the reactions of the process:

59 4.4 Fructose metabolism in the liver - select the reactions of the process:

60 4.4 Functions of pentose-phosphate pathway are:

61 4.4 Hereditary fructose intolerance - select the correct statements:

62 4.4 Hormonal regulation of glycemia:

63 4.4 Hyperglycemia may be determined by:

64 4.4 Hyperglycemia may be determined by:

65 4.4 Initial compounds for pentose-phosphate pathway are:

66 4.4 Pentose-phosphate pathway of glucose oxidation - select the correct statements:

67 4.4 Reaction: Glucose-6-phosphate + NADP⁺ → 6-phosphogluconolactone + NADPH+H⁺:

68 4.4 Reaction: Pyruvate + NADH+H⁺ ↔ lactate + NAD⁺

69 4.4 The end products of the oxidative phase of pentose-phosphate pathway are: