**Fiziology**

1. Excitability with local response:

increased;

absent;

significantly decreased;

not changed;

slightly decreased.

2.The speed of excitation conduction along type "B" nerve fibers m/sec:

3-18;

70-120;

25-40;

0.5-3;

0.1-0.4.

3.Excitation results in:

action potential;

resting potential;

local response;

electrotonic potential;

damage potential.

4.The action of a subthreshold stimulus on a nerve causes:

local response;

action potential;

membrane potential;

decreased excitability;

does not cause any processes.

5.In which tissue are action potentials generated in different parts of the

membrane of unequal amplitude:

glandular;

connective;

nervous;

smooth muscle;

skeletal muscle.

6.Irritability is possessed by:

all correct;

salivary gland cells

leukocyte;

neuron;

connective tissue.

7.Nerve fibers of type "C" have:

the largest chronaxie;

the thickest axial cylinder;

the thickest myelin sheath;

the highest impulse conduction velocity;

the largest action potential amplitude.

8.Excitability is possessed by tissue:

muscular;

cartilaginous;

bone;

connective;

all correct.

9.Which mediator is released at the ends of somatic efferent

fibers:

acetylcholine;

adrenaline;

GABA;

glycine;

norepinephrine.

10. The “All or Nothing” law is obeyed by:

muscle fiber

nerve bundle

glandular tissue

local response

muscle groups

11. A nerve fiber has:

refractoriness;

contractility;

high regeneration;

contracture;

rapid fatigue.

12. Active transport is the transfer of substances:

against the concentration gradient with energy expenditure;

along the concentration gradient;

by endocytosis;

by facilitated diffusion;

along the electrical gradient.

13. Excitability is the ability of tissues:

to respond to irritation with structural changes;

generate an action potential;

become hyperpolarized into a state of refractoriness;

go into a state of refractoriness;

go into a state of inhibition.

14. The parameters of excitability are not characterized by

refractoriness;

chronaxie;

critical level of depolarization;

level of accommodation development

rheobase.

15.Relative erythropenia occurs with:

increase in the volume of the liquid part of the blood;

decrease in erythropoiesis;

intensive destruction of erythrocytes;

blood loss;

increased sweating.

16.The stimulator of erythropoiesis is:

hypoxia;

leukopoietins;

toxins and microbes;

nucleic acids;

leukocyte decay products.

17.Blood clotting is accelerated by:

increase in blood temperature;

addition of sodium citrate;

addition of sodium oxalate;

addition of heparin;

blood cooling.

18. The post-phase of the coagulation process includes:

thrombus retraction

fibrin-polymer formation

thrombus formation

platelet thrombus formation

thromboplastin formation

19. Active blood reaction:

regulated by the buffer system

considered a plastic constant

slightly acidic

pH of arterial blood 7.8

pH of venous blood 7.6

20. Name the primary blood anticoagulants

heparin

fibrin

thrombin

herudin

sodium citrate

21. The formed elements of the blood most active in phagocytosis:

neutrophils, monocytes

lymphocytes, basophils

eosinophils, basophils

eosinophils, lymphocytes

monocytes, lymphocytes

22. Basophils:

produce histamine and heparin;

contains histaminase;

0-5% content in leukogram;

stained with acid dyes;

belongs to agranulocytes.

23. The affinity of hemoglobin for oxygen decreases:

with an increase in 2,3 phosphoglycerate in erythrocytes

with a decrease in the concentration of H ions

with an increase in oxygen tension in tissues

with an increase in 2,3 phosphoglycerate in erythrocytes

with dehydration of the body

24. Solutions that are physiological:

Ringer's, 10% CaCl2;

40% glucose, Tyrode;

0.3% NaCl, 5% glucose;

Ringer's, Tyrode;

Ringer-Locke, 0.7% NaCl.

25. The blood of dangerous universal donors of group I contains:

anti-Rhesus antibodies;

anti A and anti B agglutinins;

anti A and anti B agglutinogens;

hemolysins in large quantities;

Rh factor.

26. The alkaline reserve of the blood is formed by:

alkaline salts of strong acids;

alkaline salts of weak acids;

carbonic acid;

hemoglobin and hydrochloric acid;

proteins and hydrochloric acid.

27. Absolute erythropenia is observed with:

profuse sweating;

at high altitudes;

increased production of red blood cells;

blood loss;

burns and diarrhea.

28. Pathological types of hemoglobin:

oxyhemoglobin;

carboxyhemoglobin;

reduced hemoglobin;

myoglobin;

carbohemoglobin.

29. ESR:

depends on the length of the coin columns;

in men it is 2-15 mm/hour;

with an increase in red blood cells it increases;

in newborns it is higher than in adults;

mainly depends on the content of albumins in the blood.

30. Name the agranulocytes:

eosinophils;

basophils;

lymphocytes;

reticulocytes;

neutrophils

31. Veins through which arterial blood flows:

pulmonary;

hollow;

portal;

renal;

hepatic.

32.The action potential of the cardiac muscle has phases:

slow depolarization;

plateau;

hyperpolarization;

trace depolarization;

slow depolarization.

33.Medium-caliber veins:

have a pronounced layer of elastic fibers;

have valves;

pressure is 60-90 mm Hg;

pressure depends on the phases of respiration;

are resistance vessels.

34.In capillaries, compared with other vessels:

lowest linear velocity of blood flow;

lowest blood pressure;

greatest resistance to blood flow;

highest linear velocity of blood flow;

least resistance to blood flow.

35. Palliary muscle tendinous threads:

prevent valve movement;

prevent valves from everting;

help maintain valve shape;

seal ventricles during diastole;

stretch during protodiastolic period.

36.Nature of cardiac automaticity:

neurogenic;

myogenic;

humoral;

neurohumoral;

neuromyogenic.

37.Blood pressure during carotid sinus denervation:

will decrease briefly;

will not change;

will increase briefly;

will decrease to zero;

will increase steadily.

38.In phlebogram, wave "C" is associated with:

atrial systole;

with closure of sphincters of vena cava orifices;

impulse of pulsating carotid artery;

slamming of the semilunar valves.

slamming of the atrioventricular valves.

39. Physiological properties that distinguish the heart from skeletal muscle:

excitability;

conductivity;

automaticity;

contractility;

refractoriness.

40. Vagus:

has a trophic effect on the heart;

inhibits the heart rate;

increases heart contraction;

releases the mediator norepinephrine;

causes a positive bathmotropic effect.

41. What property allows the heart to contract in a single

mode:

refractoriness;

automaticity;

excitability;

conductivity;

contractility.

42. The highest pressure in the cavities of the heart is observed in:

the phase of asynchronous contraction;

atrial systole;

at the height of blood ejection;

isomeric contraction phase;

protodiastolic period

43. The highest blood pressure in the capillaries:

kidneys;

liver;

spleen;

brain;

lungs.

44. The lowest linear velocity of blood flow in:

capillaries;

small veins;

large veins;

arterioles;

aorta.

45. The cause of the 2nd heart sound:

closure of the semilunar valves

closure of the cusp valves

tension of the tendon threads

tension of the myocardium by the ventricle

opening of the semilunar valves

46. The 3rd heart sound occurs in the phase of:

rapid filling of the ventricles with blood;

period of blood ejection;

period of tension;

protodiastolic period.

asynchronous contraction.

47. Pulse fluctuations are observed in the vessels:

venules;

large-caliber veins;

capillaries;

medium-caliber veins;

arterioles.

48. Name the vasoconstrictors:

medullin;

vasopressin;

adenosine;

bradykinin;

rennin.

49. Sympathetic:

causes a negative chronotropic effect;

has only an enhancing effect;

releases the mediator acetylcholine;

has a trophic effect on the heart;

inhibits the conduction process.

50. Ventricular systole includes the phases:

presystolic period;

protodiastolic period;

tension period;

filling period;

isometric relaxation period.

51. Which phase of the cardiac cycle does the T-P interval correspond to?

general pause

atrial diastole

ventricular diastole

atrial systole

ventricular systole

52. Name the phases of ventricular systole during which the atrioventricular valves are closed:

asynchronous contraction;

isometric contraction;

rapid filling;

slow filling;

presystolic period.

53. Name the phase of diastole during which the semilunar valves are open:

protodiastolic period;

rapid filling phase;

isometric relaxation period;

prestole period;

slow filling phase.

54. Name the phase of the cardiac cycle in which the atrioventricular and semilunar valves are closed:

protodiastolic period;

presystolic period;

asynchronous contraction;

filling;

isometric relaxation.

55. Name the methods of recording bioelectrical phenomena in the heart:

electrokymography;

electromyography;

ballistocardiography;

electrocardiography;

phonocardiography.

56.After the destruction of the medulla oblongata, breathing:

ceases;

becomes rare and deep;

becomes with labored exhalation;

will not change;

becomes frequent and shallow.

57.The centers of conditioned respiratory reflexes are located in:

medulla oblongata;

CBP;

pons Varolii;

spinal cord;

hypothalamus.

58. Which portion of air contains the highest percentage of oxygen:

exhaled;

alveolar;

residual;

expiratory reserve volume;

all of these portions have the same oxygen content.

59. Negative pressure in the pleural cavity is caused by:

inspiratory muscle tone;

expiratory muscle tone;

elastic traction of the lungs;

the presence of surfactant;

hydrostatic pressure of blood in the vessels of the chest cavity.

60. The vital capacity of the lungs includes the volumes of air:

residual, respiratory, minimum;

respiratory, alveolar, reserve inspiration;

alveolar, residual, minimum;

reserve inspiration, reserve expiration, respiratory;

reserve expiration, alveolar, minimum.

61. Alveolar air includes the volumes:

residual, reserve inspiration;

reserve inspiration, minimum;

reserve expiration, residual;

respiratory, residual;

minimum volume, reserve expiration.

62. The reason for non-sticking of the alveoli during inspiration:

presence of surfactant

residual air

bronchial muscle tone

elastic tension of the alveoli

surface tension of the alveoli

63. CO2 is mainly transported in the blood in the form of:

carbhemoglobin;

potassium and sodium bicarbonates;

methemoglobin;

in a state of free solution;

carboxyhemoglobin.

64. Type of hypoxia in mountain sickness:

hypoxemic;

histotoxic;

circulatory;

anemic;

congestive.

65. Respiratory quotient:

for fat - 0.9;

for protein - 0.8;

for carbohydrates - 0.6;

during fasting - 1.0;

during work - decreases.

66. Eupnea is:

normal breathing;

respiratory arrest;

increased ventilation;

rapid breathing;

suffocation.

67.With bilateral transection of the vagus nerve, breathing:

deep and rare;

stops;

increases;

temporary delay;

shallow.

68. Hypocapnia can be caused by:

voluntary weakening of breathing;

inhalation of a gas mixture with 6% CO2;

artificial hyperventilation of the lungs;

asphyxia;

respiratory arrest.

69. Most of the sodium is reabsorbed in the:

proximal convoluted tubules;

collecting tubules;

distal convoluted tubules;

descending limb of the loop of Henle;

ascending limb of the loop of Henle.

70. Diuresis increases with:

excess aldosterone;

administration of hypertonic solutions;

increased secretion of vasopressin;

insufficient production of ADH;

no correct answer.

71. The average filtration pressure in the glomerulus of the nephron:

20\*

50

70

100

120

72. Homeostatic function of the kidneys is not characterized by:

regulation of blood pH;

participation in metabolism;

production of prostaglandins;

participation in lymphopoiesis

participation in erythropoiesis.

73. The kidneys do not produce:

medullin;

renin;

urokinase;

erythropoietin;

plasminogen.

74. Heat is most actively produced in:

cartilage;

brain;

gastrointestinal tract;

adipose tissue;

muscles.

75.Chemical thermoregulation is carried out by:

changing the intensity of heat transfer;

changing the level of sweating;

increasing the intensity of metabolism;

radiation of heat from the surface of the body;

evaporation of heat.

76.Heat transfer is facilitated by:

subcutaneous fat;

clothing;

depression of respiration;

sweating;

the "curling up into a ball" pose.

77.The following are important in physical thermoregulation:

shivering;

basal metabolism;

specific-dynamic action of food;

pulmonary ventilation;

increased muscle tone.

78. The following participate in the regulation of body temperature:

thyroid hormones;

adrenal adrenaline;

all correct;

caudal part of the hypothalamus;

cerebral cortex.

79. Compared to primary urine, terminal urine does not contain:

hormones;

glucose;

vitamins;

enzymes;

bile pigments.

80. Moderate work requires protein (gr):

60;

100;

110;

130;

150.

81. A negative nitrogen balance is observed when:

protein synthesis predominates over breakdown;

body growth;

after severe diseases;

pregnancy;

protein starvation.

82. Name the fat-soluble vitamins:

C; folic acid;

K;

B;

PP.

83. Afferent nerve of the oral cavity:

submandibular;

accessory;

chorda tympani;

glossopharyngeal;

hypoglossal.

84.Castle factor, antianemic, is synthesized by:

parietal cells of the stomach;

accessory cells of the stomach;

hepatocytes;

chief cells;

enterocytes.

85.Factor stimulating profuse salivation:

emotions;

pain;

stimulation of the chorda tympani nerve;

stimulation of the vagus nerve;

stimulation of the hypoglossal nerve.

86.Enzyme of intestinal juice that hydrolyzes proteins:

enterokinase;

trypsin;

pepsin;

erepsin;

chymotrypsin.

87.In the oral cavity there is:

initial hydrolysis of carbohydrates;

absorption of food digestion products;

initial hydrolysis of fats;

initial hydrolysis of proteins;

all are correct.

88. Intestinal motility is inhibited by:

irritation of the nuclei of the posterior hypothalamus;

soaps;

coarse food;

bile acids;

acids.

89. Intestinal motility is inhibited by:

cholecystokinin;

gastrin;

excitation of the vagus nerve;

norepinephrine;

acetylcholine.

90. Intestinal contractions that cause fragmentation of chyme:

peristaltic;

pendulum-shaped;

rhythmic segmentation;

tonic;

antiperistaltic.

91. The importance of intestinal microflora:

activates the enzymes trypsin, amylase;

synthesizes vitamins K, B;

breaks down proteins;

promotes infection of the body;

breaks down fats.

92. The act of defecation:

involuntary;

the nerve center is located in the medulla oblongata;

occurs when the receptors of the rectum are irritated;

sympathetic influences reduce the tone of the sphincter;

sympathetic fibers excite the motility of the rectum.

93. The role of secretin in digestion:

regulates the secretion of bicarbonates of pancreatic juice

stimulates gastric secretion

increases the movement of villi

inhibits bile secretion

stimulates gastric motility

94. Saliva contains enzymes:

gamma amylase;

maltase;

invertase;

lactase;

galactase.

95.Imbalance due to damage to the cerebellum:

de-equilibration;

dystonia;

adiadochokinesia;

ataxia;

asthenia.

96. The soma of the afferent neuron is located in:

spinal ganglia;

posterior horns of the spinal cord;

anterior and lateral horns;

autonomic ganglia;

intramural ganglia.

97. The following are not part of the reflex arc:

receptors;

efferent nerve fiber;

neuromuscular synapse;

afferent nerve fiber;

working organ.

98. The "What is" reflex:

acquired;

orienting;

absent in anencephalics;

does not fade with repeated action of the stimulus;

has a center in the medulla oblongata.

99. Orienting reflex:

has centers in the medial geniculate bodies;

disappears when the cortex is removed;

has adaptive significance;

is conditional;

is developed during life.

100. Dominant focus in the central nervous system:

is inert;

has low excitability;

stimulates neighboring centers;

is not stable;

has only a biological nature.

101. The knee jerk is represented by a reflex arc consisting of:

two neurons;

three neurons;

four neurons;

five neurons;

multineuron reflex arc.

102. Nerve centers are characterized by:

one-sided conduction of excitation;

high excitability;

high lability;

relative fatigue resistance;

low metabolism.

103. The main cause of fatigue of nerve centers is:

the presence of constant tone of nerve centers;

a decrease in mediator reserves;

a decrease in the sensitivity of the postsynaptic membrane to the mediator;

decrease in energy resources of the postsynaptic membrane;

prolonged irritation of efferent fibers.

104. With decerebrate rigidity in a cat:

sharply increases flexor tone;

the black substance of the midbrain is affected;

the gray matter of the anterior horns of the spinal cord is affected;

decreased skeletal muscle tone;

sharply increases extensor tone.

105. Hormone that ensures physical, mental and sexual development:

insulin;

adrenaline;

aldosterone;

hydrocortisone;

thyroxine.

106. Effector hormones include:

ACTH;

gonadotropic;

thyroid-stimulating;

oxytocin;

follicle-stimulating.

107. The anterior pituitary gland produces the hormone:

oxytocin;

melanotropin;

ADH;

somatotropic;

vasopressin.

108.With myxedema:

the basal metabolic rate increases;

mucous edema occurs;

exophthalmos appears;

body weight decreases;

food consumption increases.

109. Hypothyroidism:

occurs with Graves' disease;

elevated body temperature;

excessive irritability;

increased sweating;

decreased basal metabolism.

110. Graves' disease:

decreased body temperature;

mental disorder;

excessive production of hormones;

normal basal metabolism;

mucous tissue edema is observed.

111. Parathyroid hormone:

thyroid hormone;

activates osteoblasts;

stimulates osteoclasts;

decreases the concentration of Ca2+ in the blood;

increases the level of phosphorus in the blood.

112.Signs of diabetes insipidus:

glucosuria;

hyperglycemia;

polyuria;

polyphagia;

macroglossia.

113. Name the anti-inflammatory hormone:

glucocorticoids

androgens

serotonin

adrenoline

triiodothyronine

114. Taste afferent signals go through:

cingulate gyrus;

posterior colliculus;

anterior colliculus;

arcuate nuclei of the thalamus;

hypothalamus.

115. Rods:

6-7 million in the retina;

located in the macula lutea;

predominant in diurnal animals;

more sensitive than cones;

contain iodopsin.

116.At dusk:

central vision predominates;

lower light sensitivity;

night blindness due to vitamin A deficiency;

cones function;

colors are distinguished.

117. On the retina:

more cones towards the periphery;

the central fovea contains only rods;

the optic papilla is a blind spot;

the pigment layer contains rhodopsin;

there is an accommodative system of the eyes.

118.The rods contain the pigment:

rhodopsin;

chlorolab;

erythrolab;

iodopsin;

fuscin.

119.When the eye darkens:

visual purple regenerates;

the retina needs vitamin D for the resynthesis of rhodopsin;

retinal is isomerized;

luminorhodopsin is formed;

retinal is split off from opsin.

120.The primary sensory receptors include:

photoreceptors;

auditory;

vestibular;

thermal;

taste.

121. Secondary sensory receptors:

tactile;

olfactory;

proprioceptors;

cold;

rods and cones of the retina.

122. Rapidly adaptable receptors include:

cold;

heat;

tactile;

pain;

vestibular.

123. Retinal pigment epithelium:

absorbs light

is the accommodative apparatus of the eye

contains melanin

contains photoreceptors

reduces light perception

124. How will vision change if the left optic tract is cut:

partial blindness of the right and left eyes

complete blindness of the right eye

complete blindness of the left, partial of the right eye

complete blindness of the right, partial of the left eye

complete blindness of the left eye

125. If the main membrane of the organ of Corti near the oval window is damaged:

conditional reflexes to high tones disappear

hearing completely disappears

conditional reflexes to low tones disappear

perception of medium-frequency tones is impaired

hearing decreases

126. Structure of the auditory analyzer:

41,42 field of the temporal region

piriform cortex area

anterior colliculus of the quadrigemina

afferent neurons of the vagus nerve

lateral geniculate bodies

127. The light-perceiving part of the eye includes:

cornea;

pupil;

retina cones and rods;

crystalline lens;

bipolar neurons of the retina.

128. Sound vibrations:

a sound wave propagates in the cochlea as a traveling wave

causes endolymph vibrations in the superior canal

transmitted to the cochlea by means of the helicotrema

leads to the displacement of the oval window

transmitted to the membrane of the oval window by means of the incus

129.With myopia:

image in the vitreous body;

hyperopia develops;

called mydriasis;

accommodative efforts are small;

biconvex lenses are used for correction.

130. In hyperopia:

focus in the vitreous body;

condition of myopia;

biconcave lenses are used for correction;

distant point of clear vision is close;

longitudinal axis of the eye is short.

131. Pupil:

opening in the center of the cornea;

promotes image clarity;

promotes spherical aberration;

in bright light 4.8 mm;

narrows in the dark.

132. Unconditioned reflexes:

individual;

closed at the level of the cerebral cortex;

requires development;

have adequate stimuli;

appear immediately after birth.

133. On the EEG, activation of mental activity is assessed by rhythm:

alpha;

beta;

delta;

theta;

gamma.

134. Conditioned reflexes:

are evoked from specific receptive fields;

are closed at the level of the brain stem;

are inhibited with difficulty;

are developed in response to any stimuli;

are inherited.

135. In which phase of parabiosis does a positive reaction to differentiated stimuli occur:

equalizing

paradoxical

inhibitory

ultraparadoxical

excitation

136. In the whole organism, skeletal muscles contract.............

isotonically

hypertonic

hypometrically

singly

auxotonic

137. In myelinated nerve fibers:

excitation conduction velocity 0.5-3 m/sec

high density of potassium channels

action potential only at the nodes of Ranvier

unilateral conduction of excitation

excitation spreads along the entire membrane

138. Electrical phenomenon in living tissue at rest:

membrane potential;

local response;

electrotone;

repolarization;

action potential.

139. Name the triad of muscle fiber:

actin, myosin, Ca++;

troponin, tropomyosin, Ca++;

transverse and two longitudinal tubules;

myoglobin, actin, ATP;

Ca++, ATP, action potential.

140. In the whole organism, fatigue develops first in:

motor neuron;

muscle;

neuromuscular synapse;

CNS;

ganglia.

141. What types of nerve fibers are myelinated:

A and C;

B and C;

A and B;

A, B, C;

C.

142. Physical properties of muscles:

ability to regenerate;

excitability;

elasticity;

conductivity;

refractoriness.

143. The largest quantities in plasma are:

albumins;

γ-globulins;

fibrinogen;

hemoglobin;

β-globulins.

144. Agglutinin beta is found in blood groups:

I and III;

I and II;

II and III;

III and IV;

I and IV.

145. Blood pH in acidosis:

7.1 – 7.2;

7.7 – 7.8;

7.5 – 7.7;

7.3 – 7.4;

7.8 – 8.0.

146. Thrombus retraction is caused by:

thrombosthenin;

serotonin;

fibrinolysin;

heparin;

thromboplastin.

147. Hemoglobin affinity for oxygen decreases:

with an increase in 2,3 phosphoglycerate in erythrocytes

with a decrease in the concentration of H ions

with an increase in oxygen tension in tissues

with an increase in 2,3 phosphoglycerate in erythrocytes

with dehydration of the body

148. ESR:

depends on the length of the coin columns;

in men it is 2-15 mm/hour;

increases with an increase in red blood cells;

higher in newborns than in adults;

mainly depends on the albumin content in the blood.

149.Retraction is called:

clot compaction;

fibrin breakdown;

platelet adhesion;

platelet aggregation;

clot dissolution.

150.Hemoglobin:

consists of 4 protein molecules and 1 heme molecule;

increases blood viscosity;

is contained in blood plasma;

stimulates erythropoiesis;

forms bilirubin when broken down.

151.Leukopoiesis is stimulated by:

tissue breakdown products;

ACTH, STH;

nucleic acids;

leukopoietins;

all of the above.

152.With prolonged stay at high altitudes, the following is observed:

reticulocytes appear in the blood;

bone marrow mass decreases;

the sensitivity of the central nervous system to hypoxia increases;

the frequency and depth of breathing decreases;

the oxygen capacity of the blood decreases.

153. Name the agranulocytes:

eosinophils;

basophils;

lymphocytes;

reticulocytes;

neutrophil

154. In case of domestic trauma, hemostasis begins with:

platelet adhesion;

formation of fibrin threads;

local vasoconstriction;

platelet aggregation;

formation of prothrombinase.

155. In case of large blood loss.....

blood leaves the blood depot

blood flow rate decreases

heart rate decreases

arterioles dilate

blood volume velocity increases

156. Blood group II agglutinates with serum of blood groups:

I and IV;

II and I;

III and I;

II and III;

IV and III.

157. Blood group 0 (I) contains:

agglutinogen A;

agglutinogen B;

agglutinogens A and B;

anti A and anti B agglutinogens;

agglutinin α and β.

158. ESR accelerates:

decrease in albumin-globulin coefficient

decrease in cholesterol

increase in red blood cell count

increase in bile acid concentration

increase in bile acid concentration

159. Neutrophils:

main function is phagocytosis

makes up 18-40% of leukocytes

are considered immune memory cells

increases during helminthic invasion

produces thrombosthenin

160. Arterioles:

belong to capacitive vessels;

blood flow is pulsating;

blood pressure drops slightly;

called taps of the vascular system;

in a working organ, arteriole tone increases.

161.Second-order blood pressure waves:

coincide with respiratory movements;

blood pressure increases when inhaling;

occur after blood loss;

appear when ascending to a height;

the most common.

162. First-order waves of arterial pressure are observed:

in arteries

in arterioles

in capillaries

in venules

in veins

163. Pulse wave propagation velocity:

depends on blood flow velocity;

decreases with age;

decreases with increased vascular elasticity;

in peripheral arteries equals 5.5-8 m/s;

in the aorta equals 6-9.5 m/s.

164.Forces that do not affect blood flow in veins:

suction action of the chest;

skeletal muscle contraction;

venous wall tone;

venous valves;

residual energy of cardiac contraction.

165. Vasoconstrictor:

angiotensin-II

medulin

bradykinin

histamine

ATP

166. On the ECG, the repolarization process is reflected by the wave:

P;

T;

R;

Q;

S.

167. Excitation of the atria is reflected by the wave:

P;

Q;

R;

S;

T.

168. The highest blood flow per 100 g of body weight is noted in:

stomach;

spleen;

brain;

thyroid gland;

intestines.

169. Which part of the cardiac conduction system is normally the pacemaker:

sinoatrial;

atrioventricular node;

bundle of His;

bundle of Bachmann;

Purkinje fibers.

170. Name the sympathetic reflexes of the heart:

Bain-Bridge

Goltz

Danini-Aschner

Hering-Breuer from receptors of the carotid artery

from receptors of the aortic arch

171. Acetylcholine:

breaks down slowly;

increases heart contractions;

is released at the endings of the parasympathetic nerves;

has a general effect on the body;

increases myocardial excitability.

172.The greatest capacity for automaticity is possessed by:

Wenckebach bundle;

Kees-Fleck node;

Aschoff-Tawara node;

His bundle;

Purkinje fibers.

173.Continuity of blood flow in the vessels is ensured by:

vascular elasticity;

rhythmic work of the heart;

energy of cardiac output;

venous return to the heart;

blood viscosity.

174. Blood pressure increases:

in summer;

during physical exertion;

with an increase in atmospheric pressure;

when exposed to heat;

during sleep.

175. Linear velocity of blood flow in the systemic circulation:

initially increases then decreases

initially decreases then increases

does not change

increases in capillaries

starting with the aorta in large veins it decreases

176. Arterial pulse:

palpated on any artery that can be pressed against the bone;

increased rate is called bradycardia;

less common in women than in men;

the recording is called a phlebogram;

increases at the height of inspiration.

177.Arrangement of electrodes in standard lead I:

right arm – left leg;

right arm – left arm;

left leg – left arm;

right arm – right leg.

left arm – right leg.

178. The conduction system of the heart of cold-blooded animals includes:

Remak node;

Kiss-Flak node;

Bachmann bundle;

His bundle;

Aschoff-Tawara node.

179. Ventricular extrasystole is characterized by:

the QRST wave complex does not change;

the presence of a compensatory pause;

the atrial rhythm slows down;

the automaticity of the sinus node is disrupted;

the next impulse from the atria causes the ventricles to contract.

180. Name the property of the heart that distinguishes it from striated

muscle:

conductivity;

automaticity;

contractility;

refractoriness;

excitability.

181. Extrasystole cannot occur in:

diastole;

during the period of absolute refractoriness;

during the period of supernormality;

general cardiac pause;

during the period of relative refractoriness.

182.The vessels of which organ create the least resistance to blood flow:

lung;

brain;

liver;

skin;

kidneys.

183. Extrasystole is:

absence of systole;

simultaneous contraction of the atria and ventricles;

extraordinary contraction;

stop in systole;

prolonged systole.

184.Types of hypoxia with absence of hypoxemia:

in case of circulatory failure;

in case of lung diseases;

in case of decrease in oxygen capacity of blood;

in case of some heart defects with presence of arteriovenous shunts;

in case of low partial pressure of oxygen in inhaled air.

185.During acclimatization in high-mountainous areas the following is observed:

increased sensitivity of tissues to hypoxia;

decrease in number of red blood cells in blood;

decrease in pulmonary ventilation;

increased hematopoiesis;

decrease in oxygen capacity of blood.

186. Receptors and effectors of the Hering-Breuer reflex:

Mechanoreceptors of the muscles of the lungs and airways

External intercostal muscles

Proprioreceptors

Internal intercostal muscles

Diaphragm

187. Surfactant:

covers the alveoli from the outside;

produced by type II pneumocytes;

increases the surface tension of the alveoli;

consists of proteins;

parasympathetic influences inhibit production.

188. Reflex, the afferent pathway of which passes through the vagus:

Hering-Breuer;

Goltz;

Danini-Aschner;

Parin;

Bain-Bridge.

189.The coefficient of utilization of oxygen absorbed by tissues from arterial blood at rest:

10-20%;

30-40%;

1-2%;

50-60%;

70-100%.

190.After a deep exhalation, the following remains in the lungs:

residual volume;

expiratory reserve volume;

expiratory reserve volume and residual volume;

inspiratory reserve volume;

only the minimum volume.

191.Asphyxia is characterized by:

hypoxemia, normocapnia;

hypoxia, hypercapnia;

hypoxia, hypocapnia;

hyperoxia, hypercapnia.

normocapnia, hypercapnia.

192.Where are irritant receptors located in the human body:

only in the area of ​​the roots of the lungs;

in the area of ​​the tracheal bifurcation;

in the epithelium and subepithelial layer of all airways;

near the capillaries of the pulmonary circulation.

all correct.

193. Inhalation is accompanied by:

increased blood flow to the heart;

decreased muscle effort;

decreased elastic recoil of the lungs;

decreased blood flow to the heart;

increased intrapleural pressure.

194. VC:

the sum of the residual and respiratory volumes of the lungs;

more when standing than sitting;

less when standing than lying down;

the sum of the tidal volume and expiratory reserve volume;

the sum of the tidal volume and expiratory reserve volume.

195. Alveolar air:

is the internal environment of the body;

the composition depends on inhalation and exhalation;

contains O2 - 16%, CO2 - 4.5%;

includes residual air and the volume of reserve inspiration;

has a volume of approximately 5 liters.

196.Relaxation of the bronchial muscles occurs under the influence of:

histamine;

serotonin;

prostaglandins;

adrenaline;

acetylcholine.

197.At an altitude of 2.5-5 km:

pulmonary ventilation decreases;

blood pressure decreases;

heart rate slows;

hypoxia occurs;

atmospheric pressure increases.

198.VC is the sum of the volumes of:

respiratory and reserve inhalation and exhalation;

respiratory and residual;

reserve inhalation and exhalation and residual;

alveolar and residual;

reserve inhalation and exhalation.

199.The part of the central nervous system responsible for the conditioned respiratory reflex:

cerebral cortex;

spinal cord;

medulla oblongata;

pons;

hypothalamus.

200.Basal metabolism is measured (eliminate unnecessary):

in a sitting position;

at a comfortable room temperature;

on an empty stomach;

in the absence of emotional reactions;

in the morning, after sleep.