Таблица 1.Общие сведения

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| 1 | Учебное заведение | ФГБОУ ВО АстГМУ |
| 2 | Специальность | Лечебное дело. Фармация. |
| 3 | Дисциплина | Нормальная физиология |
| 4 | Автор заданий | В.Р.Горст |
| 5 | Телефон |  |
| 6 | Электронная почта |  |
| 7 | СНИЛС |  |

Таблица 2.Перечень заданий по дисциплине

|  |  |  |
| --- | --- | --- |
| **Вид** | **Код** | **Текст названия трудовой функции/ вопроса задания/ вариантов ответа** |
| Ф |  | **Circulatory system** |
|  |  |  |
| В | 001 | What is the function of the heart: |
| О |  | excretory |
| О |  | hematopoietic |
| О |  | pumping |
| О |  | respiratory |
|  |  |  |
| В | 002 | Swing valves are located: |
| О |  | between the atriums and the ventricles |
| О |  | between the pulmonary veins and the left atrium |
| О |  | between the vena cava and the right atrium |
| О |  | between the ventricles and the great arteries |
|  |  |  |
| В | 003 | What is the function of the ventricles: |
| О |  | expulsion of blood into the arteries |
| О |  | expulsion of blood to the atria |
| О |  | flap closure |
| О |  | provides one-way blood flow through the heart |
|  |  |  |
| В | 004 | What function does the endocardium perform? |
| О |  | forms valves |
| О |  | provides pumping activity |
| О |  | reduces friction of blood |
| О |  | regulates blood flow through the vessels of the heart |
|  |  |  |
| В | 005 | The sequence of contractions of the atria and ventricles determines: |
| О |  | atrioventricular delay |
| О |  | pressure gradient between atria and ventricles |
| О |  | semilunar valve operation |
| О |  | sinus node function |
|  |  |  |
| В | 006 | What is the function of veins? |
| О |  | Carry blood from the capillaries to the atria |
| О |  | Carry blood from the heart |
| О |  | Carry blood from the ventricles to arterioles |
| О |  | Carry blood to the heart |
|  |  |  |
| В | 007 | Indicate myocardial function: |
| О |  | decrease friction during heart function |
| О |  | forms flap valves |
| О |  | protects blood cells from destruction |
| О |  | provides pumping function |
|  |  |  |
| В | 008 | Semilunar valves are located in: |
| О |  | between the atria and the ventricles |
| О |  | the mouth of the aorta |
| О |  | the mouth of the pulmonary veins |
| О |  | the mouth of the vena cava |
|  |  |  |
| В | 009 | The large circle of blood circulation begins: |
| О |  | at pulmonary arteries |
| О |  | at pulmonary trunk |
| О |  | at the aorta |
| О |  | at vena cava |
|  |  |  |
| В | 010 | The pulmonary blood circulation begins |
| О |  | at pulmonary arteries |
| О |  | at pulmonary trunk |
| О |  | at the aorta |
| О |  | at vena cava |
|  |  |  |
| В | 011 | What is the function of the pericard? |
| О |  | to forms valves |
| О |  | to generate impulses |
| О |  | to provide myocardial contraction |
| О |  | to reduce friction |
|  |  |  |
| В | 012 | What is the normal maximum pressure in the right ventricle? |
| О |  | 25-30 mmHg |
| О |  | 60-80 mmHg |
| О |  | 120-130 mmHg |
| О |  | 10-15 mmHg |
|  |  |  |
| В | 013 | What is the normal maximum pressure in the left ventricle? |
| О |  | 120-130 mmHg |
| О |  | 25-30 mmHg |
| О |  | 60-80 mmHg |
| О |  | 70 - 90 mmHg |
|  |  |  |
| В | 014 | Cardiac Cycle begins with: |
| О |  | atrial diastole |
| О |  | atrial systole |
| О |  | general pause |
| О |  | ventricular systole |
|  |  |  |
| В | 015 | General pause is: |
| О |  | atrial and ventricular relaxation |
| О |  | atrial systole |
| О |  | expulsion of blood |
| О |  | opening semilunar valves |
|  |  |  |
| В | 016 | What is a feature of the action potential of a typical myocardium? |
| О |  | plateau |
| О |  | peak AP |
| О |  | large magnitude |
| О |  | depolarization phase |
|  |  |  |
| В | 017 | What gives of the phase of absolute refractoriness? |
| О |  | synchronous contraction of myocardial fibers |
| О |  | rhythmic contractions of the heart |
| О |  | impossibility of tetanic contractions |
| О |  | consecutive atrial and ventricular contractions |
|  |  |  |
| В | 018 | The plateau of the action potential of a typical myocardium is due to: |
| О |  | operation of ion pump |
| О |  | inactivation of sodium channels |
| О |  | fast entry of sodium into the cell |
| О |  | entry of calcium ions into cells and exit of potassium ions from a cell |
|  |  |  |
| В | 019 | The law "All or nothing" in the heart shows: |
| О |  | the relationship between the force of contractions and the length of muscle fibers |
| О |  | contraction force independences from irritation frequency |
| О |  | contraction force independences from irritation force |
| О |  | contraction force dependences from irritation force |
|  |  |  |
| В | 020 | The phase of relative refractoriness in the heart coincides with: |
| О |  | rapid initial depolarization |
| О |  | plateau |
| О |  | fast final repolarization |
| О |  | depolarization |
|  |  |  |
| В | 021 | How many chambers does have a human's heart ? |
| О |  | 1 |
| О |  | 2 |
| О |  | 3 |
| О |  | 4 |
|  |  |  |
| В | 022 | How many percent from the body weight is the heart? |
| О |  | about 0.5% |
| О |  | 5% |
| О |  | 10% |
| О |  | 15% |
|  |  |  |
| В | 023 | What unites the atria of the fetus? |
| О |  | botallo duct |
| О |  | mitral valves |
| О |  | oval hole |
| О |  | semilunar valve |
|  |  |  |
| В | 024 | Who discovered the capillaries? |
| О |  | Frank and Starling |
| О |  | Harvey and Galen |
| О |  | Harvey and Muller |
| О |  | Malpighi and Levinguk |
|  |  |  |
| В | 025 | Pumping function of the heart is associated: |
| О |  | with myocardial contractility |
| О |  | with oxygen levels in tissues |
| О |  | with the movement of blood through the vessels |
| О |  | with valve operation |
|  |  |  |
| В | 026 | Heart valves provide: |
| О |  | increased pressure in the left ventricle |
| О |  | lift of blood from the underlying sections to the overlying |
| О |  | one-way blood flow |
| О |  | ventricular myocardial contraction |
|  |  |  |
| В | 027 | What is the end-diastolic pressure in the aorta? |
| О |  | 10-15 mmHg |
| О |  | 120-130 mmHg |
| О |  | 25-30 mmHg |
| О |  | 65-75 mmHg |
|  |  |  |
| В | 028 | What is the volume of blood in the ventricle before the starting of systole? |
| О |  | 10-15 ml |
| О |  | 140-180 ml |
| О |  | 20-30 ml |
| О |  | 70-80 ml |
|  |  |  |
| В | 029 | The minute volume of blood at rest is: |
| О |  | 1 - 2 l |
| О |  | 30-35 l |
| О |  | 4,5 - 5 l |
| О |  | 8 – 9 l |
|  |  |  |
| В | 030 | What does physiological properties the heart muscle have? |
| О |  | excitability, conductivity, refractoriness |
| О |  | only conductivity |
| О |  | only excitability |
| О |  | only refractoriness |
|  |  |  |
| В | 031 | What is the basis of the rhythm-forming function of the sino-atrial node? |
| О |  | ability to automation |
| О |  | sensitivity to humoral factors |
| О |  | sensitivity to nerve impulses |
| О |  | the presence of a conductive system |
|  |  |  |
| В | 032 | Where is the sinoatrial node located? |
| О |  | interatrial septum |
| О |  | interventricular septum |
| О |  | myocardium of the left atrium |
| О |  | the mouth of the vena cava and myocardium of the right atrium |
|  |  |  |
| В | 033 | What is the composition of the sinoatrial node? |
| О |  | cells - true pacemakers and contractile myocardial cells |
| О |  | cells - true pacemakers and latent pacemakers |
| О |  | cells - true pacemakers and purkinin-like cells |
| О |  | cells - true pacemakers, latent pacemakers, purkinin-like cells |
|  |  |  |
| В | 034 | What cells of the sinoatrial node have maximum automation? |
| О |  | latent pacemakers |
| О |  | Purkinje-like cells |
| О |  | true pacemakers |
| О |  | true pacemakers and latent pacemakers |
|  |  |  |
| В | 035 | What are the morphological features cells of sinoatrial node? |
| О |  | a small number of myofibrils and a large number of mitochondria |
| О |  | large cluster of glycogen clumps, large core |
| О |  | small amount of intracellular organelles; Golgi apparatus absent |
| О |  | small number of mitochondria and the core of small diameter |
|  |  |  |
| В | 036 | The mechanisms of intra cluster synchronization of pacemaker cells are mainly realizeit by: |
| О |  | all components of the insert disk |
| О |  | desmos |
| О |  | fascia Merger |
| О |  | nexus |
|  |  |  |
| В | 037 | he main theory of automation is : |
| О |  | ion - membrane |
| О |  | myogenic |
| О |  | neurogenic |
| О |  | neurogenic - myogenic |
|  |  |  |
| В | 038 | Where are the cells - true pacemakers located? |
| О |  | along the periphery of the sinoatrial node |
| О |  | closer to the vena cava |
| О |  | in the central zone of the sinoatrial node |
| О |  | scattered across all zones |
|  |  |  |
| В | 039 | The most energy intensive are: |
| О |  | cells - Latent Pacemakers |
| О |  | Purkinh-like cells |
| О |  | the cells are true pacemakers |
| О |  | true and latent pacemakers |
|  |  |  |
| В | 040 | How many cells are localized in one cluster? |
| О |  | 100 cells |
| О |  | 1000 cells |
| О |  | 500 cells |
| О |  | 5000 cells |
|  |  |  |
| В | 041 | Who and when accurately determined the localization of the sinoatrial node of the heart? |
| О |  | Blocker in 1980 |
| О |  | I.P. Pavlov in 1887 |
| О |  | Keith Flack in 1907 |
| О |  | Weber Brothers in 1845 |
|  |  |  |
| В | 042 | What does phases the action potential of pacemaker cells include? |
| О |  | depolarization, repolarization |
| О |  | rapid depolarization, repolarization |
| О |  | slow diastolic depolarization, fast depolarization, repolarization |
| О |  | slow diastolic depolarization, repolarization |
|  |  |  |
| В | 043 | Which cells have the maximum rate of slow diastolic depolarization? |
| О |  | cells - latent pacemakers |
| О |  | cells are true pacemakers |
| О |  | Purkinje-like cells |
| О |  | Purkinje-like cells and latent pacemakers |
|  |  |  |
| В | 044 | The maximum amplitude of the action potential is possessed by: |
| О |  | cells - latent pacemakers |
| О |  | myocardial contractile cells |
| О |  | Purkinje cells |
| О |  | the cells are true pacemakers |
|  |  |  |
| В | 045 | The duration of slow diastolic depolarization is maximum into: |
| О |  | cells - latent pacemakers |
| О |  | cells are real pacemakers |
| О |  | myocardial contractile cells |
| О |  | Purkinje cells |
|  |  |  |
| В | 046 | The appearance of the P wave on the ECG is associated with: |
| О |  | atrial excitement |
| О |  | conduction of excitement from the atria to the ventricles |
| О |  | electric systole of the heart |
| О |  | ventricular excitement |
|  |  |  |
| В | 047 | The appearance of the PQ interval on the ECG is associated with: |
| О |  | atria excitement |
| О |  | conduction of excitement from the atria to the ventricles |
| О |  | electric systole of the heart |
| О |  | ventricular excitement |
|  |  |  |
| В | 048 | What reflects the ST segment on the ECG? |
| О |  | electric systole of the heart |
| О |  | incomplete ventricular excitement |
| О |  | lack of potential difference in the ventricular myocardium |
| О |  | the disappearance of excitation in the ventricles |
|  |  |  |
| В | 049 | The first heart tone occurs: |
| О |  | at the beginning of asynchronous ventricular contraction |
| О |  | at the beginning of isometric contraction of the ventricles of the heart |
| О |  | at the beginning of isometric ventricular relaxation |
| О |  | at the beginning of protodiastole |
|  |  |  |
| В | 050 | The occurrence of a fourth heart tone is associated with: |
| О |  | blood flow into the ventricles during atrial systole |
| О |  | rapid filling of ventricles with blood |
| О |  | slow filling of the ventricles with blood |
| О |  | ventricular contraction |
|  |  |  |
| В | 051 | What determines the dicrotic rise in the sphygmogram? |
| О |  | atrial contraction during their systole |
| О |  | blood reflection from a closed aortic valve |
| О |  | strike of blood on the aortic valve |
| О |  | ventricular relaxation during their diastole |
|  |  |  |
| В | 052 | What is causes of the wave 3rd order of the blood pressure ? |
| О |  | breathing |
| О |  | heartbeat |
| О |  | rhythmic changes in the excitation of the respiratory center |
| О |  | rhythmic changes in the tone of the vasomotor center |
|  |  |  |
| В | 053 | What ECG waves correspond to the first tone on the phonocardiogram? |
| О |  | P wave |
| О |  | PQ segment |
| О |  | QRS complex |
| О |  | ST segment |
|  |  |  |
| В | 054 | What ECG components correspond to the second tone on the phonocardiogram? |
| О |  | beginning of the TR segment |
| О |  | PQ segment |
| О |  | QRS complex |
| О |  | T wave |
|  |  |  |
| В | 055 | What is causes the R wave on the ECG? |
| О |  | conducting atrial arousal |
| О |  | conducting excitement from the atria to the ventricles |
| О |  | electric systole of the heart |
| О |  | ventricular excitation |
|  |  |  |
| В | 056 | What is the cause for the QT interval on the ECG? |
| О |  | atrial stimulation |
| О |  | conduction of excitation from the atria to the ventricles |
| О |  | electric systole of the heart |
| О |  | ventricular excitetion |
|  |  |  |
| В | 057 | When does a second heart tone occur? |
| О |  | at the beginning of filling the ventricles with blood |
| О |  | at the end of isometric relaxation of ventricular |
| О |  | at the end of protodiastoles, before the starting of isometric relaxation ventricular |
| О |  | when blood exits from ventricles |
|  |  |  |
| В | 058 | What is causes the TP segment on the ECG? |
| О |  | atrial excitation |
| О |  | conduction of excitation from the atria to the ventricles |
| О |  | electric diastole of heart |
| О |  | ventricular excitation |
|  |  |  |
| В | 059 | What is the cause of the appearance of the T wave on the ECG? |
| О |  | conduction of excitation from the atria to the ventricles |
| О |  | excitation of the apex of the heart. |
| О |  | excitation of the ventricular |
| О |  | the final of excitation in the ventricles |
|  |  |  |
| В | 060 | What is the cause of Q wave on ECG? |
| О |  | electric systole of the heart |
| О |  | excitation from the atria to the ventricles |
| О |  | excitation of the atrial |
| О |  | excitation of the papillary muscle and interventricular septum |
|  |  |  |
| В | 061 | What is causes synchronous cardiomyocyte contraction? |
| О |  | intercellular interaction |
| О |  | intracardiac reflex |
| О |  | intracellular regulation |
| О |  | sympathetic nervous system |
|  |  |  |
| В | 062 | What is the reason for the increase in myocardial contraction with an increase in the initial length of muscle fibers? |
| О |  | intercellular interaction |
| О |  | intracardiac reflex |
| О |  | intracellular regulation |
| О |  | the influence of the sympathetic nervous system |
|  |  |  |
| В | 063 | What is the bathmotropic effect of the heart? |
| О |  | change in the strength of myocardial contractions |
| О |  | heart rate change |
| О |  | myocardial conduction change |
| О |  | myocardial excitability change |
|  |  |  |
| В | 064 | What is the inotropic effect of the heart? |
| О |  | contraction force change |
| О |  | heart rate change |
| О |  | myocardial conduction change |
| О |  | myocardial excitability change |
|  |  |  |
| В | 065 | What is the dromotropic effect of the heart? |
| О |  | contraction force change |
| О |  | heart rate change |
| О |  | myocardial conduction change |
| О |  | myocardial excitability change |
|  |  |  |
| В | 066 | What is the chronotropic effect of the heart? |
| О |  | contraction force change |
| О |  | heart rate change |
| О |  | myocardial conduction change |
| О |  | myocardial excitability change |
|  |  |  |
| В | 067 | What is effects of sympathetic nervous system on heart function? |
| О |  | Negative inotropic, negative chronotropic |
| О |  | Negative inotropic, positive chronotropic |
| О |  | Positive inotropic, negative chronotropic |
| О |  | Positive inotropic, positive chronotropic |
|  |  |  |
| В | 068 | What is name of neurotransmitter that the sympathetic nervous system uses to affect the heart? |
| О |  | acetylcholine |
| О |  | glycine |
| О |  | norepinephrine |
| О |  | serotonin |
|  |  |  |
| В | 069 | What is name of neurotransmitter that the parasympathetic nervous system uses to affect the heart? |
| О |  | acetylcholine |
| О |  | epinephrine |
| О |  | norepinephrine |
| О |  | serotonin |
|  |  |  |
| В | 070 | Where is the center of sympathetic innervation of the heart? |
| О |  | cervical segments of the spinal cord |
| О |  | core of the brain |
| О |  | medulla oblongata |
| О |  | upper thoracic segments of spinal cord |
|  |  |  |
| В | 071 | Where is the center of parasympathetic innervation of the heart? |
| О |  | cervical segments of the spinal cord |
| О |  | core of the brain |
| О |  | medulla oblongata |
| О |  | upper thoracic segments of spinal cord |
|  |  |  |
| В | 072 | What is the homeometric mechanism of regulating a function of the heart? |
| О |  | change in heart rate with a change in pressure in the arterial system |
| О |  | change in heart rate with a change in the initial length of muscle fibers |
| О |  | change in the force of contraction of the heart with a change in pressure in the arterial system |
| О |  | change in the force of contraction of the heart with a change in the initial length of muscle fibers |
|  |  |  |
| В | 073 | What is the heterometric mechanism of regulating a function of the heart? |
| О |  | change in heart rate with a change in pressure in the arterial system |
| О |  | change in heart rate with a change in the initial length of muscle fibers |
| О |  | change in the force of contraction of the heart with a change in the initial length of muscle fibers |
| О |  | change in the force of contraction of the heart with a change in pressure in the arterial system |
|  |  |  |
| В | 074 | The Danini-Ashner reflex is: |
| О |  | change in the force of contraction of the heart with a change in pressure in the arterial system |
| О |  | changes in the force of contraction of the heart with a change in the initial length of muscle fibers |
| О |  | decrease in heart rate after pressure on the eyeballs |
| О |  | increased heart rate after pressure on the eyeballs |
|  |  |  |
| В | 075 | What is the Anrep effect? |
| О |  | change in the force of contraction of the heart with a change in pressure in the arterial system |
| О |  | changes in the force of contractions of the heart with a change in the initial length of muscle fibers |
| О |  | decrease in heart rate after pressure on the eyeballs |
| О |  | increased heart rate after pressure on the eyeballs |
|  |  |  |
| В | 076 | What parts of the heart do the parasympathetic system have a predominant effect on? |
| О |  | conducting system, right atrium |
| О |  | evenly distributed throughout the heart |
| О |  | right and left atrium |
| О |  | ventricles of the heart |
|  |  |  |
| В | 077 | What systems act on the heart like catecholamines? |
| О |  | parasympathetic nervous system |
| О |  | renin-angiotensin system |
| О |  | somatic nervous system |
| О |  | sympathetic nervous system |
|  |  |  |
| В | 078 | What is the effect of thyroxine on the heart? |
| О |  | increase of contractility and inhibition of excitability |
| О |  | increase of excitability and contractility |
| О |  | inhibition of contractility and increased excitability |
| О |  | inhibition of heart activity |
|  |  |  |
| В | 079 | What effect does the parasympathetic nervous system have? |
| О |  | does not affect heart function |
| О |  | slows down rate of the heart |
| О |  | speeds up the work of the heart |
| О |  | stabilizes work of the heart |
|  |  |  |
| В | 080 | What is the effect of adrenaline? |
| О |  | does not affect cardiac activity |
| О |  | slows heart's rate |
| О |  | strengthens and accelerates cardiac activity |
| О |  | weakens heart activity |
|  |  |  |
| В | 081 | What is affects on the power of heart contraction? |
| О |  | amplitude of action potential |
| О |  | depolarization duration |
| О |  | heart rate |
| О |  | velocity passe of excitation on myocardial |
|  |  |  |
| В | 082 | What effect do calcium ions have on an myocardium? |
| О |  | a decrease in the rate of excitation |
| О |  | cardiac arrest in diastole |
| О |  | heart rate reduction |
| О |  | increased heart rate |
|  |  |  |
| В | 083 | What is the effect of acetylcholine on heart pacemaker cells? |
| О |  | activation of oxidative phosphorylation |
| О |  | activation of potassium channels, hyperpolarization of the membrane of cardiomyocytes |
| О |  | discovery of calcium channels |
| О |  | opening of sodium channels and an increase in the rate of slow diastolic depolarization |
|  |  |  |
| В | 084 | What substance inhibits the activity of the heart? |
| О |  | adrenaline |
| О |  | calcium ions |
| О |  | potassium ions |
| О |  | vasopressin |
|  |  |  |
| В | 085 | What is ions increase myocardial contractility? |
| О |  | calcium ions |
| О |  | chlorine ions |
| О |  | potassium ions |
| О |  | sodium ions |
|  |  |  |
| В | 086 | What effect does the vagus have on the heart? |
| О |  | negative inotropic, chronotropic effects, positive batmotropic, dromotropic effects |
| О |  | negative inotropic, chronotropic, batmotropic, dromotropic effects |
| О |  | positive inotropic, chronotropic effects, negative batmotropic, dromotropic effects |
| О |  | positive inotropic, chronotropic, batmotropic, dromotropic effects |
|  |  |  |
| В | 087 | How does the pulse rate change during Goering's reflex? |
| О |  | slowdown |
| О |  | does not change |
| О |  | acceleration on 5-10 sec |
| О |  | acceleration on 10-15 sec |
|  |  |  |
| В | 088 | How is the Prevel test performed? |
| О |  | make physical exercise |
| О |  | transition from a prone position to a standing |
| О |  | transition from sitting position to lying |
| О |  | transition from standing position to lying |
|  |  |  |
| В | 089 | What scientists have discovered the effect of sympathetic nerve fibers on the heart? |
| О |  | E. Starling and O. Levy |
| О |  | I. Zion and I.P. Pavlov |
| О |  | I.P. Pavlov and O. Frank |
| О |  | O. Frank and E. Starling |
|  |  |  |
| В | 090 | What is the effect of iodine-containing thyroid hormones on the heart? |
| О |  | do not affect the frequency |
| О |  | formation of bradycardia |
| О |  | formation of extrasystoles |
| О |  | formation tachycardia |
|  |  |  |
| В | 091 | What part of the circulatory system creates the greatest resistance to blood flow? |
| О |  | aorta |
| О |  | arteries |
| О |  | capillaries |
| О |  | veins |
|  |  |  |
| В | 092 | What part of the circulatory system has the smallest linear blood flow velocity? |
| О |  | aorta |
| О |  | arteries |
| О |  | capillaries |
| О |  | veins |
|  |  |  |
| В | 093 | Which section of the circulatory system has the highest volumetric velocity of blood flow? |
| О |  | aorta |
| О |  | capillaries |
| О |  | the same in all parts of the circulatory system |
| О |  | vena cava |
|  |  |  |
| В | 094 | How does the linear blood flow velocity in the circulatory system change? |
| О |  | decreases from capillaries to the vena cava |
| О |  | decreases from the aorta to the capillaries |
| О |  | increases from aorta to the capillaries |
| О |  | the same in all parts of the circulatory system |
|  |  |  |
| В | 095 | How does the volumetric blood flow velocity depend on other hemodynamic parameters? |
| О |  | directly proportional to blood viscosity |
| О |  | inversely proportional to blood pressure |
| О |  | inversely proportional to vascular resistance |
| О |  | inversely proportional to vessel diameter |
|  |  |  |
| В | 096 | How does lymph formation change with a decrease in blood plasma oncotic pressure? |
| О |  | decreases |
| О |  | decreases then increases |
| О |  | does not change |
| О |  | increases |
|  |  |  |
| В | 097 | How does coronary blood flow change during ventricular systole? |
| О |  | decreases |
| О |  | does not change |
| О |  | increases |
| О |  | increases then decreases |
|  |  |  |
| В | 098 | What factors increase systolic blood pressure? |
| О |  | decrease in circulating blood volume |
| О |  | heart contraction power |
| О |  | high elasticity of blood vessels |
| О |  | low vascular resistance |
|  |  |  |
| В | 099 | When does blood pressure become maximum? |
| О |  | during isometric contraction of the ventricles |
| О |  | during protodiastole |
| О |  | during the rapid expulsion of blood from the ventricles |
| О |  | during the slow expulsion of blood from the ventricles |
|  |  |  |
| В | 100 | What factors increase diastolic blood pressure? |
| О |  | decrease in circulating blood volume |
| О |  | heart contraction power |
| О |  | high elasticity of blood vessels |
| О |  | low vascular resistance |
|  |  |  |
| В | 101 | What factors increase peripheral vascular resistance? |
| О |  | high elasticity of the vascular wall |
| О |  | increase in the length of the vascular bed |
| О |  | lowering blood viscosity |
| О |  | vasodilation |
|  |  |  |
| В | 102 | What factors create the driving force of blood? |
| О |  | blood viscosity |
| О |  | circulating blood volume |
| О |  | heart contraction |
| О |  | vascular resistance |
|  |  |  |
| В | 103 | What is pulse pressure? |
| О |  | difference between systolic and diastolic pressure |
| О |  | minimum blood pressure |
| О |  | pressure which measured on pulsating vessels |
| О |  | sum of systolic and diastolic blood pressure |
|  |  |  |
| В | 104 | What is auscultatory method of measuring pressure is called? |
| О |  | Hels method |
| О |  | Korotkoff method |
| О |  | Ludwig method |
| О |  | Riva-Rocci method |
|  |  |  |
| В | 105 | What factors decrease systolic blood pressure? |
| О |  | high elasticity of blood vessels |
| О |  | high heart contraction power |
| О |  | high vascular resistance |
| О |  | increase in circulating blood volume |
|  |  |  |
| В | 106 | What is the Parine reflex? |
| О |  | decreased pulmonary vascular resistance, bradycardia, blood supply to veins, enlarged spleen |
| О |  | increased pressure in the vessels of a large circle of blood circulation, their blood supply |
| О |  | tachycardia, blood supply to the veins and enlarged spleen |
| О |  | tachycardia, increased pressure in the vessels of a large circle of blood circulation |
|  |  |  |
| В | 107 | What factors provide the movement of blood through the venous vessels? |
| О |  | blood viscosity |
| О |  | myocardial contraction, vascular wall elasticity |
| О |  | negative chest pressure, venous valves, skeletal muscle function |
| О |  | peripheral resistance |
|  |  |  |
| В | 108 | What vessels form the movement of blood through organs? |
| О |  | capacitive vessels |
| О |  | exchange vessels |
| О |  | sphincter vessels |
| О |  | vessels of resistance |
|  |  |  |
| В | 109 | What position should the patient be in when measuring pressure? |
| О |  | irrelevant |
| О |  | lying on the right side |
| О |  | lying on your back |
| О |  | lying on your left side |
|  |  |  |
| В | 110 | In what part of the blood vessel is the maximum velocity of blood flow? |
| О |  | in the center of a blood vessel |
| О |  | into vascular bifurcations |
| О |  | near the walls of a blood vessel |
| О |  | same everywhere |
|  |  |  |
| В | 111 | What causes noise when measuring blood pressure according to the Korotkoff method?t |
| О |  | laminar blood flow |
| О |  | pulsating blood movemen |
| О |  | retrograde blood flow |
| О |  | turbulent blood flow |
|  |  |  |
| В | 112 | How does blood pressure change with increase in blood viscosity? |
| О |  | systolic and diastolic blood pressure decreases |
| О |  | systolic and diastolic blood pressure increases |
| О |  | systolic pressure decreases, diastolic pressure increases |
| О |  | systolic pressure increases, diastolic pressure decreases |
|  |  |  |
| В | 113 | How does blood pressure change with an increase regidity in the vascular wall? |
| О |  | increased systolic and diastolic blood pressure |
| О |  | systolic and diastolic blood pressure decreases |
| О |  | systolic pressure decreases, diastolic pressure increases |
| О |  | systolic pressure increases, diastolic pressure decreases |
|  |  |  |
| В | 114 | How do hemodynamic parameters change with a decrease in the volume of circulating blood? |
| О |  | systolic blood pressure and heart rate decreases |
| О |  | systolic pressure and heart rate increase increases |
| О |  | systolic pressure decreases, heart rate increases |
| О |  | systolic pressure increases, heart rate decreases |
|  |  |  |
| В | 115 | Which vessels contain the most blood? |
| О |  | arteries |
| О |  | capillaries |
| О |  | shunt vessels |
| О |  | veins |
|  |  |  |
| В | 116 | What vessels provide the metabolism between blood and tissues? |
| О |  | arteries |
| О |  | capillaries |
| О |  | shunt vessels |
| О |  | veins |
|  |  |  |
| В | 117 | What vessels provide blood movement bypassing the capillaries? |
| О |  | coronary vessels |
| О |  | lymphatic vessels |
| О |  | shunt vessels |
| О |  | spleen vessels |
|  |  |  |
| В | 118 | Which hand should measure pressure on? |
| О |  | irrelevant |
| О |  | on both |
| О |  | on the left |
| О |  | on the right |
|  |  |  |
| В | 119 | What forms first-order waves with direct registration of blood pressure? |
| О |  | breathing movements |
| О |  | change in body position in space |
| О |  | change in the activity of the hemodynamic center |
| О |  | systole and diastole |
|  |  |  |
| В | 120 | What forms second-order waves during direct registration of blood pressure? |
| О |  | breathing movements |
| О |  | change in body position in space |
| О |  | change in the activity of the hemodynamic center |
| О |  | systole and diastole |
|  |  |  |
| В | 121 | What vessels have baroreceptors involved in the regulation of blood circulation? |
| О |  | a venules |
| О |  | aorta and common carotid artery |
| О |  | capillaries |
| О |  | vena cava |
|  |  |  |
| В | 122 | What stimuli do baroreceptors directly respond to? |
| О |  | atmospheric pressure |
| О |  | blood pressure |
| О |  | chest pressure |
| О |  | vascular wall stretching |
|  |  |  |
| В | 123 | In what blood pressure range do baroreceptors function? |
| О |  | 180-250 mmHg |
| О |  | 20 - 80 mmHg |
| О |  | 60-200 mmHg |
| О |  | 80-120 mmHg |
|  |  |  |
| В | 124 | What changes occur in the body during irritation of baroreceptors? |
| О |  | decreased heart function, decreased blood pressure |
| О |  | decreased heart function, increased blood pressure |
| О |  | increased heart function, lowering blood pressure |
| О |  | increased heart function, rising blood pressure |
|  |  |  |
| В | 125 | What sections of the hemodynamic center are affected by baroreceptors? |
| О |  | center of the sympathetic nervous system |
| О |  | depressive center of the medulla oblongata |
| О |  | hypothalamus |
| О |  | medulla oblongata pressure center |
|  |  |  |
| В | 126 | Where are the chemoreceptors involved in the regulation of blood circulation localized? |
| О |  | aortic arch |
| О |  | capillaries |
| О |  | carotid bodies |
| О |  | veins |
|  |  |  |
| В | 127 | What is an irritant for vascular chemoreceptors? |
| О |  | acetylcholine |
| О |  | adrenalin |
| О |  | carbon dioxide and blood pH |
| О |  | serotonin |
|  |  |  |
| В | 128 | What sections of the hemodynamic center are affected by chemoreceptors? |
| О |  | center of the sympathetic nervous system |
| О |  | depressive center of the medulla oblongata |
| О |  | hypothalamus |
| О |  | medulla oblongata pressure center |
|  |  |  |
| В | 129 | What changes occur in the body during irritation of chemoreceptors? |
| О |  | decreased heart function, decreased blood pressure |
| О |  | decreased heart function, increased blood pressure |
| О |  | increased heart function, lowering blood pressure |
| О |  | increased heart function, rising blood pressure |
|  |  |  |
| В | 130 | What changes occur in the body with irritation of proprioreceptors of skeletal muscle? |
| О |  | decreased heart function, decreased blood pressure |
| О |  | decreased heart function, increased blood pressure |
| О |  | increased heart function, increased blood pressure |
| О |  | increased heart function, lowering blood pressure |
|  |  |  |
| В | 131 | What changes occur in the body with irritation of the thermal receptors of the skin? |
| О |  | decreased heart function, decreased blood pressure |
| О |  | decreased heart function, increased blood pressure |
| О |  | increased heart function, increased blood pressure |
| О |  | increased heart function, lowering blood pressure |
|  |  |  |
| В | 132 | What is segmental level of blood circulation regulation? |
| О |  | cerebral cortex |
| О |  | hemodynamic center of the medulla oblongata |
| О |  | hypothalamus |
| О |  | sympathetic and intra organ nervous system |
|  |  |  |
| В | 133 | What is the suprasegmental level of the hemodynamic center? |
| О |  | hypothalamus and cerebral cortex |
| О |  | intraorgan nervous system |
| О |  | parasympathetic nervous system |
| О |  | sympathetic nervous system |
|  |  |  |
| В | 134 | What changes does an orthostatic test cause? |
| О |  | systolic pressure decreases, the pulse increases |
| О |  | systolic pressure decreases, the pulse is reduced |
| О |  | systolic pressure rises, heart rate quickens |
| О |  | systolic pressure rises, pulse slows |
|  |  |  |
| В | 135 | What changes does the clinoortostatic test cause? |
| О |  | systolic pressure decreases, pulse decreases |
| О |  | systolic pressure decreases, pulse increases |
| О |  | systolic pressure rises, palpitations increase |
| О |  | systolic pressure rises, pulse slows down |
|  |  |  |
| В | 136 | What changes does the Martine test cause? |
| О |  | systolic pressure decreases, pulse decreases |
| О |  | systolic pressure decreases, pulse slows down |
| О |  | systolic pressure rises, palpitations increase |
| О |  | systolic pressure rises, pulse increases |
|  |  |  |
| В | 137 | What is the main mechanism for increasing blood flow in working muscles? |
| О |  | humoral |
| О |  | myogenic heterometric |
| О |  | myogenic homeometric |
| О |  | nervous |
|  |  |  |
| В | 138 | What is the activator of the renin-angiotensin-aldosterone system? |
| О |  | emotional stress |
| О |  | high blood pressure |
| О |  | lowering blood pressure |
| О |  | muscle work |
|  |  |  |
| В | 139 | How is the work of baroreceptors blocked during muscle work? |
| О |  | conditional braking occurs |
| О |  | glycine production increases |
| О |  | increases the elasticity of the vascular wall |
| О |  | vascular rigidity occurs |
|  |  |  |
| В | 140 | At what maximum heart rate does physical performance remain? |
| О |  | 120 per minute |
| О |  | 170 per minute |
| О |  | 220 per minute |
| О |  | 65 per minute |
|  |  |  |
| В | 141 | What is the effect of antidiuretic hormone on blood vessels? |
| О |  | has no influence |
| О |  | increases tone |
| О |  | relaxes all blood vessels |
| О |  | relaxes only skin vessels |
|  |  |  |
| В | 142 | What is the effect of nitric oxide on blood vessels? |
| О |  | has no influence |
| О |  | improves tone |
| О |  | relaxes all blood vessels |
| О |  | relaxes only skin vessels |
|  |  |  |
| В | 143 | What effect does the sympathetic nervous system have on vascular tone? |
| О |  | constricts the vessels of the brain |
| О |  | dilates coronary vessels |
| О |  | dilates the vessels of the skin |
| О |  | expands the vessels of the digestive tract |
|  |  |  |
| В | 144 | What effect does the parasympathetic nervous system have on vascular tone? |
| О |  | constricts the vessels of the brain |
| О |  | dilates coronary vessels |
| О |  | dilates the vessels of the pelvic organs |
| О |  | has no direct effect on blood vessels |
|  |  |  |
| В | 145 | What is the myogenic homeometric mechanism for regulating vascular tone? |
| О |  | does not affect blood vessels |
| О |  | increased vascular tone under the influence of metabolites |
| О |  | relaxation of blood vessels under the action of biologically active substances |
| О |  | vascular relaxation under the influence of metabolites |
|  |  |  |
| В | 146 | What adrenergic receptors are located in the vessels? |
| О |  | alpha 1, beta 2 |
| О |  | alpha 2 |
| О |  | beta 1 |
| О |  | do not occur in vessels |
|  |  |  |
| В | 147 | What adrenergic receptors are located on cardiomyocytes? |
| О |  | alpha 1 and beta 1 |
| О |  | alpha 2 |
| О |  | beta 2 |
| О |  | do not meet in the heart |
|  |  |  |
| В | 148 | What is the interaction between the pressor and depressor zones? |
| О |  | depressive zone inhibits the pressor zone |
| О |  | pressor zone inhibits depressor zone |
| О |  | reciprocal interaction is established between them |
| О |  | there is no direct connection between them |
|  |  |  |
| В | 149 | What is the significance of the cerebral cortex in the regulation of the cardiovascular system? |
| О |  | acts with use conditioned reflexes |
| О |  | acts with use unconditioned reflexes |
| О |  | no effect |
| О |  | regulates indirectly through the humoral system |
|  |  |  |
| В | 150 | What is the purpose of a functional circulatory system? |
| О |  | maintaining a constant blood pressure |
| О |  | maintaining a linear blood flow velocity |
| О |  | maintaining adequate blood flow |
| О |  | preservation of vascular resistance |
|  |  |  |