#.Solutions with equal values of osmotic pressure of blood plasma are called:

-homogeneous

-heterogeneous

-isotonic

- hypertensive

-hypotonic

#. Isotonic blood plasma is a solution:

-NaCl 5%

-NaCl 0.9%

-KCl 5%

-glucose 25%

-glucose 15%

#. When an isotonic solution is added to the blood, a condition called:

- hemolysis

-plasmolysis

-deplasmolysis

-isoosmia

-dehemolysis

#. The volumetric analysis method used to determine chlorine ions in urine is called:

-alkalimetry

-permanganometry

-acidimetry

-argentometry

-chromatometry

#. Solvent vapor pressure above the solution:

-lower than above the pure solvent

-higher than above a pure solvent

-equal to atmospheric pressure

-the same applies to pure solvent

-constantly increasing

#. The main part of the blood buffer capacity is determined by the buffer system:

-phosphate

-ammonia

-bicarbonate

-acetate

- protein

#. Specify the chemical composition of the bicarbonate buffer system

-NaH2PO4 - Na2HPO4

-H2CO3 - NaHCO3

-CH3COONa-CH3COOH

-PtCOONa-PtCOOH

-NH4CO3 -NH4OH

#.The main intracellular buffer system is:

-phosphate

-ammonia

-bicarbonate

-acetate

- protein

#.Specify the chemical composition of the phosphate buffer system

-PtCOONa-Pt COOH

-Na3PO4 -H3PO4

-CH3COONa-CH3COOH

-NaH2PO4 - Na2HPO4

-NH4Cl -NH4OH

#. A buffer system that acts in all cells and tissues of the body:

-phosphate

-ammonia

-bicarbonate

-acetate

-protein

#. Specify the chemical composition of the protein buffer system:

-NaH2PO4 - Na2HPO4

-NaHCO3 -H2CO3

-CH3COONa-CH3COOH

-Pt COOH - PtCOONa

-NH4Cl -NH4OH

#. Specify the disease that belongs to the profession:

-fluorosis

- goiter

- caries

-anthracosis

- strontium rickets

#. The particles that are directly bound to the complexing agent are called:

-inner sphere

-ligands

- the outer sphere

-cation

-Anion

#. The number of ligands is called:

-valence

-degree of oxidation

-coordination number

-electronegativity

-affinity to an atom

#. By chemical nature, ligands can be:

-cations

- metals

-a polar neutral particle or an acidic residue

-an atom and a molecule

-a radical or a free atom

#. If the complex ion is positively charged, the complex is called:

-anionic

-cationic

-neutral

-aqua complex

-acid complex

#. In cationic complexes, the role of ligands is performed by:

-acid residue

-hydroxide group

-metal

-neutral polar molecule

-nonmetal

#. The outer sphere of cationic complexes can be formed by particles:

-acid residue or hydroxide group

-metal

-neutral polar molecule

-nonmetal

-ammonium ion

#. If the complex ion is negatively charged, the complex is called:

-anionic

-cationic

-neutral

-aqua complex

-acid complex

#. The role of ligands in anionic complexes is performed by:

-acid residue or hydroxide group

is a neutral polar molecule

-metal

-ammonium ion

-nonmetal

#. The outer sphere of anionic complexes may contain particles of:

-acid residue or hydroxide group

-metal ion or ammonium

ion is a neutral polar molecule

-nonmetal

-water molecules

#. To determine the concentration of acids and bases, a volumetric analysis method called:

-oxidimetry

-permanganometry

-neutralization

-complexometry

-precipitation

#. The neutralization method, in turn, is divided into methods:

-permanganometry, chromatometry

-alkalimetry, acidimetry

-iodometry, chromatometry

-complexometry, chelatometry

-argentometry, permanganometry

#. The equivalence point in the neutralization method is determined by:

-by precipitation

-by changing the color of the sediment

-by changing the color of the working solution

-at the break point of the titration curve

-by changing the color of the indicator

#. To determine the concentration of substances with an acidic or alkaline reaction, a titrimetry method called:

-oxidimetry

-precipitation

-complexometry

-neutralization

-argentometry

#. To determine HCl concentration in gastric juice from titrimetry methods, the following method is used:

-argentometry

-permanganometry

-alkalimetry

-acidimetry

-chromatometry

#. The working solution used in the alkalimetry method is:

ammonium hydroxide

-sodium hydroxide

-copper hydroxide

-sulfuric acid

- nitric acid

#. The method of oxidimetry used to determine the concentration of hydrogen peroxide is called:

-alkalimetry

-acidimetry

-chromatometry

-permanganometry

-chromatometry

#. The working solution used in the permanganometry method is:

-potassium dichromate

-solution of iodine

-calcium permanganate

-sodium hydroxide solution

-potassium permanganate

#. The role of the indicator in the permanganometry method is performed by:

-working solution

-methylorange

-methyl red

-phenolphthalein

is the test solution

#. Reactions are at the heart of the oxidimetry method:

- neutralization

- exchange

-precipitation

-oxidation-reduction

-complexation

#. A distinctive feature of the disproportionation reaction is that:

-the oxidizer and the reducing agent are contained in the same molecule

-the same atom is both oxidized and reduced

-a cation of one compound takes the place of a cation in another compound

- cyclic complexes are formed

-double salts are formed

#. Which of the listed diseases is endemic?

-aluminosis

-strontium rickets

- berylliosis

- anthracosis

- Argyria

#. A system that exchanges only energy with the external environment is called:

-an open system

-closed system

-isolated system

-homogeneous system

-heterogeneous system

#. A system that does not exchange either mass or energy with the external environment is called:

-homogeneous system

-heterogeneous system

-an open system

-isolated system

-closed system

#. A system that exchanges both mass and energy with the external environment is called:

-isolated system

-closed system

-heterogeneous system

-homogeneous system

-an open system

#. The state of a thermodynamic system in thermodynamics is described using:

- internal energy

-enthalpy

-the amount of work performed

-the amount of energy

-thermodynamic parameters

#. The buffer system that maintains constant acidity due to the bipolarity of the molecule is:

-bicarbonate

-phosphate

- protein

-protein

-amino acid

#. A buffer solution that maintains a constant urine pH is:

-oxyhemoglobin

-amino

 -acid -protein

-phosphate

-bicarbonate

#. Chlorophyll belongs to a type of complex compounds called:

-mixed complex compound

-aquacomplex

-amino complex

-acid complex

-intra-complex compound

#. Vital trace elements are called:

-necessary elements

- biogenic elements

-essential elements

-ultra-essential elements

-ultramicrobiogenic elements

#. The pathological condition of the body caused by trace elements is called:

- elementose

-macronutrientose

-microelementose

- acidosis

-biogenic elements

#. The coordination theory of complex compounds is proposed:

- By Adolf Fick

-By Alfred Werner

-Mohr

-Folgard

-Color

#. The inner sphere of complex compounds consists of:

-the central atom of the counterions

-ligand and potential-determining ions

-complex ion and diffuse layer

-central atom and ligand

-the central atom and the complex ion

#. The charge of the complex ion is equal to:

-the charge of the central atom

-the charge of the ligand

-the coordination number

-the sum of the charges of the central atom and ligands

-the charge difference between the central atom and the ligands

#. Buffer solutions may consist of:

-strong acid and salts of this acid with a weak base

-strong acid and salts of acid with a strong base

-weak acid and salts of this acid with a strong base

-weak acid and salts of this acid with another weak acid

-strong base and salts of this base with another weak base

#. Buffer solutions may include:

-two salts of the same base

-two salts of the same polybasic acid

-two salts of the same monobasic acid

-two double salts

-two mixed salts

#. Buffer solutions are a mixture:

-strong acid and salts of this acid with a weak base

-strong acid and salts of acid with a strong base

-weak acid and salts of this acid with a weak base

-weak acid and salts of this acid with a weak acid

-a weak base and salts of this base with a strong acid

#. The mechanism of buffering action is the formation of:

-weak acid

-a weaker electrolyte than the original one

-a stronger electrolyte than the original

one -a weak base

-salts of weak acid and strong base

#. When sodium hydroxide acts on the phosphate buffer, it forms as a weak electrolyte:

-phosphoric acid

- potassium phosphate

-hydro phosphate ion HPO42-

-sodium phosphate

-water

#. Henry's law defines the dependence of the solubility of gases in a liquid on:

-temperatures

-pressure

-the nature of the substances

-the presence of foreign substances

-the hydrogen index

#. An example of a coarse-dispersed system may be:

-gelatin solution

-agar-agar solution

-red blood salt solution

-chalk solution

-a solution of yellow blood salt

#. An example of a coarse-dispersed system may be:

-albumin solution

-gelatin solution

- blood

- muscles

-foam

#. The method of obtaining colloid from precipitation under the action of chemical reagents is called:

-peptization

- sedimentation

-coagulation

- stabilization

-granulation

#. Precipitation formation at the stage of explicit coagulation is called:

-peptization

-sedimentation

-coagulation

- stabilization

-granulation

#. The clumping of colloidal particles to form larger aggregates is called:

-peptization

- sedimentation

-coagulation

- stabilization

-granulation

#. Identify the coenzyme involved in the reduction of aldehydes in an acidic environment?

-NADH

- NAD-.

- FAD.

- FADH.

- NAD.

#. During the oxidation of organic substances in the body, the following occurs:

-energy absorption

-energy release

-synthesis of new components

-condensation of components

-addition of electrons

#. The oxidation of organic molecules includes the process:

-decomposition of molecules

-addition of a hydrogen molecule

-hydrogen removal

- acquisition of an electron

-the transition of an electron from the reagent to the substrate

#. The product of incomplete oxidation of carbon with a secondary carbon atom is:

-ketone

-aldehyde

-aldehyde alcohol

- ketone alcohol

-acid

#. Under physiological stress, a hormone is released into the blood:

- tyrosine

- phenylanin

- adrenaline

-diothyrosine

-Serotonin

#. Metabolism is called:

-decomposition of sets

-combination of sets

-exchange of food into energy

-energy release

-energy absorption

#. Metabolites are called:

-metabolic products

 -ingested with food

-substances synthesized in the body

-substances that break down in the body

- indigestible food

#. Catabolism is called:

-breakdown of substances in the body

-synthesis of complex sets

-recoverable reactions

-exchange reactions

-reactions of non-centralization

#. Anabolism is called:

-the breakdown of substances in the body

-synthesis of complex sets

-oxidative reactions

-release of energy

-exchange reactions

#. Substituents that increase the electron density in the system are called:

-electron

 -donor -electron acceptor

-carbocation forming agents

-carbonic anion generators

-free radicals forming

#. Reactant particles having a pair of electrons are:

- electrophiles

-nucleophiles

 - ions

- radicals

-nucleofug

#. In the redox process, reduction is accompanied by:

-electron recoil

- breaking of the double bond

-by adding hydrogen

-decrease in the number of electrons

-isomerization of the molecule

#. Sulfur-containing analogues of alcohols and phenols are called:

-sulfides

-disulfides

-mercaptans

- ethers

-thioesters

#. Acidic amino acids include the amino acid:

-serine

-methionine

- cysteine

-aspartic acid

-Histidine

#. The neutral amino acid is:

-lysine

-glycine

-glutamine

-asparagine

-glutamic acid

#. An amino acid that does not contain a chirality center:

-alanine

- Serin

-glycine

- Threonine

-valine

#. The primary structure of proteins is determined by:

-chemical properties of amino acids

-amino acid sequence

-molecular weight

-the number of amino

-acids -the nature of the amino

acids.

#. The tertiary structure of the protein is determined by:

-formation of a polypeptide chain

-formation of oligomers

-spiralization of a polypeptide helix

-a sequence of amino acids

-formation of hydrogen bonds

#. A type of bond not involved in the construction of the tertiary structure of the protein:

-donor-acceptor

-hydrophobic

-ionic

-disulfide

-amide

#. The product of oxidative deamination of amino acids outside the body is:

-dicarboxylic acid

-ketone

-keto acid

-aldonic acid

-oxyacid

#. Protein structure preserved during denaturation:

-primary

-secondary

- tertiary

-quaternary

-basic

#. An amino acid containing a pyrrole core:

-histidine

- tyrosine

-phenylalanine

-proline

-tryptophan

#. By chemical nature, enzymes include:

-carbohydrates

-lipids

- phospholipids

-protein

-steroids

#. During hydrolysis of simple proteins, the cleavage products are:

-glycoproteins

-lipoproteins

-nucleoproteins

-amino acids

-prosthetic groups

#. The transport protein hemoglobin refers to proteins:

-simple

-complex

-lipid

-nucleoproteins

-glycoproteins

#. Protein dialysis is performed for the purpose of:

-fractionation

-separation of simple proteins

-Protein purification

-for protein detection

-separation of peptides

#. Monosaccharide included in the composition of nucleic acids:

-glucose

-galactose

- fructose

-deoxyribose

- sucrose

#. Depending on the nature of the carbonyl group, monosaccharides are divided into:

-esters

-esters

-aldoses

-heterocyclic

-carbocyclic

#. A carbohydrate first synthesized from formaldehyde:

-sucrose

-glucose

- lactose

- maltose

-erithrose

#. The number of chiral carbon atoms in aldohexose:

- one

- two

- five

-four

-three

#. An amino acid involved in protein synthesis and lacking optical properties:

- Alanine

-lysine

-glutamine

-glycine

-serine

#. An amino acid formed in the body during reductive amination:

- asparagine

-glutamic acid

- lysine

-serine

-alanine

#. The number of amino acids reacting to form a tetrapeptide:

-two

-Three

-four

- Five

-six

#. Protein structure determined by the Edman reaction:

-primary

-secondary

- tertiary

-quaternary

-basic

#. The number of sp3 hybrid carbon atoms in glucose:

- one

-three

-four

-five

#. specify non-sugar-like complex carbohydrates:

-chitin, amylopectin

-glycogen, amylose

-fiber, amylopectin

-starch, chitin

-starch, glycogen, fiber

#. The disaccharide, which hydrolyzes to form two glucose molecules, is called:

- lactose

-maltose

- sucrose

-galactose

-cellobiose

#. Name the enzyme of malt sugar hydrolysis:

-amylase

-maltase

-oxidase

- diastasis

-oxidase

#. A disaccharide that hydrolyzes to form one glucose and one galactose:

-lactose

- maltose

-sucrose

-cellobiose

-allose

#. The most common carbohydrate in nature:

-fructose

- maltose

-galactose

-glucose

- mannose

#. The composition of subcutaneous fat includes acids:

-saturated

-unsaturated

-dibasic

-three - basic

-multiaxial

#. How much phosphoric acid is included in phosphatidic acid?

- Five

-one

-two

-three

-four

#. In sterols, the number of carbon atoms in the radical at C-17 is:

-one

-zero

-seven

-eight

 -ten

#. The main role of bile acids in the body:

- energy

-emulsifier

 -catalyst

 -stabilizer

 -peptizer

#. The number of acids isolated from human bile:

- one

- two

 - three

-four

- five

#. The carbon atom, which most often contains an amino group in amino sugars:

-the first

-second

-third

-fourth

- the fifth

#. As a result of this tautomerism, tautomeric forms of glucose are formed in solutions:

-keto-enolic

-lactim-lactam

-cyclo-oxo

- cis-trans

-amino-imine

#. Nucleotides are called:

- nucleic acid monomers

 -nucleic acid polymer

-the carbohydrate parts

-nitrogenous bases

-carbohydrate and phosphate group

#. Essential acids necessary for humans:

-stearin, linoleic acid

-palmitic, linoleic

-linoleic, linolenic

-stearic acid, arachidonic acid

-oleic acid, stearin acid

#. Simple lipids include:

-lecithin

- kefalin

-wax

-cholesterol

-chelesteride

#. Sphingolipid containing the two atomic alcohol sphingosines:

-ganglioside

-phosphatidylserine

-phosphatidylcholine

-ceramide

-acetal phosphatide

#. The carbohydrate that is part of the glycolipid:

-galactose

-glucose

- fructose

- ribose

-deoxyribose

#. Reactions occurring in the C-H acid center of marginal hydrocarbons

-Elimination

-Nucleophilic attachment

-nucleophilic substitution

-synchronous

-electrophilic substitution

#. The elimination reaction is carried out in the presence of which solvent

-alcohol

- Water

-Ether

- benzene

-toluene

#. The acetoacetic acid molecule has the most pronounced CH-acid properties in the carbon atom numbered:

-2

- 1

-3

-4

-5

#. The spatial structure of a protein, formed by the interaction between amino acid radicals, is:

-Primary structure

-Secondary structure

-Super-repetitive

-Tertiary structure

-Quaternary structure

#. The reagent for detecting aromatic amino acids in peptides and proteins is:

 -HNO3;

-HNO2;

-H2SO4;

-HCl.

-H2S

#. Specify the property of the chiral molecule

-has optical activity

-there is a plane of symmetry

-there is a thiol group

-it is combined with a mirror image

-there is no asymmetric carbon atom

#. Specify the names of the substances that cannot be hydrolyzed.:

- glycogen;

-cellulose;

-galactose;

- maltose.;

- starch

#. Which of the following amino acids forms γ-lactam upon heating?

-2-aminobutane;

-3-aminobutane;

-5-aminohexane;

-4-amino-2-methylbutane.

-2-aminopropion

#. When determining the blood buffer capacity by acid in practice, it is used as an indicator:

- phenolphthalein

- lacmus test

-methyl orange

-methyl red

-thymolphthalein

#. According to the value of the standard redox potential of the system, it is possible to predict:

-the formation of products

-splitting of substances

-the pH value of the system

-the direction of the redox process

-charging potential

#. High-energy particles:

- ions

-radicals

- nucleophiles

- electrophiles

-molecules

#. Specify the main function of bile acids in the body:

- energy

-emulsifier

-catalytic

-stabilizer

-peptizing

#. What type of reaction does pyridine nitration belong to:

-nucleophilic substitution

-nucleophilic attachment

-electrophilic connection

-electrophilic substitution

-elimination

#. Specify the coenzyme that enhances the reduction process :

- NAD-

- FAD

- NADP-

-NADH

-NADPH

#. Specify the final oxidation products of nitrogen-containing compounds:

-amine and oxygen

-imine and water

-alcohol and ammonia

-aldehyde and ammonia

-acid and hydrogen

#. In what reaction are α-amino acids formed during the digestion of proteins in the body?:

-condensation

- decomposition

-oxidation-reduction

-hydrolysis

-joining

#. In which environment is the hydrolysis of invitro proteins:

-neutral

-highly alkaline

-alkaline

-in the presence of a polar solvent

-acidic

#. Which bond breaks during hydrolysis of invitro proteins:

-ester

-anhydride

-amide

-ionic

-donor-acceptor

#. In which case does the electrolyte dissociate more easily

-when the dissociation constant has high values

-when the dissociation constant has low values

-when the value of the dissociation constant does not change

-when the value of the dissociation constant changes

-when the dissociation constant has high values

#. Which of the following salts is used as a fast-acting laxative?

-NaHCO3

-MgSO4 \*7H2O

-CaCO3

-NaCl

-KMnO4

#. Anabolism is called

-decomposition of B-B ingested with food

-synthesis of complex B-B from simpler ones

-oxidative reactions

-release of energy

-exchange operations

#.The primary carbon atom

-having one carbon atom

-a carbon atom bonded to one other carbon atom

-a carbon atom carrying a positive charge

-a carbon atom bound to two other carbon atoms

-hydrocarbon radical

#. The secondary carbon atom

-having two carbon atoms

-a carbon atom bound to one other carbon atom

-a carbon atom carrying a positive charge

-a carbon atom bonded to two other carbon atoms

-hydrocarbon radical

#. The tertiary carbon atom

-having three carbon atoms

-a carbon atom bound to one other carbon atom

-a carbon atom carrying a positive charge

-a carbon atom bound to two other carbon atoms

-a carbon atom bonded to three other carbon atoms

#. The inductive effect

-transfer of electronic influence of deputies by pi-connections

-transmission of electronic influence of substituents via sigma links

-redistribution of electron density in a molecule

-the oxidative process

- the recovery processes

#. Substituents have a negative inductive effect.

-attracting electron density by sigma coupling

-repulsive electron density by sigma coupling

-localizing electron density

-having no effect on the molecule

-forming a free radical

#. Electron acceptor substitutions (EA)

-deputies. reducing the electron density in the system

- deputies. increasing the electronic density in the system

- deputies. not affecting the electronic density in the system

-increases the stability of the molecule

-reduces the stability of the molecule

#. Conformations of molecules differ in chemical composition

-energy level

-quantitative composition

-chemical properties

-physical properties

#. When rotating 360 degrees around the sigma bond, how many times does the beveled conformation occur

- one

-two

 -three

 -four

- five

#. Specify the modified form of the amino acid

-oxyproline

- Serin

- Valin

- tyrosine

-Histidine

#. Daily requirement of essential acids for humans

-1g

-3g

-10g

-2g

-5g

#. Nitrogenous ingredient included in lecithin

- chloramine

- Serin

-choline

-threonine

-sphingosine

#. What reaction is typical for saponified lipids?

-oxidation

-substitutions

-hydrolysis

- recovery

# Colloidally dispersed systems include:

-albumin solution

-emulsion

-aerosol

-chalk solution

-suspension

# coarse-dispersed systems include:

-albumin solution

-gelatin solution

-the row

-muscles

-emulsion

#An example of a coarse-dispersed system can be:

-gelatin solution

-agar-agar solution

-red blood salt solution

-chalk solution

-yellow blood salt solution

# An example of a coarse-dispersed system can be:

-albumin solution

-gelatin solution

-blood

-muscles

-foam

#The method of obtaining colloid from precipitation under the action of chemical reagents is called:

-peptization

-sedimentation

-coagulation

-stabilization

-granulation

# Dispersed systems corresponding to the state of the dispersed phase and the dispersion medium include:

-dust, smoke

-fog

-emulsion

-suspension

-alloys

# Dispersed systems corresponding to the state of the dispersed phase and the dispersion medium T/T include:

-dust, smoke

-fog

-cartoons

-suspensions

-alloys

# Substances are called surfactants:

-reducing surface tension

-increasing surface tension

-partially changing the surface tension

-generating surface energy

-changing surface energy

# The reverse adsorption process is called:

-absorption

-by chemisorption

-desorption

-sorption

-by reosorption

#Hydrophilic are hard surfaces:

-wetted with water

-not wettable with water

-not wetted with organic solvent

-not related to wetting

-wetted with organic solvent

# Hydrophobic are hard surfaces

-wettable with water

-not wetted with water

-not wetted with organic solvent

-not related to wetting

-wetted with organic solvent

# Chromatography is a physicochemical method based on the ability of adsorbent:

-to selectively absorb dissolved substances

-change the color of the dissolved substances

-displace absorbed matter

-selectively absorb solvent molecules

-cleave the solute

# If the dissolved substance increases the surface tension of the liquid, the adsorption will be:

-negative

-positive

-selective

-neutral

-double

#. If the dissolved substance lowers the surface tension, then the adsorption will be:

-negative

-positive

-selective

-neutral

-double

#. The adsorption isotherm expresses the dependence of adsorption on concentration under the condition of:

-constant temperature

-at variable temperature

-constancy of pressure

-independent of temperature and pressure

-constancy of volume

#. A granule is a part of a colloidal particle that includes:

-core and diffuse layer

-core and adsorption layer

-diffuse and adsorption layer

-diffuse layer and potential-determining ions

-adsorption and diffuse layers

#. A micelle is a particle that includes:

-core with an adsorption layer

-adsorption and diffuse layers

-core with adsorption and diffuse layers

-core and diffuse layer

-diffuse layer and potential-determining ions

#. The potential-determining ions in a colloidal particle are:

-counterions

-ions granules

-ions of the diffuse layer

-ions that make up the core

-ions adsorbed by an aggregate of molecules

# Micella is capable of independent existence

-an electrically neutral colloidal particle

-negatively charged colloidal particle

-positively charged colloidal particle

-a partially positively charged particle

-partially negatively charged particle

#Coagulation is a phenomenon of:

-particle enlargement as a result of peptization

-wedging action that prevents particles from sticking together

-particle enlargement as a result of the action of molecular bonding forces

-particle enlargement due to gravity

-formation of colloidal systems

 The coagulation threshold is the minimum concentration of electrolyte, which causes:

-latent coagulation after a certain time

-obvious coagulation after a certain time

-the phenomenon of light scattering

-violation of the stability of the solution

-peptization

# The coagulating effect of electrolytes depends on the amount of:

-the charge of an ion equal to the charge of a colloidal particle

-the charge of an ion opposite to the charge of a colloidal particle

-the charge of an ion of the same name as the charge of a colloidal particle

-micelle charge

-counterion charge

The coagulating ability is more pronounced the more

-the higher the charge of the coagulating ion

-less charge of the coagulating ion

-lower electrolyte concentration

-less anion charge

-less counterion charge

#Coagulation can be caused by:

-prolonged dialysis

-by electric spraying in the arc flame

-by dispersion

-by dilution

-concentration

#The protective number is the amount of protective substance to prevent:

-sedimentation

-coagulation

-dialysis

-peptization

-reactions

# A colloidal silver solution is called:

-aspirin

-protargol

-norsulfazole

-sulfadimesine

-nootropil

#A hormone that enters the bloodstream during physiological stress:

-tyrosine

-phenylane

-adrenaline

-diodothyrosine

-serotonin

#Pyruvic acid CH3-C(O)-COOH belongs to the following class of organic substances:

-ester

-aldoketon

-ketoacid

-aldonic acid

-ketoaldehyde

#Specify the amino acid that holds the pyrrole core:

-histidine

-tyrosine

-phenylalanine

-proline

-tryptophan

#Amino alcohol in phosphatidylethanolamine:

-colamine

-choline

-Serin

-acetylcholine

-inositol

#Specify the compound containing imidazole, which is part of the nucleic acids:

-Histidine

-Histamine

-Cytosine

-Timin

-Adenine

#A substance that produces serotonin during metabolism:

-Phenylalanine

-Arginine

-Tryptophan

-Histidine

-Proline

#Tetrapyrrole compounds are among the substances containing:

-Folic acid, barbiturate acid

-Pyridoxal phosphate, pyridoxine

-Furacillin, Furazolidone

-Hemoglobin, chlorophyll

-Xanthine, hypoxanthine

#Specify the group in the analgin formula that distinguishes it from amidopyrine:

-Hydroxide group

-Phenyl radical

-Methyl group

-Sulfogurux

-Dimethylamine group

#Specify pyridine derivatives with biological action:

-Nicotinic acid, pyridoxal phosphate, promedol

-Barbiturate acid, barbamyl, phenobarbital

-Indole, tryptophan, hemoglobin

-Analgin, amidopyrine, antipyrine

-Aspirin, PASK, salol

#Show Purine derivatives with biological action:

-Tubazid, ftivazid, isoniazid

-Indole, tryptophan, hemoglobin

-Analgin, amidopyrine, antipyrine

-Xanthine, Hypoxanthine, Uric acid

-Pyridoxine, pyridoxamine, pyridoxal

#Specify the range of substances containing an imidazole ring with biological action:

-Histidine, histamine, cordiamine

-Barbiturate acid, barbamyl, phenobarbital

-Indole, tryptophan, hemoglobin

-Analgin, amidopyrine, antipyrine

-Aspirin, PASK, salol

#Show the properties of oxyquinoline with antimicrobial properties:

-Tubazide, ftivazide

-Promedol, anesthetic

-Analgin, amidopyrine

-Theophylline, theobromine

-Nitroxoline, enteroseptol

#Specify the amino derivatives of Purine:

-Guanine, adenine

-Pyridoxal phosphate, pyridoxine

-Furacillin, Furazolidone

-Hemoglobin, chlorophyll

-Xanthine, hypoxanthine

#Specify the disease caused by a violation of purine metabolism:

-Tuberculosis

-Pneumonia

-Gout

-Rheumatism

-Hypertension

#Specify the methylated derivatives of xanthine, which are among the alkaloids:

-Tubazid, ftivazid, isoniazid

-Indole, tryptophan, hemoglobin

-Xanthine, hypoxanthine, uric acid

-Theophylline, theobromine, caffeine

-Pyridoxine, pyridoxamine, pyridoxal

#Specify the pyrimidine derivative that causes sleep, psychotropic effect:

-Tubazid

-Folic acid

-Ftivazid

-Glutamic acid

-Barbiturate acid

#Specify the pyridine derivative involved in the transamination reaction:

-Pyridoxine

-Pyridoxamine

-Pyridoxal Phosphate

-Nicotinic acid

-Barbituric acid

#Pyridine is a derivative of a substance known as vitamin PP, which -

-Pyridoxine

-Pyridoxamine

-Pyridoxal Phosphate

-Nicotinic acid

-Barbiturate acid

#Specify the drug that is used in tuberculosis:

-Tubazide

-Folic acid

-Promedol

-Glutamic acid

-Barbiturate acid

#In the Formula for serotonin, specify the group that separates it from tryptamine:

-Methyl

-Hydroxide

-Carboxyl

-Amino

-Aldehyde

#PYRIMIDINE bases in DNA:

-uracil, thymine

-adenine, guanine

-thymine, cytosine

-guanine, cytosine

-adenine, thymine

#Find one of the RNA components:

-pyrimidine base

-mannose

-pyridine base

-pyrrolidine

-deoxyribose

#Specify biologically significant substances that hold the pyrrole ring:

-Tubazid, ftivazid, isoniazid

-Indole, tryptophan, hemoglobin

-Xanthine, hypoxanthine, uric acid

-Theophylline, caffeine, hemoglobin

-Pyridoxine, pyridoxamine, pyridoxal

#Show heterocycle compounds with an antibacterial activity:

-Indole, tryptophan

-Xanthine, hypoxanthine

-Theophylline, theobromine

-Furacillin, Furazolidone

-Pyridoxine, pyridoxamine

#Which of the substances is a derivative of thiophene:

-Salol

-Barbiturate acid

-Biotin

-Xanthine

-Caffeine

#Show pyrazole derivatives with biological action:

-Tubazid, ftivazid, isoniazid

-Indole, tryptophan, hemoglobin

-Analgin, amidopyrine, antipyrine

-Aspirin, PASK, salol

-Pyridoxine, pyridoxamine, pyridoxal

# Which disaccharide is formed in the body during enzymatic hydrolysis of starch and glycogen

-sucrose

-lactose

-maltose

-cellulose

-xylulose

# The main disaccharide used by humans in large quantities

-sucrose

-maltose

-lactose

-cellulose

-xylulose

#Which monosaccharides are formed as a result of sucrose hydrolysis

-two moles of glucose

-glucose and fructose

-glucose and galactose

-galactose and fructose

-two moles of fructose

# Which monosaccharides are formed as a result of lactose hydrolysis

-two moles of glucose

-glucose and fructose

-glucose and galactose

-galactose and fructose

-two moles of fructose

# Which monosaccharides are formed as a result of maltose hydrolysis

-two moles of glucose

-glucose and fructose

-glucose and galactose

-galactose and fructose

-two moles of fructose

# Which acid is formed as a result of oxidation of an aldehyde group in aldohexoses

-gluconic acid

-glyceric

-slime

-glucuronic acid

 -Aldonova

 # The bulk of carbohydrates taken with food is

-glucose

-glycogen

-starch

-sucrose

-cellulose

#Which of the disaccharides forms galactose during hydrolysis

-maltose

-cellobiosis

-sucrose

-lactose

-milk sugar

# When lactose is broken down by lactase, in addition to glucose, it forms

-fructose

-glucose

 -mannose

-galactose

-lactimlactam

# Which monosaccharides are formed as a result of sucrose hydrolysis

-two moles of glucose

-glucose and fructose

-glucose and galactose

-galactose and fructose

-two moles of fructose

#. Which monosaccharides are formed as a result of lactose hydrolysis

-two moles of glucose

-glucose and fructose

-glucose and galactose

-galactose and fructose

-two moles of fructose

#. Which monosaccharides are formed as a result of maltose hydrolysis

-two moles of glucose

-glucose and fructose

-galyucose and galactose

-galactose and fructose

-two moles of fructose

# The bulk of carbohydrates taken with food is

-glucose

-glycogen

-starch

-sucrose

-cellulose

# Which disaccharide forms galactose during hydrolysis

-maltose

-cellobiosis

- sucrose

- lactose

# Which carbohydrate is called fruit sugar

-glucose

-fructose

-galactose

-maltose

#Specify the common name of the carbohydrate with the formula C6H12O6

-maltose

-pentose

-hexose

-tetrose

#Which class of carbohydrates do ribose and deoxyribose belong to?

-aldopentose

-aldohexose

-aldotetrosis

-ketopentose

-ketohexose

#Which carbohydrates undergo hydrolysis

-monosaccharide

-glucose

-polysaccharides

-galactose

-mannose

#Which of the following carbohydrates gives the 'silver mirror' reaction

-Fructose

-sucrose

-ribulose

-glucose

-xylulose

#What is the end product of aerobic glucose oxidation

-ethanol and carbon dioxide

-ethanol and water

-carbon dioxide and water

-lactic acid

-acetic acid and water

# Three hydrogen bonds are formed between complementary bases:

-guanine-cytosine

-adenine-thymine

-thymine-uracil

-cytosine-adenine

-cytosine-adenine