**TESTS for the exam**

**students of Vth year, X semester**

**subject "Physiotherapy in dentistry"**

**250 tests in English**

1. **C.S. What is the notion of Physiotherapy:**
2. **organization of dental care in the physiotherapy practice**
3. **the discipline that studies the action of natural and artificial physical factors on the organism for the treatment and prophylaxis of dental diseases**
4. **a medical science that studies periodontal diseases**
5. **conservative therapy of odonto periodontal structures**
6. **diagnosis and interceptive therapy of dento-maxillary anomalies**

**Answer: B**

1. **C.S. Specify the required area for the physiotherapy office:**
2. **14 m2**
3. **21 m2**
4. **32-38 m2**
5. **16 m2**
6. **50 m2**

**Answer: C**

1. **C.M. Name the devices needed to equip the physiotherapy office:**
2. **Electroodontodiagnostic device**
3. **Fluctuorization device**
4. **Device for d’arsonvalization**
5. **Device for instruments sterilization**
6. **Laser device**

**Answer: A, B, C, E**

1. **C.M. What is the concept of Electrotherapy:**
2. **the application of an electric current to a region of the body in order to obtain therapeutic effects**
3. **This type of activity is also known as electrostimulation or electrical therapy**
4. **The technique of safety in physiotherapy practice**
5. **aseptic and antiseptic rules in the physiotherapy office**
6. **to know the methodology of physiotherapeutic interaction of physical factors**

**Answer: A, B**

1. **C.S. What are the biological effects of electric current:**
2. **analgesic effect**
3. **anti-edematous effect**
4. **nutritive and vasodilator effect**
5. **resorptive effect**
6. **all those listed**

**Answer: E**

1. **C.M. Potential of resting is determined by:**
2. **Extracellular/intracellular Na+ ratio of 12/1**
3. **The intracellular/extracellular Na+ ratio is 12/1**
4. **Extracellular/intracellular K+ ratio of 1/38**
5. **Intracellular/extracellular K+ ratio of 1/38**
6. **Ratio Na+/K+ is equal**

**Answer: A, D**

1. **C.S. Name the properties of laser radiation:**
2. **all those listed**
3. **coherence**
4. **directionality**
5. **intensity**
6. **monochromaticity**

**Answer: A**

1. **C. M. The amount of energy that reaches a certain level in the tissue depends on the following factors:**
2. **Phenomena of physiological adaptation**
3. **reflection**
4. **dispersion**
5. **bone tissue apposition**
6. **radiation absorption**

**Answer: B, C, E**

1. **C.S. Specify the laser systems used in dentistry:**
2. **All those listed**
3. **CO2 laser (10600 nm)**
4. **Cr:YSGG laser (2780 nm)**
5. **Er, YAG lasers (2940 nm)**
6. **Diode laser (630-970 nm)**

**Answer: A**

1. **C.S. Name the type of current applied in the electrophoresis and galvanization method:**
2. **High frequency current**
3. **Medium frequency current**
4. **High tension current**
5. **Direct current of low power and tension**
6. **Pulsed current of low frequency**

**Answer: D**

1. **C.M. Select basic factors in electrophoresis with medication:**
2. **Polarization process**
3. **General temperature rise**
4. **The ionization process**
5. **Increase metabolic processes**
6. **Improve blood and lymphatic circulation**

**Answer: A, C**

1. **C.M. Select tissues that poorly conduct electric current:**
2. **Blood**
3. **Lymth**
4. **Bone tissue**
5. **Cerebrospinal fluid**
6. **Adipose tissue**

**Answer: C, E**

1. **C.S. Specify the degrees of conductibility of the tissue structures of the human body:**
2. **Grade IV**
3. **Grade I**
4. **Grade III**
5. **Grade II**
6. **All those listed**

**Answer: E**

1. **C.M. Name the anatomical structures that are very good electrical conductors (grade I):**
2. **blood**
3. **lymth**
4. **cerebrospinal fluid**
5. **vitreous body**
6. **bone tissue**

**Answer: A, B, C, D**

1. **C.M. Choose anatomical structures considered good electrical conductors (grade II):**
2. **adipose tissue**
3. **sudoriferous glands**
4. **muscles**
5. **subcutaneous tissue**
6. **internal organ**

**Answer: B, C, D, E**

1. **C.M. Specify the anatomical structures considered poorly electrically conductors (grade III):**
2. **nervous tissue**
3. **adipose tissue**
4. **blood**
5. **sebaceous gland**
6. **bone tissues**

 **Answer: A, B, D, E**

1. **C.M. Specify anatomical structures considered very poorly electrically conductors (grade IV):**
2. **adipose tissue**
3. **hair**
4. **epidermis**
5. **blood**
6. **lymth**

**Answer: B, C**

1. **C.M. Choose the indications for galvanization:**
2. **Tumors**
3. **Fractures**
4. **Neuralgias**
5. **Hemorrhages**
6. **Fever**

**Answer: B, C**

1. **C.M. Electric current is classified according to the following criteria:**

**A. by frequency**

**B. by direction**

**C. by the temporal organization of electric waves**

**D. by wave shape**

**E. according to the degree of conductibility of the body structures**

**Answer: A, B, C, D**

1. **C.M. List the biological effects of electric current:**

**A. Antalgic effect**

**B. Vasodilator effect**

**C. Immunostimulatory effect**

**D. Hemostatic effect**

**E. Anti-edematous effect**

**Answer: A, B, E**

1. **C.M. What are the biological effects of the electric current:**

**A. Immunomodulatory effect**

**B. Ionizing effect**

**C. Excito-motor effect**

**D. Nutritive effect**

**E. Resorptive effect**

**Answer: B, C, D, E**

1. **C.S. What is the potential of resting the cell/cell membrane:**
2. **The response of a nerve fiber to electrical stimuli of progressively increasing intensity - the law "all-thing or nothing"**

**B. Electrical stimulation occurs with variations in intensity over a short period of time**

**C. The potential of resting is mainly determined by the passive diffusion of K+ ions and by**

 **active transport of Na+ and K+ ions via the K-Na pump**

**D. Degree of depolarization and repolarization of the ground substance of the dental pulp**

**E. Secondary dentin formation on the open pulp horn in deep caries**

**Answer: C**

1. **C.M. The potential of action the cell/cell membrane is manifested by:**

**A. Depolarization of the cell membrane leads to occur the potential of action (1 ms)**

**B. Due to the difference in concentration of Na+ and K+ ions in the cell membrane at rest,**

**It is realized difference of tension**

**C. Stimulation of the cell by various physical agents produces a rude modification in ion permeability membranes, leading to a massive influx of Na+ ions from the outside into the cell**

**D. The response of a nerve fiber to electrical stimuli of progressively increasing intensity - the law "all-thing or nothing"**

**E. The action potential is manifested by depolarization, repolarization, hyperpolarization**

**Answer: A, C, D, E**

1. **C.S. The spread of electric current in the body has the following characteristics:**

**A. The electrical conductibility of a tissue is directly proportional to its water content**

**B. Regardless of where the electrodes are placed, the lines of force of the current spread throughout**

 **the body, but with the greatest amount going through the areas of least resistance**

**C. In the region between the electrodes, the current intensity is not equal, but proportional to**

 **electrical conductibility of tissues**

**D. all those listed**

**E. The farther a segment is located from the electrodes, the current intensity reaching is**

 **lower**

**Answer: D**

1. **C.M. The physiotherapeutic methods that use direct electric current of low power and tension are:**

**A. galvanization**

**B. electrophoresis with medication**

**C. electroanalgesia with direct current**

**D. magnetotherapy**

**E. cryotherapy**

**Answer: A, B, C**

1. **C.S. The physiotherapeutic methods that use currents with impulse of low tension and frequency are:**

**A. electroodontodiagnostics**

**B. all those listed**

**C. diadynamotherapy (DDT)**

**D. amplipulstherapy (modulated sinusoidal currents)**

**E. fluctuorization**

**Answer: B**

1. **C.S. Alternating electric current and very high frequency electromagnetic field are:**

**A. d'arsonvalization**

**B. diathermy, diathermocoagulation**

**C. very high frequency electric field (VHF)**

**D. all those listed**

**E. microwave therapy**

**Answer: D**

1. **C.M. Phototherapy (therapy with light) is the use of electromagnetic light flux for curative purposes, and special in:**

**A. infrared radiation (IRR)**

**B. Laser therapy**

**C. ultraviolet radiation (UVR)**

**D. hypothermia**

**E. Hydrotherapy**

**Answer: A, B, C**

1. **C.S. Currents with impulses are characterized by:**

**A. Impulse shape**

**B. Impulse amplitude and modulation**

**C. Impulse frequency**

**D. Impulse and pause duration**

**E. all those listed**

**Answer: E**

1. **C.S. In terms of shape, impulses can be:**

**A. rectangular**

**B. all those listed**

**C. trapezoidal**

**D. sinusoidal**

**E. triangular**

**Answer: B**

1. **C.M. There are several types of electrical conductors:**

**A. grade V (oxidative)**

**B. grade I (metallic)**

**C. grade III (gaseous)**

**D. grade IV (magnetic)**

**E. grade II (electrolytic)**

**Answer: B, C, E**

1. **C.M. The classification of electric current by direction is:**

**A. single-phase rhythmic**

**B. unidirectional (polarized)**

**C. two-phase fixed**

**D. bidirectional (unpolarized)**

**E. sinusoidal**

**Answer: B, D**

1. **C.M. Choose the correct description for unidirectional (polarized) electric current:**
2. **characterized by the absence of particle oscillations**
3. **the existence of polar effects (galvanic current, pulsed current with steep and progressive slope)**
4. **very high frequency variable electric field**
5. **very high frequency electric field**
6. **magnetic field**

**Answer: A, B**

1. **C.M. Specify description for bidirectional (unpolarized) electric current:**
2. **low-frequency pulsed current**
3. **high tension current**
4. **characterized by oscillations of particles relative to their initial position**
5. **no polar effects, excludes risks of chemical burn in contact with metals**
6. **medium frequency current**

**Answer: C, D**

1. **C.M. Physiotherapeutic methods in the treatment of traumatic ulcers are:**

**A. Short ultraviolet rays**

**B. microwave therapy**

**C. local d'arsonvalization**

**D. electrophoresis with medication**

**E. aerosol therapy**

**Answer: A, C, E**

1. **C.M. Physiotherapeutic methods in the treatment of chronic recurrent aphthous stomatitis are:**

**A. Ultrasound therapy**

**B. Ultraviolet rays**

**C. Ultraphonophoresis**

**D. Hydrotherapy**

**E. D'arsonvalization, non-contact method**

**Answer: B, C, D, E**

1. **C.S. Physiotherapeutic methods in the treatment of leukoplakia are:**

**A. electroodontodiagnostics, diadynamotherapy**

**B. diathermocoagulation, cryotherapy, hydromassage**

**C. galvanization, electrophoresis with medication**

**D. phototherapy**

**E. ultrasound therapy**

**Answer: B**

1. **C.M. Physiotherapeutic methods in the treatment of cheilitis are:**

**A. ultraviolet rays**

**B. ultraphonophoresis**

**C. electrophoresis with medication**

**D. ultrasound**

**E. amplipulstherapy**

**Answer: A, B, C, D**

1. **C.M. Physical methods in the treatment of glossalgia and paresthesia are:**

**A. Fluctutuorization**

**B. Electrophoresis with medication (bromine, iodine, vit. B1)**

**C. Diadinamotherapy**

**D. Cryotherapy and hypothermia**

**E. D'arsonvalization**

**Answer: B, C, E**

1. **C.S. Electrophoresis with medication in caries stage of macula is performed with:**

**A. Brom, iodine, vit. B1**

**B. Kalium iodide 6%**

**C. Calcium, phosphorus, fluoride**

**D. trypsin, chymotrypsin, deoxyribonuclease**

**E. hydrocortisone, prednisolone**

**Answer: C**

1. **C.S. The medicinal remedies to perform electrophoresis are:**

**A. Sodium fluoride sol. 1-2%**

**B. Calcium chloride sol. 1-10%**

**C. Calcium gluconate sol. 1-10%**

**D. Calcium glycerophosphate sol. 2-5%**

**E. all those listed**

**Answer: E**

1. **C.S. The "depot" formation in the oral cavity tissues occurs upon the application of:**
2. **Millimeter microwave therapy**
3. **Magnetic field**
4. **Electric field**
5. **Electrophoresis**
6. **D’arsonvalization**

**Answer: D**

1. **C.S. The electroodontometry values of intact teeth in normal state are:**

**A. 1.5-0.5 µA**

**B. 2-6 µA**

**C. 7-60 µA**

**D. 60-100 µA**

**E. 101-200 µA**

**Answer: B**

1. **C.M. The indications for electroodontodiagnosis are:**

**A. dental caries**

**B. gigantocellular epulis**

**C. apical periodontitis**

**D. sinusitis**

**E. dolor syndrome**

**Answer: A, C, D, E**

1. **C.M. The indications for electroodontodiagnosis are:**

**A. deep dental caries**

**B. marginal periodontitis**

**C. glossalgia**

**D. radicular cyst**

**E. pulpitis**

**Answer: A, B, D, E**

1. **C.M. Specify the indications for electroodontodiagnosis are:**

**A. trauma to the teeth and jaws**

**B. Stomalgia**

**C. osteomyelitis**

**D. tumors of the jaws**

**E. neuritis and neuralgias**

**Answer: A, C, D, E**

1. **C.M. Contraindications to electroodontodiagnosis are:**

**A. Teeth covered with dental crowns**

**B. Epoxy resin and acrylate fillings**

**C. Composite fillings**

**D. Intact tooth**

**E. Tooth with periostitis**

**Answer: A, B**

1. **C.M. The advantages of electroodontodiagnosis are:**

**A. allows assessment of qualitative and quantitative changes in the dental pulp**

**B. for diagnostic and differential diagnosis**

**C. monitoring treatment effectiveness in various stomatological diseases**

**D. treatment of pulpitis complications**

**E. conservative method in the treatment of dental caries**

**Answer: A, B, C**

1. **C.M. The electroodontometry values for teeth with pulpitis are:**

**A. over 100 µA, pulp necrosis**

**B. 25-30 µA, in acute focal pulpitis and chronic fibrous pulpitis**

**C. 60-100 µA, in chronic gangrenous pulpitis**

**D. 2-6 µA, in intact teeth**

**E. 40-50 µA, in acute diffuse pulpitis**

**Answer: B, C, E**

1. **C.S. Devices for determining the electrical excitability of the dental pulp:**

**A. ЭОМ-1, ЭОМ-3, ОД-2М**

**B. Искра-1**

**C. Амплипульс-4**

**D. АСБ-2-1**

**E. ПОТОК-1, ГР-2**

**Answer: A**

1. **C.M. Currents with impulse of low tension and frequency are:**

**A. diadynamotherapy (DDT)**

**B. amplipulstherapy (MSC)**

**C. electroodontodiagnostics**

**D. Electrophoresis with medication**

**E. fluctuation.**

**Answer: A, B, C, E**

1. **C.S. The method of diadynamotherapy represents:**

**A. application of a very high frequency alternating electric field (40 MHz) for therapeutic purposes**

**B. an electrotherapeutic method based on the use of alternating current with high pulses**

 **frequency (1-10 kHz), high tension (20 kV) and low power (0.02 mA)**

**C. method using direct electric current of low tension (30-80 V) and low intensity**

 **(up to 50 mA) for therapeutic purposes**

**D. electrotherapeutic method that influences the human body by the contact method**

 **with pulsating currents, semi-sinusoidal in shape with an elongated posterior front, of low intensity low tension, frequency 50 and 100 Hz**

**E. is the use of high frequency (1-2 MHz) alternating electric current with low tension**

**(150-200 V) and high current (2A) for therapeutic purposes**

**Answer: D**

1. **C.S. The physical characteristic of diadynamic currents is:**

**A. fixed single-phase and fixed two-phase current**

**B. all those listed**

**C. rhythmic monophase current (syncopated rhythm)**

**D. single-phase wavy current**

**E. two-phase wavy current**

**Answer: B**

1. **C.M. Diadynamic currents have the next characteristic:**

**A. direct constant current**

**B. alternating electric current**

**C. short period modulated current (SP)**

**D. long period modulated current (LP)**

**E. very high frequency electromagnetic field**

**Answer: C, D**

1. **C.M. The indications for using diadynamic currents are:**

**A. trigeminal and facial nerve damage**

**B. migraine, angiospasms, periodontosis, pulpitis, apical periodontitis, alveolitis, acute inflammatory processes**

**C. paresis and paralysis of the soft palate, tongue, muscles of the floor of the oral cavity, contusions, sprains of muscles and ligaments, accompanied by pain**

**D. painful syndromes in inflammatory-dystrophic processes of the temporomandibular joint**

**E. Dental caries and non-carious diseases**

**Answer: A, B, C, D**

1. **C.M. Indicate the frequencies used in diadynamotherapy:**
2. **10 Hz**
3. **50 Hz**
4. **100 Hz**
5. **150 Hz**
6. **200 Hz**

**Answer: B, C**

1. **C.S. Select the diadynamic current with pronounced excito-motor effect:**
2. **Fixed single-phase**
3. **Fixed two-phase**
4. **Short period**
5. **Long period**
6. **Syncopated rhythm**

**Answer: E**

1. **C.S. Choose the form of the current in dyadynamic therapy:**
2. **Sinusoidal**
3. **Rectangular**
4. **Exponential**
5. **Semi-sinusoidal**
6. **Triangular**

**Answer: D**

1. **C.S. The effects of diadynamic current are:**

**A. alagezic and anti-inflammatory**

**B. all those listed**

**C. Enhance venous circulation**

**D. Increases lymphatic circulation**

**E. Antidestructive**

**Answer: B**

1. **C.S. Select contraindications in the use of diadynamic currents:**

**A. purulent processes before surgical intervention**

**B. bone fractures**

**C. severe degrees of blood circulation disorders**

**D. all those listed**

**E. Malignant tumors**

**Answer: D**

1. **C.S. Amplipulstherapy is the physiotherapeutic method of treatment:**

**A. is a discipline that studies the effects of natural and artificial physical factors on the body, with the purpose of treatment and prophylaxis of stomatological diseases**

**B. the use of sinusoidal alternating current for therapeutic purposes, which are changes chaotically in amplitude and frequency in a range from 100 to 2000 Hz**

**C. the use of mechanical vibrations of an elastic medium with a frequency exceeding 20 kHz for the therapeutic purpose**

**D. is a physiotherapeutic method, where the active therapeutic factor is the continuous magnetic field, low-frequency alternating, and pulsatile, used for therapeutic purposes**

**E. an electro-therapeutic method used with curative, prophylactic or prophylactic rehabilitation purpose, modulated sinusoidal current of medium friquency (1000-5000 Hz-10000 Hz) that can be modulated depending on frequency and oscillator mode**

**Answer: E**

1. **C.S. The physical characteristic of modulated sinusoidal currents is:**

**A. current with permanent modulation**

**B. current with pulse-pause and freely selected frequency**

**C. modulated and unmodulated oscillations**

**D. alternating frequency current**

**E. all those listed**

**Answer: E**

1. **C.S. Select the frequency of the currents used in amplipulstherapy:**
2. **200 Hz**
3. **300 Hz**
4. **400 Hz**
5. **500 Hz**
6. **5000 Hz**

**Answer: E**

1. **C.M. The indications of amplipulstherapy are:**

**A. disorders in peripheral circulation**

**B. disorders in functions of neuro-muscular system**

**C. disorders of tissue trophicity**

**D. chronic inflammatory processes**

**E. Malignant tumors**

**Answer: A, B, C, D**

1. **C.M. The amplipulstherapy method is indicated in the following cases:**

**A. trigeminal neuralgia**

**B. following trauma to the maxillo-facial area**

**C. dental caries**

**D. enamel hypoplasia**

**E. periodontal diseases (marginal periodontitis, periodontosis)**

**Answer: A, B, E**

1. **C.S. Contraindications of amplipulstherapy are:**

**A. oncologic diseases**

**B. pronounced edema and purulent inflammatory processes**

**C. all those listed**

**D. fractures until they heal**

**E. Acute infectious diseases**

**Answer: C**

1. **C.M. Modulated sunusoidal currents are associated with:**

**A. ultrasound therapy**

**B. massage**

**C. infrared radiation**

**D. laser**

**E. Hydrotherapy**

**Answer: A, C, D**

1. **C.M. Modulated sunusoidal currents are not associated with:**

**A. diathermocoagulation**

**B. galvanization**

**C. diadynamotherapy**

**D. ultraviolet rays in erythematous dozes**

**E. electrophoresis**

**Answer: B, C, D, E**

1. **C.S. Fluctuorization is the physiotherapeutic method of:**
2. **It is a discipline that studies the effects on the body of natural physical factors and**

**artificial, with treatment and prophylaxis purpose of stomatological diseases**

**B. the use of sinusoidal alternating current for therapeutic purposes, which changes chaotically into**

 **amplitude and frequency in a range from 100 to 2000 Hz**

**C. mechanical tissue irritation used for therapeutic purposes**

**D. the process of tissue freezing, in which significant biochemical changes take place**

**E. high heat capacity, thermal conductibility and convection, the method being a strong physiologic irritant**

**Answer: B**

1. **C.M. The physiotherapeutic method of fluctuorization has the following biological effects:**

**A. analgesic effect**

**B. promotes regression of inflammatory infiltrate**

**C. helps to isolate the purulent focus from "healthy" tissue**

**D. hemostatic**

**E. accelerates the wound healing**

**Answer: A, B, C, E**

1. **C.M. Fluctuorization has the following biological effects:**

**A. stimulates regeneration processes by increasing blood and lymphatic circulation**

**B. increased permeability of the vascular wall**

**C. immunomodulator**

**D. acceleration of metabolic processes**

**E. activation of phagocytosis and enzyme activity**

**Answer: A, B, D, E**

1. **C.M. Name the three forms of current generated by the devices while performing the fluctuorization method:**

**A. alternating electric current and very high frequency electromagnetic field**

**B. symmetrical bipolar fluctuating current with identical amplitudes of impulse for both polarities**

**C. asymmetric bipolar fluctuating current, in which two-thirds of the impulses are negative**

**D. fixed two-phase current**

**E. unipolar fluctuating current in which the impulses of one polarity are completely absent**

**Answer: B, C, E**

1. **C.S. Specify the most important indications of fluctuorization:**

**A. pain following exacerbation of chronic periodontitis**

**B. pain following exacerbation of pulpitis**

**C. pain after exacerbation of alveolitis**

**D. enamel hypersensitivity**

**E. all those listed**

**Answer: E**

1. **C.S. The physiotherapeutic method of fluctuorization is indicated in the following cases:**

**A. neuralgias, actinomycosis, salivary gland diseases**

**B. inflammatory processes - periostitis, abscess, flegmon**

**C. all those listed**

**D. inflammatory contracture**

**E. marginal periodontitis**

**Answer: C**

1. **C.M. Contraindications of the fluctuorization method are the following:**

**A. inflammatory processes in the maxillofacial region**

**B. malignant tumors**

**C. Meniere's syndrome**

**D. tendency to bleeding**

**E. periodontal diseases**

**Answer: B, C, D**

1. **C.S. D'arsonvalization as a physiotherapeutic method of treatment represents:**

**A. it is the only method that allows the assessment of qualitative and quantitative dental**

**pulp disturbances**

**B. application of a very high frequency alternating electric field (40 MHz) for therapeutic purposes**

**C. application of very high frequency (2.38 GHz) alternating electromagnetic oscillations in the range centimetric (12.4 cm) and decimetric (65 cm) for therapeutic purposes**

**D. application of alternative current with impulse of high frequency (100-300 kHz), high tension (20**

 **kV) and low intensity (0.02 mA) for therapeutic purposes**

**E. the use of alternative electric current of high frequency (1-2 MHz), low tension (150-**

 **200 V) and high current (2A) for therapeutic purposes**

**Answer: D**

1. **C.S. The effects of d'arsonvalization on tissues are as follows:**

**A. occurs the dilation of arterial and venous vessels**

**B. accelerate the microcirculation and increase nutrient supply**

**C. all those listed**

**D. activation of metabolic exchange in tissues**

**E. improving restorative processes**

**Answer: C**

1. **C.M. Local d'arsonvalization is indicated in:**

**A. catarrhal and hypertrophic gingivitis**

**B. chronic recurrent chronic aphthous stomatitis**

**C. apical periodontitis**

**D. dental caries**

**E. marginal periodontitis**

**Answer: A, B, C, E**

1. **C.S. The local d'arsonvalization method has the following indications:**

**A. in cases of traumatic ulcers and wounds**

**B. jaw fractures**

**C. glossalgia, trigeminal neuralgia**

**D. all those listed**

**E. oral lichen planus, simple form**

**Answer: D**

1. **C.M. Contraindications of the d'arsonvalization method are:**

**A. inflammatory processes**

**B. malignant tumors**

**C. tendency to bleeding**

**D. cardiovascular system insufficiency**

**E. active tuberculosis process**

**Answer: B, C, D, E**

1. **C.S. D'arsonvalization has the following biological effects:**

**A. analgesic, anti-pruritus, anti-inflammatory**

**B. improves the function of the vegetative nervous system**

**C. normalizes microcirculation, removes vascular spasm**

**D. all those listed**

**E. improves tissue permeability, improves reticulo-endothelial function**

**Answer: D**

1. **C.S. What types of electrodes (nozzles) in d'arsonvalization are used for the oral cavity:**

**A. in the form of mushroom (for skin)**

**B. in the form of comb (for scalp)**

**C. nasal and auricular nozzles**

**D. gum nozzels**

**E. T-shaped nozzels for the neck and spine**

**Answer: D**

1. **C.M. How many techniques of local d'arsonvalization do you know:**

**A. mechanical adhesion technique**

**B. mixed technique**

**C. contact technique**

**D. Non contact technique**

**E. direct application technique**

**Answer: C, D**

1. **C.S. What is the distance between the electrode and the skin surface in non contact d'arsonvalization technique:**

**A. 6-8 mm**

**B. 2-3 mm**

**C. 10-12 mm**

**D. 1 cm**

**E. 4 cm**

**Answer: B**

1. **C.M. The therapeutic effect in the non-contact d'arsonvalization technique is provided by a number of reactions:**

**A. allergic reaction**

**B. reflex reaction**

**C. vascular response**

**D. immediate response**

**E. immune response**

**Answer: B, C, E**

1. **C.S. Concept of very high frequency electric field (VHF) is:**
2. **an electrotherapeutic method based on the use of alternating current with high in pulses**

**frequency (1-10 kHz), high tension (20 kV) and low power (0.02 mA)**

**B. the use of direct electric current of low tension (30-80 V) and low intensity (up to 50 mA) for therapeutic purposes**

**C. application of alternating electric field of a very high frequency (40 MHz) for therapeutic purposes**

**D. it is a combined treatment involving the influence of a constant electrical current and a medicinal substances administered through it**

**E. The increased neurovascular response is favored by the mechanical pressure of the water jet, which in hydrotherapy of oral cavity can reach 2-3 atm**

**Answer: C**

1. **C.S. The electric field very high frequency is indicated in dentistry in the following cases:**

**A. acute inflammatory processes, including purulent**

**B. facial nerve diseases**

**C. soft tissue and jaw injuries**

**D. erosive-ulcerative lesions of the skin and mucosa of the oral cavity**

**E. all those listed**

**Answer: E**

1. **C.S. Contraindications for electrical current therapy of very high frequency are:**

**A. Malignant tumors**

**B. blood diseases**

**C. cardiovascular system insufficiency and hypotensive disease**

**D. all those listed**

**E. pregnancy**

**Answer: D**

1. **C.M. The indications of microwave therapy are:**

**A. hard tissue hyperesthesia**

**B. enamel erosion**

**C. subacute and acute inflammatory processes with exudate drainage**

**D. periodontal diseases**

**E. jaw fractures**

**Answer: C, D, E**

1. **C.M. Contraindications of microwave therapy are:**

**A. apical periodontitis**

**B. malignant tumors**

**C. blood diseases**

**D. cardiovascular system insufficiency**

**E. hypotensive disease and pregnancy**

**Answer: B, C, D, E**

1. **C.S. The mechanism of action of microwave therapy is:**
2. **dilation of vessels and acceleration of blood and lymphatic circulation in the zone of exposure**

**and in symmetric zones**

**B. increased permeability of the vascular wall**

**C. increased substance exchange and tissue defense reactions**

**D. The irritation of nerve receptors in the zone of exposure leads to the formation of positive reflex reactions and a humoral side effect**

**E. all those listed**

**Answer: E**

1. **C.M. Diathermocoagulation in dentistry is used for:**

**A. treatment of cuneiform defects**

**B. coagulation of root canal contents in pulpitis and apical periodontitis**

**C. treatment of catarrhal gingivitis**

**D. for the removal of small benign formations of the lining of the oral cavity mucosa (hemangioma,**

 **papilloma, fibroma, epulis)**

**E. to remove granulation tissue from the periodontal pockets**

**Answer: B, D, E**

1. **C.M. Select contraindications for diathermocoagulation:**

**A. Periodontal abscess**

**B. Gigantocellular epulis**

**C. Gingival fibromatosis**

**D. cardiovascular system insufficiency**

**E. individual current intolerance**

**Answer: D, E**

1. **C.S. The wavelength of infrared rays used for therapeutic purposes is:**

**A. Between 760 millimicrons and 1 mm**

**B. 1400 - 3000 nm**

**C. 3000 nm - 1 mm**

**D. 760 - 1400 nm**

**E. 640 nm**

**Answer: A**

1. **C.S. The wavelength of ultraviolet rays used in therapy is:**

**A. 1400 - 780 nm**

**B. 760 - 400 nm**

**C. 400 - 180 nm**

**D. 180 - 100 nm**

**E. 1400 - 2000 nm**

**Answer: C**

1. **C.M. Specify into how many regions/bands infrared radiation is divided by wavelength:**

**A. 980 nm**

**B. IRR-B - 1400-3000 nm**

**C. IRR-A - 760-1400 nm**

**D. 660 nm**

**E. IRR-C - 3000 nm-1 mm**

**Answer: B, C, E**

1. **C.M. The indications for infrared therapy are:**

**A. chronic inflammatory processes in the maxillofacial region**

**B. acute processes to accelerate suppuration**

**C. tumors in the maxillofacial region**

**D. post-traumatic period**

**E. burns, frost-bitten**

**Answer: A, B, D, E**

1. **C.S. Name the energy variety - active factor in ultrasound:**

**A. magnetic field**

**B. electric field**

**C. mechanical energy**

**D. direct current**

**E. pulsed current**

**Answer: C**

1. **C.S. Infrared rays penetrate tissues to a depth of:**

**A. 1 mm**

**B. 1 cm**

**C. 2-3 cm**

**D. 14 mm**

**E. 9-10 cm**

**Answer: D**

1. **C.S. Select the biophysical action underlying infrared radiation:**

**A. photochemical action**

**B. photoelectric action**

**C. ionizing action**

**D. thermal action**

**E. mechanical action**

**Answer: D**

1. **C.M. The classification of infrared radiation is:**

**A. 400-760 nm**

**B. 180-400 nm**

**C. short infrared 760-1500 nm**

**D. 100-180 nm**

**E. long infrared 1500-15000 nm**

**Answer: C, E**

1. **C.M. List the effects of infrared radiation:**

**A. resorption of inflammatory processes**

**B. pain relief**

**C. spasmolytic action**

**D. bactericidal action**

**E. analgesic action**

**Answer: A, B, C, D**

1. **C.M. The indications for ultrasonic scaling are:**

**A. supragingival tartar**

**B. colored stains deposited on the enamel surface**

**C. calculus from gingival sulcus or superficial periodontal pockets, of 3-4 mm**

**D. treatment of acute complications**

**E. in ultrasonic scaling there is the advantage of no instrument skidding, which is**

 **maintained and applied with reduced force**

**Answer: A, B, C, E**

1. **C.S. Contraindications of ultrasonic scaling are as follows:**

**A. patients with infectious, contagious diseases**

**B. patients with exaggerated vomiting reflexes**

**C. marked dentin hyperesthesia**

**D. all those listed**

**E. heart patients with pacemakers**

**Answer: D**

1. **C.S. The advantages of ultrasonic scaling are:**

**A. modern, efficient, ergonomic scaling method**

**B. less traumatizing action on dental and gingival structures**

**C. removal of pigmented deposits from tooth surfaces**

**D. is well tolerated, painless in adults, neuropsychically balanced, without**

 **dentin hypersensitivity**

 **E. all those listed**

**Answer: E**

1. **C.M. The disadvantages of ultrasound scaling are the following:**

**A. strong vibrations applied for a long time perpendicular to the tooth surface can cause**

 **detachments of enamel prisms and cement dislocations**

**B. strong vibrations in the gingival sulcus can cause detachment of the junctional epithelium and**

 **supraalveolar ligaments**

**C. hyperesthesia pain is sometimes difficult for patients to support**

**D. low energy consumption, driven by the air jet**

**E. under the action of ultrasonic vibrations, the mechanically active part can dislodge the**

 **metallic and non-metallic fillings**

**Answer: A, B, C, E**

1. **C.M. The physiotherapeutic methods often used in dentistry are:**

**A. electroodontodiagnosis**

**B. the laser**

**C. d’arsonvalization**

**D. diathermocoagulation**

**E. ultrasound**

**Answer: B, C, E**

1. **C.M. The operating characteristics (parameters) of a laser are:**

**A. current tension**

**B. strength**

**C. wavelength**

**D. modulation frequency**

**E. power density**

**Answer: B, C, D, E**

1. **C.S. Specify the therapeutic current density in the oral cavity in local sessions of galvanization and electrophoresis with medication:**

**A. 5 mA/cm2**

**B. 1 mA/cm2**

**C. 0.02-0.07 mA/cm2**

**D. 0.1-0.5 mA/cm2**

**E. 0.01-0.02 mA/cm2**

**Answer: D**

1. **C.M. Choose the concentration of medicaments recommended in electrophoresis:**

**A. 0,5-1 %**

**B. 3 %**

**C. 2-6 %**

**D. optimal 1-3%**

**E. 10 %**

**Answer: C, D**

1. **C.S. Select the physical method indicated in the treatment of trigeminal neuralgia:**

**A. galvanization by Bergonie**

**B. galvanization by Vermeli**

**C. diadynamic currents**

**D. galvanic bath**

**E. amplipulstherapy**

**Answer: A**

1. **C.M. Commonly used massage methods are:**

**A. Digital massage**

**B. Hypothermia**

**C. Manual massage**

**D. Vacuum-therapy**

**E. Vibrational gum massage**

**Answer: A, C, E**

1. **C.M. Common vacuum-therapy methods are:**

**A. Magnetotherapy**

**B. Massaging action on marginal periodontium**

**C. Determination of oral mucosal permeability**

**D. Vacuum electrophoresis of marginal periodontium**

**E. Vacuum-curretage of periodontal pockets**

**Answer: B, C, D, E**

1. **C.S. The wavelength of the Helbo laser in photodynamic antimicrobial therapy is:**
2. **660 nm**
3. **630 - 970 nm**
4. **2780 nm**
5. **400 - 180 nm**
6. **400 - 760 nm**

**Answer: A**

1. **C.S. In Helbo laser is used the following photosensitizing solution:**
2. **Methylene blue 1 %**
3. **Toluidine blue**
4. **Phenothiazine dye**
5. **Iodinol 1 %**
6. **Hematoxylin-eosin**

**Answer: C**

1. **C.S. The action time of phenothiazine dye for the Helbo laser is:**
2. **30 sec**
3. **60 sec - 2 min**
4. **3 min**
5. **10 sec**
6. **5 min**

**Answer: B**

1. **C.S. Helbo laser photodynamic therapy is indicated in:**
2. **Marginal periodontitis**
3. **Periimplantitis**
4. **Tooth decay**
5. **Dental socket disinfection**
6. **All those listed**

**Answer: E**

1. **C.M. The indications for photodynamic therapy with the Helbo laser are:**
2. **Endodontic treatment (orthograde)**
3. **Endodontic (retrograde) treatment**
4. **Osteonecrosis**
5. **Neuritis and neuralgia**
6. **Oral cavity mucosa diseases**

**Answer: A, B, C, E**

1. **C.M. The photobiological effects of the Helbo laser are the following:**
2. **Hemostatic**
3. **Stimulates wound healing**
4. **Reduces pain**
5. **It has anti-inflammatory action**
6. **Remineralizing effect**

**Answer: B, C, D**

1. **C.S. The physiotherapeutic methods indicated in the treatment of caries in stage of macula:**
2. **Remineralization therapy**
3. **Electrophoresis with calcium, phosphorus, fluorine**
4. **Ultraviolet therapy in the collar area**
5. **Ultraviolet light therapy in the gum area**
6. **All those listed**

**Answer: A, B, C**

1. **C.M. Specify the types of electrodes made for the oral cavity :**
2. **Gingival electrodes**
3. **Buccals with active lateral surface**
4. **Buccals with active tip**
5. **electrodes with diameter 12x4 cm for salivary gland action**
6. **electrodes with diameter 3x5 cm on the lip**

**Answer: A, B, C**

1. **C.M. The following types of gingival electodes are distinguished according to their length:**
2. **1-2 cm**
3. **2-3 cm**
4. **3-5 cm**
5. **12 cm**
6. **8-10 cm**

**Answer: B, C, E**

1. **C.M. Physiotherapeutic methods indicated in the treatment of dental fluorosis are:**
2. **Ultraviolet therapy**
3. **Local saturation of hard tissues with vitamins C, P, PP, group B**
4. **Microwave therapy**
5. **Hydrotherapy**
6. **Cryotherapy**

**Answer: A, B**

1. **C.M. Indicated physiotherapeutic methods in the treatment of erosion of hard dental tissues are:**
2. **Galvanization**
3. **Ultraviolet therapy**
4. **Electrophoresis with medication: calcium, phosphorus, fluoride**
5. **Magnetotherapy**
6. **Infrared rays**

**Answer: B, C**

1. **C.M. Physiotherapeutic methods indicated in the treatment of hypoplasia are:**
2. **Electrophoresis with medication: calcium, phosphorus, fluoride and vitamins B in combination with anesthetics**
3. **Ultraviolet therapy (November - April)**
4. **Fluctuorization**
5. **D'arsonvalization**
6. **Diathermocoagulation**

**Answer: A, B**

1. **C.S. Physiotherapeutic methods indicated in the treatment of hyperesthesia of dental hard tissues are:**
2. **Diadinamotherapy**
3. **Electrophoresis with vitamin B1 in combination with anesthetic**
4. **Electrophoresis with medication: calcium, phosphorus, fluoride**
5. **Amplipulstherapy**
6. **All those listed**

**Answer: E**

1. **C.M. The physiotherapeutic methods indicated in the treatment of wedge-form defect are:**
2. **Electrophoresis with medication: calcium, phosphorus, fluoride**
3. **Galvanization of cervical sympathetic nodules**
4. **Electrophoresis with Vitamin B1 in combination with anesthetic**
5. **Hypothermia**
6. **Ultraviolet light therapy in the neck and gum area**

**Answer: A, B, C, E**

1. **C.S. Physiotherapeutic methods indicated in the treatment of pulpitis:**
2. **All those**
3. **Electrophoresis with anesthetics in the carious cavity**
4. **Diathermocoagulation**
5. **Electrophoresis with kalium iodide**
6. **Electroodontodiagnostics**

**Answer: A**

1. **C.S. Physiotherapeutic methods indicated in the treatment of acute apical periodontitis:**
2. **All those listed**
3. **Fluctuorization**
4. **Diathermocoagulation of the canal content**
5. **Very high frequency electric field**
6. **Microwave therapy**

**Answer: A**

1. **C.S. Physiotherapeutic methods indicated in the treatment of acute apical periodontitis:**
2. **D'arsonvalization**
3. **Diadynamic currents**
4. **Modulated sinusoidal currents**
5. **All those listed**
6. **Electrophoresis with kalium iodide**

**Answer: D**

1. **C.S. Physiotherapeutic methods indicated in the treatment of chronic apical periodontitis:**
2. **All those listed**
3. **Diathermocoagulation**
4. **Electrophoresis with iodine or trypsin**
5. **Ultraphonophoresis**
6. **Modulated sinusoidal currents**

**Answer: A**

1. **C.S. Physiotherapeutic methods indicated in the treatment of chronic exacerbated apical periodontitis:**
2. **Hydrotherapy**
3. **Electrophoresis with iodine or trypsin**
4. **Hypothermia**
5. **Vacuum therapy**
6. **Manual massage**

**Answer: B**

1. **C.S. Indicated physiotherapeutic methods in complications after root canal filling with predominance of pain syndrome:**
2. **D'arsonvalization**
3. **Diadynamic currents**
4. **Fluctuorization**
5. **Microwave therapy**
6. **All those listed**

**Answer: E**

1. **C.M. Physiotherapeutic methods indicated in the treatment of periodontal diseases:**
2. **Galvanization or electrophoresis**
3. **Electrophoresis with calcium chloride 10%, calcium gluconate**
4. **Ultasound to remove dental calculus**
5. **Remineralization therapy**
6. **Therapy with ultraviolet rays**

**Answer: A, B, C**

1. **C.M. Physiotherapeutic treatment of periodontal diseases includes:**
2. **Local d'arsonvalization**
3. **Electrophoresis with heparin, 1% nicotinic acid**
4. **Magnetotherapy**
5. **Hypothermia**
6. **Hydrotherapy**

**Answer: A, B, E**

1. **C.S. Name the physiotherapeutic methods in the treatment of chronic catarrhal gingivitis:**
2. **Therapy with utraviolet rays**
3. **D'arsonvalization**
4. **Vacuum massage or vacuum electrophoresis with ascorbic acid and calcium**
5. **All those listed**
6. **Vibrational massage, digital massage**

**Answer: D**

1. **C.M. Select physiotherapeutic methods in the treatment of hypertrophic gingivitis:**
2. **Hypothermia**
3. **Hydrotherapy**
4. **Electrophoresis with ascorbic acid, calcium, vitamin P and B**
5. **D'arsonvalization**
6. **Diathermocoagulation**

**Answer: B, C, D, E**

1. **C.M. Physiotherapeutic treatment in hypertrophic gingivitis includes:**

**A. Therapy with short ultraviolet rays**

1. **Laser**
2. **Microwave therapy**
3. **Cryotherapy**
4. **General galvanization (by Vermili S.B.)**

**Answer: A, B, E**

1. **C.M. Choose physiotherapeutic methods in traumatic ulcer treatment:**
2. **Therapy with short ultraviolet rays**
3. **Local d'arsonvalization**
4. **Hydrotherapy**
5. **Vacuum-therapy**
6. **Vibrational massage**

**Answer: A, B**

1. **C.M. For chronic recurrent aphthous stomatitis the following physiotherapeutic methods of treatment are indicated:**
2. **Transcanal anod-galvanization of periodontium**
3. **Therapy with ultraviolet rays**
4. **D'arsonvalization non-contact method**
5. **Laser Helbo**
6. **Ozone therapy**

**Answer: B, C, D, E**

1. **C.S. Specify the exposure time in the non-contact d’arsonvalization for oral aphthae:**
2. **5 min**
3. **5-6 min**
4. **1-3 min**
5. **10 min**
6. **30 sec.**

**Answer: C**

1. **C.S. Indicate the physiotherapeutic methods in the treatment of polymorph exsudative erythema:**
2. **Therapy with ultraviolet rays (November-April)**
3. **Electrophoresis with magnesium in the collar area**
4. **Microwave therapy**
5. **Very high frequency electric current (VHF)**
6. **All those listed**

**Answer: E**

1. **C.S. Select physiotherapeutic methods in the treatment of oral lichen planus:**
2. **Magnetotherapy**
3. **Contact and non-contact local d'arsonvalization**
4. **Electrophoresis with nicotinic acid, ascorbic acid, vitamin B1**
5. **Ultraviolet therapy with short rays**
6. **All those listed**

**Answer: E**

1. **C.S. Choose physiotherapeutic methods in treatment of tongue disorders:**
2. **In sleep dysregulation - electrophoresis with bromine, magnesium, euphylline, iodine in the collar area**
3. **In delayed and asthenic reactions is indicated tonic therapy**
4. **Diadynamotherapy**
5. **Local d'arsonvalization, non-contact method**
6. **All those listed**

**Answer: E**

1. **C.M. Select physiotherapeutic methods in the treatment of angular cheilitis:**
2. **Microwave therapy**
3. **Therapy with ultraviolet rays, short and full spectrum in erythemic doses**
4. **Electrophoresis with galascorbine**
5. **Ultraphonophoresis**
6. **Cryotherapy and hypothermia**

**Answer: B, C, D**

1. **C.S. Select physiotherapeutic methods in the treatment of glandular cheilitis:**

 **A. Therapy with ultraviolet rays, short and full spectrum in erythemic doses**

**B. Electrophoresis with iodine**

**C. Ultrasound**

**D. Ultraphonophoresis with hydrocortisone**

 **E. All listed**

 **Answer: E**

1. **C.M. Select medicaments with "-" polarity used in electrophoresis with medication:**
2. **Adrenaline 0.1%**
3. **Aminocapronic acid 5%**
4. **Heparin**
5. **Histamine hydrochloride 0.01%**
6. **Kalium iodide 1-10%**

**Answer: C, E**

1. **C.S. Indicate the medicaments with polarity "-" used for direct current:**
2. **Acetylsalicylic acid 1-10%**
3. **Nicotinic acid 1%**
4. **Aloe extract**
5. **Ascorbic acid 5-10%**
6. **All those listed**

**Answer: E**

1. **C.M. Select medicaments with polarity "+ " used in electrophoresis with medication:**
2. **Sodium fluoride 1%**
3. **Acetylsalicylic acid 1-10%**
4. **Kalium chloride 1-10%**
5. **Calcium chloride 1-10%**
6. **Aminicapronic acid 5%**

**Answer: A, C, D, E**

1. **C.M. Indicate the medicaments most often used in direct current with polarity "+":**
2. **Heparin**
3. **Methylene blue 1%**
4. **Magnesium sulfate 1-10%**
5. **Sodium fluoride 1%**
6. **Zinc chloride 0.1-2%**

**Answer: B, C, D, E**

1. **C.S. Specify the particularity of electrodes made for "point-like" application in electrophoresis with medication:**
2. **Lead plate 3-5 cm diameter**
3. **Electrode size 10x1 cm**
4. **Electrode size 8x10 cm**
5. **Electrode size 5x8 cm**
6. **Electrode size 12x4 cm**

**Answer: A**

1. **C.S. The method of contact therapy with constant current and impulse current in caries stage of macula consists of:**
2. **All those listed**
3. **The ЕЛОЗ-1 or ОД-2М device is used**
4. **Current intensity 30 mkA**
5. **Exposure time up to 20 min**
6. **Use a moistened turunda in a remineralization remedy**

**Answer: A**

1. **C.S. Specify the particularities of transcanal electrophoresis of the periodontium:**
2. **A turunda soaked in a medicament is inserted into the root canal**
3. **Use a 10 cm copper conductor protected at the ends**
4. **The short end of the conductor is 2mm and the long end is 2 cm**
5. **All those listed**
6. **The short end is inserted into the tooth cavity and threaded into the cotton turunda, current intensity 30 mkA, time 20 min**

**Answer: D**

1. **C.M. Choose the correct steps in electrophoresis with medication longitudinal method on gingiva:**
2. **The first 10x1 cm electrode is applied to the mucosa of the alveolar process of the upper jaw on the buccal side**
3. **A second electrode of the same size is applied to the gum mucosa of the lower jaw**
4. **The conductors from the electrodes are joined and connected to the device terminal**
5. **One electrode is placed on the gum and the other on the lower lip**
6. **The passive electrode of size 8x10 cm is applied to the outside of the right forearm**

**Answer: A, B, C, E**

1. **C.M. Specify the steps in the technique of local d'arsonvalization with contact on gingiva:**
2. **The active electrode is applied in the retromolar region**
3. **A gingival electrode is inserted with a rubber tube attached to it into the oral cavity**
4. **The contact electrode is moved along the outer surface of the gums, closer to the transition fold, without touching the teeth**
5. **First the gums of the lower jaw and then the upper jaw**
6. **Exposure time 3-5 min, treatment cure 10-15 procedures**

**Answer: B, C, D, E**

1. **C.S. Specify the steps in the technique of local d'arsonvalization non contact method:**
2. **The electrode is 2-3 mm above the skin**
3. **At the same time, there are multiple spark discharges – „cold sparks”**
4. **The electrode is removed by 0.5-1 cm**
5. **This method is used to affect small areas of skin**
6. **All those listed**

**Answer: E**

1. **C.M. Indicate the steps in the digital massage method:**
2. **Digital massage in the morning after teeth brushing**
3. **The massage is performed with the thumb and index finger, alternately from the right or left hand**
4. **A vibromassage device is used**
5. **Action time 3-5 min, daily**
6. **With circular and horizontal movements along the alveolar process**

**Answer: A, B, D, E**

1. **C.S. Specify the main procedures in manual massage:**

**A. smoothing**

**B. kneading**

**C. vibrations**

**D. friction**

**E. all those listed**

**Answer: E**

1. **C.S. Specify the stages in the vibrational massage method:**

**A. vibrational massage occurs with a vibromassage device**

**B. oral cavity hygiene is performed**

**C. the device is handed to the patient**

**D. a low frequency is chosen, the vibrator head is applied to the transition fold with vertical and**

 **horizontal movements**

**E. all those listed**

**Answer: E**

1. **C.M. Specify the steps in the method of vacuum-therapy, massaging action on the periodontium:**
2. **On the alveolar mucosa at the transition fold, a sterile transparent patch 8-20 mm in diameter is applied for 1-2 sec**
3. **The shape of patch is oval or round**
4. **It is created vacuum 300-400 mm col Hg, then release air into the system**
5. **Treatment cure 20 procedures, after 2-3 days**
6. **All those listed**

**Answer: A, B, C, D**

1. **C.M. Specify the steps in the method of vacuum-therapy, determination of the permeability of oral mucosal capillaries:**
2. **Use a 10-20 mm diameter sterile patch applied in the region of the transition fold**
3. **Create vacuum 40 mm col Hg**
4. **It fixes the time of hematoma formation**
5. **Hematoma formation in 5 min**
6. **The hematoma forms on the frontal teeth for 30-60 sec, molars - 70-90 sec.**

**Answer: A, B, C, E**

1. **C.S. Determine the current density in the method of vacuum-electrophoresis of periodontium:**

**A. 0.05-0.1 mA/cm2**

**B. 1-2 mA/cm2**

**C. 0.5-1 mA/cm2**

**D. 5 mA/cm2**

**E. 0.03 mA/cm2**

**Answer: C**

1. **C.S. The vacuum-curretage method is indicated in:**
2. **Periodontal pockets with granulation tissue**
3. **Gingival pockets**
4. **Catarrhal gingivitis**
5. **Gingival fibromatosis**
6. **Ulcero-necrotic stomatitis**

**Answer: A**

1. **C.S. Diathermocoagulation of granules in periodontal pockets occurs in:**

**A. closed-field curettage on 3-4 teeth**

**B. for 20 min on a hemiarcade**

**C. in one visit, coagulation of granules is performed on 4-5 periodontal pockets, with closed circuit of 2-4 sec.**

**D. 3-5 min on one tooth**

**E. 10 min for 1-2 teeth**

**Answer: C**

1. **C.S. Specify the peculiarity of diathermocoagulation in apical periodontitis:**

**A. the electrode is inserted into the root canal 2 mm deep**

**B. lead plate electrode 3x5 cm diameter**

**C. gingival electrode 10x1 cm size**

**D. electrode of 20 cm2 is applied in the submandibular region**

**E. a needle-electrode is inserted into the root canal, on 1/3 of the length and coagulated for 2 sec.**

**Answer: E**

1. **C.S. Choose the unit of magnetic field strength:**

**A. Hz**

**B. mA**

**C. mTl**

**D. mWt**

**E. mV**

**Answer: C**

1. **C.S. Millimeter microwaves penetrate tissues to a depth of:**
2. **1 mm**
3. **10 mm**
4. **5 cm**
5. **8 cm**
6. **11 cm**

**Answer: A**

1. **C.S. Choose the penetration depth of ultraviolet rays:**
2. **6-7 cm**
3. **over 10 cm**
4. **up to 0.6-1 mm**
5. **3 mm**
6. **5 cm**

**Answer: C**

1. **C.M. Choose general galvanization methods:**
2. **Shcherbac collar**
3. **galvanization by Vermeli**
4. **galvanization by Burginion**
5. **galvanization by Bergonie**
6. **anod-galvanization of the periodontium**

**Answer: A, B, D**

1. **C.M. Select methods that can be combined on the same day with amplipulstherapy:**
2. **galvanization**
3. **Ultrasound**
4. **laser beams**
5. **diadynamic currents**
6. **electrophoresis**

**Answer: B, C**

1. **C.M. Select physiotherapeutic methods where low-intensity direct current is used:**
2. **Galvanization**
3. **Magnetotherapy**
4. **Ultraphonophoresis**
5. **Electrophoresis with medication**
6. **Amplipulstherapy**

**Answer: A, D**

1. **C.M. Pulsed current of low frequency is used in the following methods:**
2. **Electric sleep**
3. **Diadynamotherapy (DDT)**
4. **Amplipulstherapy**
5. **Ionophoresis**
6. **Galvanization**

**Answer: A, B, C**

1. **C.M. Select physiotherapeutic methods based on pulsed current of high frequency:**
2. **Galvanization**
3. **Diathermocoagulation**
4. **Microwave therapy**
5. **D’arsonvalization**
6. **Ionophoresis**

**Answer: B, C, D**

1. **C.M. Select the type of irradiation used in the phototherapy method:**
2. **Ultraviolet irradiation**
3. **Infrared irradiation**
4. **Proton irradiation**
5. **Visible beam irradiation**
6. **Ionizing rays**

**Answer: A, B, D**

1. **C.S. What is the optimal concentration of medicaments used in electrophoresis with medication:**
2. **1-5%**
3. **10-15%**
4. **15-20%**
5. **20-25%**
6. **30-40%**

**Answer: A**

1. **C.S. Select the medium density in the fluctuorization method:**
2. **0.1-0.5 mA/cm2**
3. **0.5-1 mA/cm2**
4. **1-2 mA/cm2**
5. **2-3 mA/cm2**
6. **3-4 mA/cm2**

**Answer: C**

1. **C.M. Choose methods that are combined with fluctuating currents:**
2. **Ultraviolet rays in erythemic doses**
3. **Ultrasound**
4. **Diadynamotherapy**
5. **modulated sinusoidal currents**
6. **Infrared rays**

**Answer: B, E**

1. **C.S. Name the physical method indicated in the treatment of trigeminal neuralgia:**
2. **diathermy with short-wave**
3. **Galvanization by Vermeli**
4. **Galvanization by Bergonie**
5. **Galvanic baths**
6. **Hypothermia**

**Answer: A**

1. **C.S. Choose the shape of current that is used for diadynamotherapy:**
2. **Sinusoidal**
3. **Rectangular**
4. **Exponential**
5. **Semi-sinusoidal**
6. **Triangular**

**Answer: D**

1. **C.M. Select the basic parameters for prescribing diadynamic currents:**
2. **Current type**
3. **Polarity**
4. **Current intensity**
5. **Tension**
6. **Duration of action**

**Answer: A, B, C, E**

1. **C.S. Select the basic parameters when prescribing modulated sinusoidal currents:**
2. **Amplitude modulation**
3. **Regime and type of operation**
4. **Frequency and intensity**
5. **All those listed**
6. **Duration of action time**

**Answer: D**

1. **C.M. Name the physiotherapeutic methods that rely on the mechanical waves of the environment:**
2. **Ultrasound therapy**
3. **Phonophoresis with medication**
4. **Vibrational massage**
5. **Microwave therapy**
6. **Phototherapy**

**Answer: A, B, C**

1. **C.S. The visible light diagram is made up of:**
2. **5 spectrum**
3. **7 spectrum**
4. **9 spectrum**
5. **4 spectrum**
6. **8 spectrum**

**Answer: B**

1. **C.S. The simultaneous use of piezoelectric phenomena is found in:**
2. **Galvanization**
3. **Ultrasound therapy**
4. **Diadinamotherapy**
5. **Amplipulstherapy**
6. **Electrophoresis with medication**

**Answer: B**

1. **C.S. Choose the maximum duration for a session of diadynamotherapy:**
2. **6 min**
3. **10 min**
4. **15 min**
5. **20 min**
6. **30 min**

**Answer: B**

1. **C.S. Electrophoresis with medication is incompatible on the same day and in the same region with:**
2. **Ultrasound**
3. **Ultraviolet rays in erythemic doses**
4. **Paraffin applications**
5. **Microwave therapy**
6. **Sludge applications**

**Answer: B**

1. **C.S. Select the biological effects of ultraviolet radiation:**
2. **Causes pigmentation**
3. **Stimulates vitamin D synthesis**
4. **all those listed**
5. **Analgesic, in erythemic doses**
6. **Stimulates immunologic reactivity**

**Answer: C**

1. **C.M. The intensity of ultrasound energy used in practice depends on:**
2. **Treatment region**
3. **Depth of treatment**
4. **Coupling shape**
5. **Mains voltage**
6. **General condition of patients**

 **Answer: A, B, C**

1. **C.S. Structures and properties of ozone - O3:**
2. **Chemical stucture**
3. **Physico-chemical properties**
4. **Chemical reactivity**
5. **Selectivity towards compounds**
6. **all those listed**

**Answer: E**

1. **C.S. Choose the medicaments used for transcanal electrophoresis in apical periodontitis:**
2. **Kalium iodide solution (polarity " - " )**
3. **Trypsin solution (polarity " - " )**
4. **Dimexide 25% (polarity " + " )**
5. **Calcium chloride solution 5-10 % (polarity " -" )**
6. **all those listed**

**Answer: E**

1. **C.S. Specify what is the concept of ozone therapy:**
2. **The therapeutic use of different forms of currents**
3. **Application of electric current to a region of the body for therapeutic effects**
4. **use of low tension (30-80 V) and low intensity (up to 50 mA) direct current for therapeutic purposes**
5. **Ozone therapy is a therapeutic approach in which ozone (O3), a molecule composed of three oxygen atoms, is used for medical purposes**
6. **is a combined treatment involving the influence of a constant electric current and a medicament administered through it**

**Answer: D**

1. **C.M. Specify which forms of oxygen exist:**
2. **CO2**
3. **Univalent oxygen**
4. **O2-O3**
5. **Bivalent oxygen**
6. **O3-Ozone**

**Answer: B, D, E**

1. **C.S. Specify where ozone therapy is mostly used:**
2. **Periodontology and oral pathology**
3. **all those listed**
4. **Odontology and endodontics**
5. **Dental prosthetics**
6. **Oro-maxillo-facial surgery**

**Answer: B**

1. **C.M. Specify dental applications of ozonated oils:**
2. **Hemophilia**
3. **Oral infections**
4. **Traumatic ulcer**
5. **Oral hygiene**
6. **Postsurgical**

**Answer: B, C, D, E**

1. **C.S. Specify the indications for ozone therapy:**
2. **Periodontal diseases**
3. **Disinfection of carious cavities, root canals and operating field**
4. **Oral interventions and extractions**
5. **Oral mucosal diseases (candidiasis, stomatitis, oral herpes, oral aphtha)**
6. **all those listed**

**Answer: E**

1. **C.S. Specify the contraindications of ozone therapy:**
2. **Thrombocytopenias, advanced anemias**
3. **Hemorrhages**
4. **Stroke - hemorrhagic form, acute myocardial infarction**
5. **Hypertensive crises**
6. **all those listed**

**Answer: E**

1. **C.S. Note the advantages of ozone therapy:**
2. **All those listed**
3. **Accessibility**
4. **Rapid therapeutic effect**
5. **Limiting the administration of medicaments**
6. **Improve local metabolism**

**Answer: A**

1. **C.M. Name which are the properties of ozone:**
2. **Optimizing pro- and antioxidant systems**
3. **Antiviral**
4. **Hemoreologic effect**
5. **Immunomodulators**
6. **Antalgic effect**

**Answer: A, C, D, E**

1. **C.S. Specify the properties of ozone:**
2. **Anti-inflammatory**
3. **Antipathogen**
4. **Bactericidal**
5. **Fungicide**
6. **all those listed**

**Answer: E**

1. **C.M. Specify which is the ozone administration in the treatment of dental caries:**
2. **Non-invasive treatment of dental caries in gaseous form 30 - 120 s.**
3. **Tooth decay disinfection**
4. **Treatment of dental hard tissue hypersensitivity**
5. **Filling of root canals**
6. **Dental abrasion**

**Answer: A, B, C, E**

1. **C.S. Specify what is the ozone administration in endodontics:**
2. **Ozonated water "Acquazone" can be used as an intracanal irrigant**
3. **Fill the canal with saline or distilled water and apply ozone for 2-3 minutes**
4. **Intracanal circulation of gaseous ozone at a flow rate of 0.5-1 l/min**
5. **Ozone strengthens tissue regeneration and bone healing**
6. **all those listed**

**Answer: E**

1. **C.S. Name what is the device for applying ozone in dentistry:**
2. **Mouth guards**
3. **Dentures**
4. **Dental clamps**
5. **Dental crowns**
6. **Dental impressions**

**Answer: A**

1. **C.M. Name which is ozone administration in dental hypersensitivity:**
2. **Ozone opens the dentinal tubules**
3. **When the remineralization agent is applied, calcium and fluoride ions penetrate completely into the dentinal tubules**
4. **Effectively reduces sensitivity of enamel and exposed dentin**
5. **Ozone strengthens tissue regeneration and bone healing**
6. **Apply ozone for 40-60 sec then a remineralizing agent**

**Answer: A, B, C, E**

1. **C.S. Name what is the ozone administration in oral mucosa pathology:**
2. **Ozonated water and ozonated oil applied daily, accelerate healing**
3. **Ozone in aqueous and gaseous form is applied in mucositis**
4. **Remission of various mucosal changes**
5. **Treating patients with oral lichen planus planus by tissue insufflation**
6. **all those listed**

**Answer: E**

1. **C.M. Specify ozone administration in oro-maxillo-facial surgery:**
2. **Post extractional using ozonated water**
3. **Preventing infection after osteotomies**
4. **Management of periimplantitis**
5. **As a therapeutic treatment in osteonecrosis of the jaw**
6. **Carcinoma**

**Answer: A, B, C, D**

1. **C.S. Name the ways to apply ozone therapy:**
2. **Autohemotherapy (major, minor)**
3. **Gaseous form administered intramuscular and subcutaneous**
4. **Nasal, auricular, intestinal insufflations**
5. **All those listed**
6. **Local baths in the room with low-pressure ozone and ozone sauna**

**Answer: D**

1. **C.S. Specify what is the ozone generator from the following:**
2. **Поток 1**
3. **Amplipuls 4**
4. **Laser Helbo**
5. **Medozon Compact**
6. **Полюс 1**

**Answer: D**

1. **C.M. Specify what is ozone administration in dental prosthetics:**
2. **Denture cleaning and processing agent (microbes, streptococci, viruses)**
3. **Prepairing the surfaces alloys of partially mobilizable prostheses**
4. **Preparation of prosthetic bonds**
5. **Ozonated water is indicated as a rinse after preparing teeth for prosthetic constructions**
6. **Fixing prosthetic crowns**

**Answer: A, B, D**

1. **C.M. Specify the oral mucosa pathologies in which ozone is administered:**
2. **Traumatic ulcers**
3. **Oral aphthae**
4. **Herpes labialis**
5. **Periodontal pockets**
6. **Postextractional**

**Answer: A, B, C**

1. **C.S. Name the devices for galvanization and electrophoresis with medication:**
2. **All those listed**
3. **Wall galvanization device (AГН-32)**
4. **Portable galvanization device (AГП-33)**
5. **"ПОТОK-1"**
6. **Oral galvanization device (ГР-1M, ГР-2)**

**Answer: A**

1. **C.S. Name models of devices for performing diadynamotherapy (DDT):**
2. **СНИМ-1**
3. **Модель-717**
4. **"Тонус-1"**
5. **"Тонус-2"**
6. **all those listed**

**Answer: E**

1. **C.S. Specify models of devices for performing amplipulstherapy (MSC):**
2. **"Amplipuls-4"**
3. **"ПОТОK-1"**
4. **ЭОМ-1**
5. **ЭОМ-3**
6. **ОД-2М**

**Answer: A**

1. **C.S. Choose devices models to perform the fluctuorization method:**
2. **ЭОМ-1**
3. **"ПОТОK-1"**
4. **"Amplipuls-4"**
5. **Devices to perform analgesia АСБ-2-1, АСБ-2**
6. **Laser Helbo**

**Answer: D**

1. **C.S. Name the most commonly used laser devices:**
2. **Helbo laser**
3. **SIROLaser Blue (Sirona)**
4. **Waterlase Er, Cr: YSGG**
5. **Vector device in the treatment of periodontal diseases**
6. **all those listed**

**Answer: E**

1. **C.M. Specify the characteristic for the single-phase fixed current (DDC):**
2. **half-sinusoidal current with frequency 50 Hz**
3. **the current causes stinging and burning on the skin**
4. **the current causes contraction of muscle fibers and unpleasant high vibrations**
5. **it is a direct current with low power and tension**
6. **possesses the following effects: excitomotor, trophic, less antalgic**

**Answer: A, B, C, E**

1. **C.S. Specify the characteristic for the two-phase fixed current (DDC):**
2. **all those listed**
3. **similar in action to galvanic current, but distinguished by its pulsating nature**
4. **semi-sinusoidal current with an elongated rear front end and a frequency of 100 Hz**
5. **under the electrodes there is a diffuse vibrating sensation**
6. **has an analgesic effect mainly on superficial skin receptors**

 **Answer: A**

1. **C.M. Name the biological effects for the two-phase fixed current (DDC):**

**A. anticoagulant**

**B. increases skin conductibility**

**C. increase the sensitivity threshold**

**D. has an analgesic effect mainly on superficial cutaneous receptors**

**E. antispastic action and improves blood circulation**

**Answer: B, C, D, E**

1. **C.M. Specify the characteristic for the single-phase rhythmic current (syncopated rhythm):**
2. **single-phase current with frequency 50 Hz alternating with pauses (1s/1s; 1.5/1.5)**
3. **this current causes contraction and relaxation (at rest)**
4. **it is used for electrical muscle stimulation**
5. **has an analgesic effect**
6. **has anti-inflammatory effect**

**Answer: A, B, C**

1. **C.S. Specify the physical characteristic of the short period (SP) modulated diadynamic current:**
2. **a combination of single-phase and two-phase current alternating over 1,5 sec, 1 sec**
3. **gives burning, stinging, unpleasant vibrations that gradually become softer**
4. **locally improves blood circulation**
5. **produces excitation at first, then a moderate analgesic effect**
6. **all those listed**

**Answer: E**

1. **C.M. Name the biological effects for the modulated diadynamic current in short-period (SP):**
2. **Osteo-integration effect**
3. **locally circulation improves, occurs dilation of the vessels**
4. **increased skin temperature in the region of application**
5. **resorption effect**
6. **increase metabolic processes in tissues**

**Answer: B, C, D, E**

1. **C.M. Specify the physical characteristic modulated diadynamic current in long- period (LP):**
2. **slow alternation in 4s/8s**
3. **very pronounced analgesic effect**
4. **myorelaxant effect**
5. **it is often used to treat pain syndrome and degenerative processes**
6. **antioxidant effect**

**Answer: A, B, D**

1. **C.M. Name the physical characteristic of single-phase wavy current (DDC):**
2. **the rise, hold and pause period lasts 12 sec.**
3. **muscle fiber slowly contracts, then slowly relaxes**
4. **antibacterial effect**
5. **improves the rheologic properties of blood**
6. **it is indicated in electrical stimulation**

**Answer: A, B, E**

1. **C.S. Describe the physical characteristic for the two-phase wavy current (DDC):**
2. **rise - hold and pause period lasts 12 sec.**
3. **has a mild stimulating action, gives the sensation of a gentle massage**
4. **all those listed**
5. **increases blood circulation and metabolism**
6. **has analgesic action and is indicated in phantom pain**

**Answer: C**

1. **C.M. Describe the physical characteristic of modulated sinusoidal currents, type of operation 1 (modulated permanent/constant current):**

**A. possess antihypoxic effect**

**B. is indicated in chronic pathologies**

**C. modulated oscillations with frequency selection in the range 10-150 Hz**

**D. under the electrodes, vibrating sensations are determined**

**E. it excites nerve formations**

 **Answer: B, C, D, E**

1. **C.M. Describe the physical characteristic of modulated sinusoidal currents, current 2 (pause pulse):**
2. **It is characterized modulated oscillations with frequency of 10-150 Hz followed by a pause**
3. **the grow-hold-pause period lasts 8 sec.**
4. **in the machines are standard: 1:1,5 sec, 2:3 sec, 4:6 sec. during the impulse there is muscle contraction and during the pause there is relaxation**
5. **only used for electrical stimulation**
6. **occurs a slow alternation 4s/8s**

**Answer: A, C, D**

**226. C.M. Describe the physical characteristic of modulated sinusoidal current 3 (modulated and unmodulated oscillations):**

**A. exhibits series of oscillations modulated at a frequency of 10-150 Hz depending on the disease process**

**B. follows series with carrier frequency 5000 Hz**

**C. the current has weak exciting action**

**D. it is used for the treatment of dolor syndrome accompanied by irradiation**

**E. it is used only for electrical stimulation**

**Answer: A, B, C, D**

**227. C.M. Describe the physical characteristic of modulated sinusoidal current 4 (alternating frequency current):**

1. **it is characterized by series modulated oscillations of freely selectable frequency 1 - 150 Hz**
2. **followed by stable frequencies 150 Hz**
3. **nerve formations are excited**
4. **alternating 1:1.5 sec, 2:3 sec, 4:6 sec.**
5. **action: excitation, analgesic, increases trophic effect in tissues**

**Answer: A, B, D, E**

**228. C.M. Describe the physical characteristic of modulated sinusoidal current 5:**

**A. it is indicated in chronic pathologies**

**B. there is a slow alternation 4s/8s**

**C. it is characterized by series of oscillations with freely selectable frequency 10-150 Hz**

**D. followed by stable 150 Hz series and then pause**

**E. it has mild neurostimulatory and trophic action**

**Answer: C, D, E**

**229. C. M. The action of medical ozone on the human organism is determined by the effects:**

**A. antimicrobial effect**

**B. antioxidant**

**C. immunomodulator**

**D. antihypoxic**

**E. preventing bacterial plaque formation**

**Answer: A, B, C, D**

**230. C.S. The effects of medical ozone on the body are:**

**A. detoxification**

**B. all those listed**

**C. antifungal**

**D. stimulates metabolic processes**

**E. improves the rheologic properties of blood**

**Answer: B**

**231. C.S. Specify the amount of water in the human body:**

**A. 20 %**

**B. 50-60 %**

**C. 70-80 %**

**D. 100 %**

**E. 99,8 %**

**Answer: C**

**232. C.M. Name the physiotherapeutic methods used in dayly practice:**

**A. Electrotherapy with galvanic current (constant or direct current)**

**B. Electrotherapy with low frequency current (pulsed)**

**C. High frequency current electrotherapy**

**D. Electrogenic sleep**

**E. Cryotherapy**

**Answer: A, B, C**

**233. C.M. Name the most commonly used physiotherapeutic methods:**

**A. Light radiation**

**B. Laser therapy**

**C. Low frequency magnetic fields**

**D. Mechanical vibration**

**E. Hypothermia**

**Answer: A, B, C, D**

**234. C.M. The classification of electric current by frequency (variable) is:**

**A. Low frequency (1-1000 Hz)**

**B. varies between 10-150 Hz**

**C. medium frequency (1000-100000 Hz)**

**D. high frequency (above 100000 Hz)**

**E. maximum frequency 5000 Hz**

**Answer: A, C, D**

**235. C.S. Name the device to perform the d'arsonvalization procedure:**

**A. ЭЛОЗ-1**

**B. Тонус-1**

**C. Соллюкс**

**D. Искра-1**

**E. ДКС-2М**

**Answer: D**

**236. C.S. The concentration of ozone in ozonated physiologic solution is:**

**A. 10-80 mg/l mg/l**

**B. 4-6 mg/l**

**C. 20 mg/l**

**D. 5-60 mg/l mg/l**

**E. 5-7 mg/l**

**Answer: B**

**237. C.S. Ozonated oil has the following properties:**

**A. the therapeutic effect is achieved by peroxides formed in the oil under the action of ozone**

**B. keep in the refrigerator, in a dark vessel**

**C. vegetable oils are ozonized**

**D. it is administered internally and externally**

**E. all those listed**

**Answer: E**

**238. C.M. List the physiotherapeutic methods in the treatment of apical periodontitis:**

**A. ultrasound therapy**

**B. diathermocoagulation**

**C. laser therapy**

**D. magnetotherapy**

**E. hypothermia**

**Answer: A, B, C, D**

**239. C.M. The physiotherapeutic methods of treatment in apical periodontitis are:**

1. **Transcanal electrophoresis**
2. **Local d’arsonvalization**
3. **Microwave therapy**
4. **Vacuum massage**
5. **Ozone therapy**

**Answer: A, B, C, E**

**240. C.M. Name the physiotherapeutic methods used for analgesic and anti-inflammatory purposes in apical periodontitis:**

**A. d'arsonvalization non-contact**

**B. very high frequency electromagnetic alternating current**

**C. hydrotherapy**

**D. microwave therapy**

**E. therapy with infrared rays**

**Answer: A, B, D**

**241. C.S. Indicate physiotherapeutic treatment methods in multiple caries:**

**A. combination of medicaments with physiotherapeutic methods**

**B. electrophoresis with 1% sodium fluoride solution**

**C. per/oral administration of calcium gluconate or calcium glycerophosphate**

**D. all those listed**

**C. ultraviolet irradiation**

**Answer: D**

**242. C.M. Specify the particularities of ultraviolet therapy in the treatment of multiple caries:**

**A. 10 procedures per course of treatment is recommended**

**B. the duration of a procedure is 15 min**

**C. treatment starts with 0.25 biodoses, gradually increase the dosage up to 3 biodoses**

**D. treatment is carried out over one day**

**E. the total number of procedures is 25-30**

**Answer: C, D, E**

**243. C.M. Electrophoresis with medication in the treatment of hyperesthesia of hard dental tissues is performed with:**

**A. vitamin B1 and anesthetic**

**B. 1% sodium fluoride solution**

**C. calcium glycerophosphate**

**D. sea buckthorn oil**

**E. aminocapronic acid 5%**

**Answer: A, B, C**

**244. C.S. Electrophoresis with medication in erosion of hard dental tissue is performed with:**

**A. 10% calcium gluconate**

**B. heparin**

**C. vitamin C**

**D. vitamin B1**

**E. lidaza**

**Answer: A**

**245. C.S. In the treatment of wedge-form defect is recommended:**

**A. ultraviolet rays**

**B. electrophoresis with vitamin C, B1**

**C. electrophoresis with 1% sodium fluoride**

**D. galvanization of cervical sympathetic ganglia**

**E. all those listed**

**Answer: E**

**246. C.S. Indicate the method of diagnosis and treatment with significant role in pulpitis:**

**A. electrophoresis**

**B. microwave therapy**

**C. electroodontodiagnostics**

**D. ultraviolet therapy**

**E. infrared therapy**

**Answer: C**

**247. C.S. Indicate medicaments for phonophoresis in the treatment of patients with chronic recurrent aphthous stomatitis:**

**A. sodium chloride 0,09%**

**B. calcium chloride 1-10%**

**C. heparin and apricot oil in a 1:1 ratio**

**D. sodium fluoride 1%**

**E. sodium salicylate 1-10%**

**Answer: C**

**248. C.S. Specify medicaments in the treatment of ulcerative-necrotic processes:**

**A. ribonuclease**

**B. trypsin**

**C. chymotrypsin**

**D. deoxyribonuclease**

**E. all those listed**

**Answer: E**

**249. C.S. Indicate the proteolytic enzymes of the hydrolyase class used for the treatment of ulcero-necrotic processes:**

**A. chymotrypsin, trypsin**

**B. aloe extract**

**C. vitamin group B**

**D. calcium gluconate**

**E. sodium chloride 0,09%**

**Answer: A**

**250 C.S. Specify medicaments used in the treatment of trophic ulcers:**

1. **oil from fruit pits**
2. **sea buckthorn oil**
3. **rosehip oil**
4. **enzyme solutions**
5. **all those listed**

**Answer: E**