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 |  | **General physiology** |
|  |  |  |
| В | 001 | The ability of living tissue to respond to the action of a stimulus is called: |
| О |  | conductivity |
| О |  | exaltation |
| О |  | irritability |
| О |  | lability |
|  |  |  |
| В | 002 | The ability of cells under the influence of irritation to selectively change the permeability of the outer membrane for sodium, potassium and chlorine ions is called: |
| О |  | conductivity |
| О |  | exaltation |
| О |  | excitability |
| О |  | lability |
|  |  |  |
| В | 003 | The minimum stimulus strength necessary and sufficient to trigger a response is called: |
| О |  | submaximal |
| О |  | subthreshold |
| О |  | suprathreshold |
| О |  | threshold |
|  |  |  |
| В | 004 | The amplitude of contraction of a single muscle fiber with an increase in irritation strength above a threshold: |
| О |  | decreases |
| О |  | first increases, then decreases |
| О |  | increases to a maximum |
| О |  | remains unchanged |
|  |  |  |
| В | 005 | The minimum strength of the stimulus leading to excitation is called: |
| О |  | chronexia |
| О |  | electric current |
| О |  | rheobase |
| О |  | useful time |
|  |  |  |
| В | 006 | The law of power obeys the following structures: |
| О |  | heart muscle |
| О |  | single muscle fiber |
| О |  | single nerve fiber |
| О |  | whole skeletal muscle |
|  |  |  |
| В | 007 | What excitable formation has the lowest threshold of irritation? |
| О |  | myocardium |
| О |  | nerve |
| О |  | neuromuscular synapse |
| О |  | skeletal muscle |
|  |  |  |
| В | 008 | Which excitable tissue has the highest excitability? |
| О |  | epithelial tissue |
| О |  | nerve tissue |
| О |  | smooth muscle tissue |
| О |  | striated muscle tissue |
|  |  |  |
| В | 009 | What parameter allows to determine the excitability of the nerve and muscle in case of single irritations? |
| О |  | irritation duration |
| О |  | irritation threshold level |
| О |  | measure of lability |
| О |  | the speed of the excitation |
|  |  |  |
| В | 010 | What is the name of the electrical potential curve of the cell membrane during stimulation? |
| О |  | action potential |
| О |  | postsynaptic potential |
| О |  | resting potential |
| О |  | spontaneous potential |
|  |  |  |
| В | 011 | What is the movement of ions through the membrane during depolarization? |
| О |  | all of these ions move in the cell |
| О |  | chlorine ions in the cell |
| О |  | potassium ions from the cell |
| О |  | sodium ions in the cell |
|  |  |  |
| В | 012 | What is the movement of ions through the membrane during hyperpolarization? |
| О |  | all of these ions move to the cell |
| О |  | potassium ions from the cell and chlorine ions into the cell |
| О |  | potassium ions into the cell and chlorine ions from the cell |
| О |  | sodium ions from the cell and potassium ions to the cell |
|  |  |  |
| В | 013 | What is the movement of ions through the membrane during hyperpolarization? |
| О |  | all these ions move into the cell |
| О |  | chlorine ions in the cell |
| О |  | potassium ions from the cell |
| О |  | sodium ions in the cell |
|  |  |  |
| В | 014 | How does excitability change at the peak of the action potential? |
| О |  | decreases to zero |
| О |  | does not change |
| О |  | slightly increased |
| О |  | slightly reduced |
|  |  |  |
| В | 015 | How does excitability change at during a negative trace potential? |
| О |  | does not change |
| О |  | increases and decreases several times |
| О |  | slightly enlarged |
| О |  | slightly reduced |
|  |  |  |
| В | 016 | How does excitability change at during positive trace potential? |
| О |  | decreases to zero |
| О |  | does not change |
| О |  | slightly increased |
| О |  | slightly reduced |
|  |  |  |
| В | 017 | What structures obey the law All or Nothing? |
| О |  | both entities are not subordinates |
| О |  | both entities obey |
| О |  | one fiber does not obey, but a muscle obeys |
| О |  | one fiber obeys, and the muscle does not obey |
|  |  |  |
| В | 018 | What is the criterion of lability? |
| О |  | maximum excitation frequency |
| О |  | reaction force |
| О |  | response time |
| О |  | threshold of irritation |
|  |  |  |
| В | 019 | At rest, the excitability of the cell: |
| О |  | completely absent |
| О |  | normal |
| О |  | significantly increas |
| О |  | slightly increas |
|  |  |  |
| В | 020 | What law reflects the ratio of the magnitude of the stimulus to the time of its exposure? |
| О |  | law of force |
| О |  | the law "is all or nothing" |
| О |  | the law of force-time |
| О |  | the law of steepness of irritation |
|  |  |  |
| В | 021 | According to what law do tissues give a maximum response on the action of a threshold and superthreshold stimulus?. |
| О |  | law of force |
| О |  | the law "is all or nothing" |
| О |  | the law of force-time |
| О |  | the law of steepness of irritation |
|  |  |  |
| В | 022 | What is the law called by which, with an increase in the strength of the stimulus, the response increases? |
| О |  | law of power |
| О |  | the law is "all or nothing" |
| О |  | the law of force-time |
| О |  | the law of steepness of irritation |
|  |  |  |
| В | 023 | Excitable tissues include: |
| О |  | bone |
| О |  | connecting |
| О |  | epithelial |
| О |  | nervous, muscular, glandular |
|  |  |  |
| В | 024 | What is the name of the stimulus, which, with minimal force, causes irritation of the special receptor formed during the evolution? |
| О |  | adequate |
| О |  | inadequate |
| О |  | subthreshold |
| О |  | threshold |
|  |  |  |
| В | 025 | Adaptation of tissue to a stimulus slowly increasing in strength is called: |
| О |  | accommodation |
| О |  | functional mobility |
| О |  | hyperpolarization |
| О |  | lability |
|  |  |  |
| В | 026 | For contractility of excitable tissues is characterized by: |
| О |  | maximum number of excitations per unit time |
| О |  | mechanical stress and changes in myocyte configuration |
| О |  | redistribution of ions |
| О |  | release of biologically active substances |
|  |  |  |
| В | 027 | An increase in the potential of a resting membrane is called: |
| О |  | depolarization |
| О |  | hyperpolarization |
| О |  | repolarization |
| О |  | reversion |
|  |  |  |
| В | 028 | What ions in the cytoplasm of cells more than in the intercellular medium? |
| О |  | calcium |
| О |  | chlorine |
| О |  | potassium |
| О |  | sodium |
|  |  |  |
| В | 029 | The concentration difference for sodium and potassium in the cell and intercellular space is created: |
| О |  | membrane potential |
| О |  | potential dependent potassium channels |
| О |  | sodium - potassium pump |
| О |  | sodium selective channel |
|  |  |  |
| В | 030 | The period of increased excitability in the phase of trace depolarization is called: |
| О |  | absolute refractoriness |
| О |  | exaltation |
| О |  | relative refractoriness |
| О |  | subnormal excitability |
|  |  |  |
| В | 031 | The level of membrane depolarization at which an action potential occurs is called: |
| О |  | critical level of depolarization |
| О |  | hyperpolarization |
| О |  | hypopolarization |
| О |  | subcritical level |
|  |  |  |
| В | 032 | The repolarization phase is associated with an increase in ion permeability: |
| О |  | calcium |
| О |  | chlorine |
| О |  | potassium |
| О |  | sodium |
|  |  |  |
| В | 033 | The movement of ions against the concentration gradient is called: |
| О |  | active transport |
| О |  | endocytosis |
| О |  | passive transport |
| О |  | pinocytosis |
|  |  |  |
| В | 034 | The main function of dendrites is: |
| О |  | conducting excitation from the cell body to the effector |
| О |  | information transfer to the body of a neuron |
| О |  | nerve impulse integration |
| О |  | production of a mediator |
|  |  |  |
| В | 035 | How does excitability change during a local response? |
| О |  | does not change |
| О |  | increases and decreases several times |
| О |  | slightly increased |
| О |  | slightly reduced |
|  |  |  |
| В | 036 | Which education has the most lability? |
| О |  | myocardium |
| О |  | nerve |
| О |  | neuromuscular synapse |
| О |  | skeletal muscle |
|  |  |  |
| В | 037 | What lability does a nerve have? |
| О |  | 10 Hz |
| О |  | 100 Hz |
| О |  | 1000 Hz |
| О |  | 20 Hz |
|  |  |  |
| В | 038 | Functional lability is measured: |
| О |  | in millivolts per second |
| О |  | in mm per second |
| О |  | in number of action potentials per second |
| О |  | in seconds |
|  |  |  |
| В | 039 | Excitation on mixed nerves is carried out according to the laws: |
| О |  | isolated conduct of arousal |
| О |  | physiological integrity of the nerve |
| О |  | the same speed for different types of nerve fibers |
| О |  | two-sided excitation |
|  |  |  |
| В | 040 | Different speed of excitation in nerve fibers is due to: |
| О |  | fiber thickness and the presence or absence of myelin sheath, the density of ion channels |
| О |  | short refractory period |
| О |  | the presence in the myelin sheath of segment Ranvier |
| О |  | the presence of the Schwann shell |
|  |  |  |
| В | 041 | Different speed of excitation in nerve fibers is due to: |
| О |  | fiber thickness and the presence or absence of myelin sheath, the density of ion channels |
| О |  | short refractory period |
| О |  | the presence in the myelin sheath of the intercept Ranvier |
| О |  | the presence of the Schwann shell |
|  |  |  |
| В | 042 | The open section of the axial cylinder membrane with a width of about 1 μm, in which the myelin sheath is interrupted, is called:. |
| О |  | axonal hillock |
| О |  | intercept Ranvier |
| О |  | myelin coupling |
| О |  | presynaptic terminal |
|  |  |  |
| В | 043 | Structural formation providing the transfer of excitation from one cell to another is called: |
| О |  | axonal knoll |
| О |  | intercept Ranvier |
| О |  | nerve |
| О |  | synapse |
|  |  |  |
| В | 044 | What is the main reason for the cessation of effect acetylcholine after excitation in synapses? |
| О |  | acetylcholine cleavage with cholinesterase |
| О |  | acetylcholine digestion with monoamine oxidase |
| О |  | diffusion of acetylcholine into the capillaries surrounding the synapse |
| О |  | reverse absorption of acetylcholine to the presynaptic ending |
|  |  |  |
| В | 045 | What is causes excitation of the postsynaptic membrane? |
| О |  | increased permeability to chlorine ions |
| О |  | increased permeability to potassium ions |
| О |  | increased permeability to sodium and potassium ions simultaneously |
| О |  | increased permeability to sodium ions |
|  |  |  |
| В | 046 | The excitatory effect of adrenaline in the synapse is associated with: |
| О |  | accumulation of vesicles with a mediator |
| О |  | depolarization of the postsynaptic membrane |
| О |  | depolarization of the presynaptic membrane |
| О |  | hyperpolarization of the postsynaptic membrane |
|  |  |  |
| В | 047 | The inhibitory effect of acetylcholine in the inhibitory synapse is associated with: |
| О |  | activation of calcium channels |
| О |  | activation of chlorine channels |
| О |  | inactivation of potassium channels |
| О |  | inactivation of sodium channels |
|  |  |  |
| В | 048 | Functional features of chemical synapses are: |
| О |  | high synapse lability; two-way passage |
| О |  | rapid fatigue of the synapse; one-way passage |
| О |  | two-way passage; high synapse lability |
| О |  | two-way passage; high synapse lability |
|  |  |  |
| В | 049 | The decrease in the number of nerve impulses during passage through the nerve center is due to: |
| О |  | post-tetanic potentiation |
| О |  | reflex aftereffect |
| О |  | the presence of a dominant focus of excitation |
| О |  | transformation of rhythm in the nerve center |
|  |  |  |
| В | 050 | The role of the CNS synapses is that they: |
| О |  | are the place of occurrence of excitation in the central nervous system |
| О |  | conduct quiescent currents |
| О |  | form the resting potential of the nerve cell |
| О |  | transmit excitation from neuron to neuron |
|  |  |  |
| В | 051 | Nerve centers do not possess: |
| О |  | ability to sum excitement |
| О |  | ability to transform rhythm |
| О |  | bilateral excitation |
| О |  | ductility |
|  |  |  |
| В | 052 | An increase in the number of excited neurons at the exit of the nerve center is called: |
| О |  | convergence |
| О |  | irradiation |
| О |  | relief |
| О |  | sequential summation |
|  |  |  |
| В | 053 | Spatial summation of nerve impulses is provided by: |
| О |  | circulation of excitement |
| О |  | convergence of excitement |
| О |  | divergence of excitement |
| О |  | the presence of feedback |
|  |  |  |
| В | 054 | The mediator of the inhibitory neuron on the postsynaptic membrane causes: |
| О |  | depolarization |
| О |  | hyperpolarization |
| О |  | repolarization |
| О |  | static polarization |
|  |  |  |
| В | 055 | The value of reciprocal inhibition is: |
| О |  | ensuring coordination of the work of centers-antagonists |
| О |  | facilitating synaptic contacts |
| О |  | liberation of the central nervous system from the processing of non-essential information |
| О |  | performing a protective function |
|  |  |  |
| В | 056 | The occurrence of hyperpolarization on the postsynaptic membrane is associated with ions: |
| О |  | calcium |
| О |  | potassium and chlorine |
| О |  | sodium |
| О |  | sodium and chlorine |
|  |  |  |
| В | 057 | The occurrence of pessimal inhibition occurs: |
| О |  | from high frequency pulses |
| О |  | low pulse frequency |
| О |  | when participation of brake mediators |
| О |  | with participation inhibition cell involvement |
|  |  |  |
| В | 058 | The mechanism of presynaptic inhibition is associated with: |
| О |  | hyperpolarization |
| О |  | operation of the K - Na pump |
| О |  | prolonged depolarization |
| О |  | the operation of the Ca pump |
|  |  |  |
| В | 059 | The contraction of the flexor muscles while relaxing the extensor muscles is possible as a result of:. |
| О |  | active rest |
| О |  | negative induction |
| О |  | pessimal inhibition |
| О |  | reciprocal inhibition |
|  |  |  |
| В | 060 | With the help of inhibitory Renshaw cell, inhibition is carried out: |
| О |  | lateral |
| О |  | primary |
| О |  | reciprocal |
| О |  | returnable |
|  |  |  |
| В | 061 | For neurons of the dominant focus is not characteristic:. |
| О |  | ability to summarize excitations |
| О |  | ability to transform rhythm |
| О |  | high lability |
| О |  | low lability |