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

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| --- | --- | --- |
| **Вид** | **Код** | **Текст названия трудовой функции/ вопроса задания/ вариантов ответа** |
| Ф |  | **Физиология системы крови** |
|  |  |  |
| В | 001 | The composition of the internal environment includes the following fluids: |
| О |  | bile |
| О |  | blood, lymph, intercellular fluid |
| О |  | digestive juices |
| О |  | sweat |
|  |  |  |
| В | 002 | The blood system consists of: |
| О |  | all listed options |
| О |  | hematopoietic and hemorrhage organs |
| О |  | neurohumoral regulation of blood parameters |
| О |  | peripheral and deposited blood |
|  |  |  |
| В | 003 | Blood function: |
| О |  | all listed options |
| О |  | protective and excretory |
| О |  | regulation of pH and body temperature |
| О |  | transport of gases (O2, CO2) and nutrients |
|  |  |  |
| В | 004 | Plastic blood constants: |
| О |  | all listed options |
| О |  | ESR, blood viscosity, blood density |
| О |  | the number of cells elements, the content of hemoglobin |
| О |  | they can deviate in a relatively wide range without changing the vital functions of the cells. |
|  |  |  |
| В | 005 | Hard blood constants: |
| О |  | all listed options |
| О |  | blood pH |
| О |  | fluctuate in small ranges, because significant deviation leads to disruption of cell activity |
| О |  | osmotic blood pressure |
|  |  |  |
| В | 006 | Osmotic blood pressure is a force: |
| О |  | blood flow |
| О |  | interactions of cells elements with each other |
| О |  | providing movement of water molecules through a semipermeable membrane |
| О |  | the interaction of blood cells with the wall of blood vessels |
|  |  |  |
| В | 007 | The erythrocyte sedimentation rate depends on: |
| О |  | blood types |
| О |  | plasma protein composition |
| О |  | platelet size and number |
| О |  | white blood cell count |
|  |  |  |
| В | 008 | What is the name of the increased number of red blood cells in the blood? |
| О |  | erythrocytosis |
| О |  | erythron |
| О |  | erythropenia |
| О |  | erythropoietin |
|  |  |  |
| В | 009 | Normal number blood red blood cells in men / women: |
| О |  | 1-10mm / hour; 2-15mm / hour |
| О |  | 140 - 160 g / l; 120 - 140g / l |
| О |  | 4 - 9 × 109 in l |
| О |  | 4.5 - 5.0 × 1012 in l / 3.8 - 4.5 × 1012 in l |
|  |  |  |
| В | 010 | The main stimulus of erythropoiesis is: |
| О |  | erythrocytosis |
| О |  | erythron |
| О |  | hypocapnia |
| О |  | hypoxia |
|  |  |  |
| В | 011 | The number of red blood cells in the blood is affected by: |
| О |  | age |
| О |  | all listed options |
| О |  | catecholamines (adrenaline, norepinephrine) |
| О |  | sex hormones |
|  |  |  |
| В | 012 | Hemolysis is called: |
| О |  | erythrocyte membrane destruction process and hemoglobin release into blood plasma |
| О |  | increase of red blood cell |
| О |  | leukocyte destruction |
| О |  | thrombus formation |
|  |  |  |
| В | 013 | What type of hemoglobin does not exist in humans? |
| О |  | adult |
| О |  | basal |
| О |  | embryonic |
| О |  | fetal |
|  |  |  |
| В | 014 | The physiological compounds of hemoglobin include everything except: |
| О |  | carbhemoglobin |
| О |  | deoxyhemoglobin |
| О |  | methemoglobin |
| О |  | oxyhemoglobin |
|  |  |  |
| В | 015 | The color indicator of blood is called: |
| О |  | relative saturation of red blood cells with hemoglobin |
| О |  | ratio of plasma volume to blood volume |
| О |  | erythrocyte volume to blood volume ratio in% |
| О |  | erythrocyte to reticulocyte ratio |
|  |  |  |
| В | 016 | Depending on the type of granules, white blood cells are divided into: |
| О |  | ovoid and round |
| О |  | oval and shapeless |
| О |  | large and small |
| О |  | granulocytes and agranulocytes |
|  |  |  |
| В | 017 | What is understood by leukocyte formula? |
| О |  | white blood cell to red blood cell percentage |
| О |  | the percentage of individual forms of white blood cells |
| О |  | the percentage of basophils and monocytes |
| О |  | percentage of all blood cells |
|  |  |  |
| В | 018 | Nonspecific immunity is: |
| О |  | the ability to recognize and respond to individual antigens, lymphoid cells are involved in the reaction, there is immunological memory |
| О |  | the ability of myeloid cells to identify and neutralize a variety of pathogens, not having strict specificity for antigens, not having a memory of the primary contact with a foreign agent. |
| О |  | immunity develops with the introduction of ready-made antibodies in the form of serum into the body or their transfer to a newborn with colostrum of the mother or intrauterine method |
| О |  | immunity arising after a previous illness or after the introduction of a vaccine |
|  |  |  |
| В | 019 | Specific immunity is: |
| О |  | the ability to recognize and respond to individual antigens is carried out mainly by lymphocytes, there is an immunological memory |
| О |  | the ability of myeloid cells to identify and neutralize various pathogens that do not have strict specificity for antigens and do not have a memory of primary contact with a foreign agent |
| О |  | skin protective abilities |
| О |  | protective properties of saliva |
|  |  |  |
| В | 020 | Humoral mechanisms of nonspecific protection are represented by such factors as: |
| О |  | T- and B-lymphocytes |
| О |  | neutrophils, basophils, eosinophils |
| О |  | fibronectin, lysozyme, interferons, complement system, etc. |
| О |  | adrenaline, norepinephrine, serotonin |
|  |  |  |
| В | 021 | Cellular non-specific immunity is carried out: |
| О |  | lysozyme |
| О |  | interferon |
| О |  | granulocytes (eosinophils, basophils, neutrophils) |
| О |  | complement system |
|  |  |  |
| В | 022 | The main function of neutrophils: |
| О |  | phagocytosis of tissue debris and the destruction of opsonized microorganisms |
| О |  | migration and degranulation |
| О |  | antiparasitic reaction |
| О |  | adhesion and chemotaxis |
|  |  |  |
| В | 023 | The main function of eosinophils and their normal content in%: |
| О |  | Phagocytosis / 25 - 30 |
| О |  | Inflammatory reaction / 4 - 9 |
| О |  | Antiparasitic reaction / 1 - 4 |
| О |  | Allergic reaction / 55 - 68 |
|  |  |  |
| В | 024 | The main function of basophils and their normal content in%: |
| О |  | phagocytosis / 4 - 9 |
| О |  | inflammatory reaction / 55 - 68 |
| О |  | antiparasitic reaction / 6 - 8 |
| О |  | allergic reaction / 0, 25 - 0, 75 |
|  |  |  |
| В | 025 | T cell function: |
| О |  | responsible for the development of cellular immunological reactions |
| О |  | provide humoral forms of the immune response |
| О |  | production of heparin, histamine, serotonin |
| О |  | participation in non-specific immunity |
|  |  |  |
| В | 026 | B-cell function: |
| О |  | provide humoral forms of specific immunity |
| О |  | provide cellular mechanisms of specific immunity |
| О |  | humoral nonspecific protection |
| О |  | cell Nonspecific Protection |
|  |  |  |
| В | 027 | The ABO system is an antigenic system mainly: |
| О |  | white blood cells |
| О |  | tissue cell |
| О |  | red blood cells |
| О |  | platelet count |
|  |  |  |
| В | 028 | Agglutinogens A, B are included in the following component of blood: |
| О |  | white blood cells |
| О |  | red blood cells |
| О |  | platelets |
| О |  | plasma |
|  |  |  |
| В | 029 | Agglutinins are included in the following component of blood: |
| О |  | white blood cells |
| О |  | red blood cells |
| О |  | platelets |
| О |  | plasma |
|  |  |  |
| В | 030 | Rhesus conflict occurs when: |
| О |  | single-group blood transfusion |
| О |  | repeated transfusion of Rh-positive blood to a recipient with Rh-negative blood |
| О |  | repeated transfusion of Rh-negative blood to a recipient with Rh-negative blood |
| О |  | ingroup blood transfusion |
|  |  |  |
| В | 031 | The aggregate state of the blood is: |
| О |  | the ability of blood to move |
| О |  | the ability of blood to be in a state of physiological dissolution, the ability to freely penetrate into all vessels of the microvasculature |
| О |  | blood plasma and cells ratio |
| О |  | ability to protect against foreign agents |
|  |  |  |
| В | 032 | Hemostasis is: |
| О |  | red blood cell destruction |
| О |  | erythrocyte sedimentation |
| О |  | constancy of the internal environment |
| О |  | bleeding stop |
|  |  |  |
| В | 033 | The trigger mechanism for hemostasis in a healthy person is: |
| О |  | vasospasm |
| О |  | vasodilation |
| О |  | vascular damage |
| О |  | emotional arousal |
|  |  |  |
| В | 034 | The main function of platelets is everything except: |
| О |  | vasoconstrictor |
| О |  | stopping bleeding from small vessels |
| О |  | gas blood transport |
| О |  | angiotrophic |
|  |  |  |
| В | 035 | Adhesion is called: |
| О |  | red blood cell adherence to the vessel wall |
| О |  | platelet clustering |
| О |  | gluing platelets to the site of damage |
| О |  | everything is wrong |
|  |  |  |
| В | 036 | Aggregation is: |
| О |  | the movement of white blood cells to the site of damage |
| О |  | platelet clustering |
| О |  | platelet adhesion to the site of damage |
| О |  | erythrocyte destruction |
|  |  |  |
| В | 037 | Vascular-platelet hemostasis includes the following processes: |
| О |  | the formation of prothrombinase, the formation of prothrombin - thrombin, from fibrinogen - fibrin, clot retraction |
| О |  | primary reflex vasospasm, secondary spasm under the influence of vasoconstrictors, platelet adhesion and aggregation, platelet plug formation |
| О |  | platelet adhesion, thrombin formation, plasmin formation |
| О |  | plasminogen formation, plasmin formation, fibrin cleavage |
|  |  |  |
| В | 038 | What are the phases of coagulation hemostasis: |
| О |  | reflex spasm of damaged vessels, platelet adhesion, reversible aggregation |
| О |  | prothrombinase formation, thrombin formation, fibrin formation |
| О |  | platelet adhesion, thrombin formation, plasmin formation |
| О |  | plasminogen formation, plasmin formation, fibrin cleavage |
|  |  |  |
| В | 039 | Cascade reaction: |
| О |  | sequential activation of coagulation factors |
| О |  | self-activation of coagulation factors |
| О |  | retrograde activation |
| О |  | coagulation inactivation |
|  |  |  |
| В | 040 | The first stage of coagulation hemostasis ends with the formation of: |
| О |  | thrombin |
| О |  | prothrombinase |
| О |  | plasmin |
| О |  | fibrin |
|  |  |  |
| В | 041 | Bleeding duration by test Duke is: |
| О |  | 5 - 7 minutes |
| О |  | 30 - 50 seconds |
| О |  | 3 to 6 minutes |
| О |  | 2 to 4 minutes |
|  |  |  |
| В | 042 | Clot retraction is: |
| О |  | thrombus size increase |
| О |  | thrombus seal |
| О |  | thrombus loosening |
| О |  | blood clot displacement |
|  |  |  |
| В | 043 | What enzyme breaks down fibrin strands? |
| О |  | thrombin |
| О |  | prothrombinase |
| О |  | plasmin |
| О |  | fibrinogen |
|  |  |  |
| В | 044 | The coagulation system plays an important role in: |
| О |  | restoration of the lumen of the vessel after damage |
| О |  | maintaining the balance of blood cells |
| О |  | maintaining blood in a liquid state |
| О |  | for fibrinolysis |
|  |  |  |
| В | 045 | Natural anticoagulants include: |
| О |  | sodium Citrate, Oxalates |
| О |  | heparin and antithrombin |
| О |  | calcium Chloride and Potassium |
| О |  | adrenaline and norepinephrine |
|  |  |  |
| В | 046 | Phases of vascular - platelet hemostasis: |
| О |  | aggregation, thrombus formation, fibrinolysis |
| О |  | adhesion, thrombus formation, fibrinolysis |
| О |  | adhesion, aggregation, thrombus formation |
| О |  | adhesion, aggregation, fibrinolysis |
|  |  |  |
| В | 047 | The organs of formation of anticoagulants and components of fibrinolysis: |
| О |  | vessels and lymph nodes |
| О |  | liver, spleen |
| О |  | liver |
| О |  | bone marrow, liver, blood vessels |
|  |  |  |
| В | 048 | Fibrinolysis is a process: |
| О |  | the transition of fibrinogen into a filamentary substance |
| О |  | inactivation of fibrinolysin |
| О |  | extraction of serum from a fibrin clot |
| О |  | blood clot dissolution |
|  |  |  |
| В | 049 | Positive hemostatic potential is aimed at: |
| О |  | thrombus dissolution |
| О |  | strengthening the anticoagulation system |
| О |  | stop bleeding |
| О |  | removal of intoxication |
|  |  |  |
| В | 050 | The following are involved in the regulation of the state of aggregation of blood: |
| О |  | the system of respiration, excretion, blood, blood circulation, digestion, support and movement system |
| О |  | respiratory, excretory, and circulatory system |
| О |  | respiratory system |
| О |  | blood system |
|  |  |  |
| В | 051 | How does thrombocytopenia affect clotting of blood? |
| О |  | stimulates the formation of plasma coagulation factors |
| О |  | forms a positive hemostatic potential |
| О |  | forms a negative hemostatic potential |
| О |  | does not affect |
|  |  |  |
| В | 052 | How does hypothermia affect blood coagulation: |
| О |  | slows down |
| О |  | enhances fibrinolysis |
| О |  | does not affect |
| О |  | accelerates |
|  |  |  |
| В | 053 | In desert conditions, the regulation of the state of aggregation of blood is aimed at: |
| О |  | increasion blood viscosity |
| О |  | formation of positive hemostatic potential |
| О |  | formation of negative hemostatic potential |
| О |  | formation blood clots |
|  |  |  |
| В | 054 | How many white blood cells in 1 liter of blood? |
| О |  | 4-9 \* 109 |
| О |  | 4,5-5,5 \* 1012 |
| О |  | 120-250 \* 109 |
| О |  | 0.8-1.2 \* 109 |
|  |  |  |
| В | 055 | Сколько тромбоцитов в 1 литре крови? |
| О |  | 4-9 \* 109 |
| О |  | 4,5-5,5 \* 1012 |
| О |  | 0,8-1,2 \* 109 |
| О |  | 120-350 \* 109 |
|  |  |  |