DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY
DEPARTMENT OF HYGIENE AND PROPHYLACTIC
TOXICOLOGY

HYGIENE AND ECOLOGY

TESTS FOR PREPARATION TO THE LICENSED INTEGRATED EXAM "STEP-2. MEDICINE"

MANUAL FOR VI-YEAR MEDICAL STUDENTS

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Manual "**Tests for preparation to the licensed integrated exam "Step-2. Medicine"** is prepared at the Department of Hygiene and Prophylactic Toxicology of Danylo Halytsky Lviv National Medical University by Associate prof. Ulyana B. Lototska-Dudyk (MD, PhD), Assistant prof. Svitlana I. Matysic (MD).

Tests for preparation to the licensed integrated exam "Step-2. Medicine" on the discipline "Hygiene and Ecology"/ Manual for foreign VI-year students of Medical Faculties of higher medical educational institutions / Edited by Associate prof. Ulyana B. Lototska-Dudyk (MD, PhD), Assistant prof. Svitlana I. Matysic (MD). – Lviv. – 2018. – 71p.

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Tests of primary banks of Testing Center of Ministry of Health of Ukraine and booklets of Licensing Examination "Step-2" 2011-2017 have been included in this collection.

The manual is prepared for VI-year foreign students of the Faculty of General Medicine and is presented as an additional educational guide for preparation to the Licensed Integrated Exam "Step-2. Medicine" on the discipline "Hygiene and Ecology".

The manual contains main English tests from the national bank of licensed integrated exams. The given tests correspond to the following requirements: to the state standards of higher medical education; to the aim of licensed integrated exams; to the structure of exam content; test items correspond to the requirements of their construction. Answer Key Chart is given at the end of the manual.

This book contains tests in the following educational blocks: General Hygiene, Hygiene of Labor, Municipal Hygiene, questions on quality of water and soil, Hygiene of Health Care Institutions, Hygiene of Nutrition, Hygiene of children and adolescents, Radiation Hygiene, etc.

The way of self-control presented in the manual is an important methodological element for preparation of senior students for Licensed Integrated Exam "Step-2.

The main recommendations for student on the effectiveness of preparation for the licensed integrated exam: students should attentively read the test item and find a correct answer from the given options. It is advisably to control the time as only one minute is given to answer on one single test item.

The manual has been considered and approved by the Methodical Commission of the Prophylactic Medicine (protocol № «___ « _____2018).

The supervisor of the issue is 1st Vice-Rector for scientific-pedagogical work of Danylo Halytsky Lviv National Medical University, Doctor of Medical Sciences, Professor Miechyslaw R. Gzhegotsky .

C O N T E N T

Chapter 1

GENERAL HYGIENE

1. Risk factors for lung cancer include all of the following EXCEPT:

A. Family history
B. Smoking
C. Occupational exposure
D. Air pollution
E. Radiation

2. The health of population, mostly depends on:

A. Way of life
B. Terms of external environment
C. Economic line-up
D. Heredity
E. Systems of health protection

3. What indexes characterize natural motion of population?

A. Natural increase
B. Migratory activity
C. Mean time of forthcoming life
D. Pendulum migration
E. Disability

4. Within the structure of the region`s population the share of persons ages 0 to 14 years is 25%, the share of persons ages 50 years and older is 30%. What concept most accurately describes this demographic situation?

A. Regressive type of population age structure
B. Progressive type of population age structure
C. Cohort reproduction
D. Immigration of population
E. Stationary type of population age structure

5. Give definition of maintenance of concept "morbidity":

A. Sum of cases of the first exposed diseases among the population
B. Sum of the registered illnesses among the population
C. Sum of visits of the population MPE
D. Sum of ill persons among the population
E. Sum of patients necessary treatment

6. What factors, from specified, influence as much as possible on a level of the general mortality of the population?

A. Age-sexual structure of the population and a condition of an

environment

B. Quantity of medical workers

C. Number of medical institutions

D. A climate-geographical position

E. A level of hospitalization of the population

7. What group of illnesses leads in the structure of reasons of population mortality?

A. Illnesses of the system of blood circulation

B. New formations

C. Illnesses of respiratory organs

D. Illnesses of the nervous system and sense-organs

E. Illnesses of digestive organs

8. In a nutrition survey of children in a village area in a developing country, the mean standardized weights for age were compared between boys and girls and a statistical significance test carried out. The test result was P = 0.23.

A. There is the an evidence of a true difference between boys and girls

B. There is strong evidence of a true difference between boys and girls

C. P is quite large, so the null hypothesis is true

D. P is not large enough to prove the null hypothesis as true

E. P is quite large, so there is probably a true difference between boys and girls

9. What methods of the collecting information is preferable to study at home for medical students of HIGH SCHOOL during training period?

A. Questioning

B. Interviewing

C. Selecting of materials

D. A method of the directed selection

E. Statistical

10. People, who don't have complaints, chronic diseases in anamnesis, functional rejections and any changes in organs and systems, are referred to the group:

A. Healthy (1-2 group)

B. It is conditional healthy

C. It is potential patients

D. Patients

E. Practically healthy

11. A local doctor keeps the record of reconvalescents after infectious diseases, people who are disposed to frequent and long-lasting diseases, patients with chronic pathologies. What category of patients should belong to the III health group?

A. People with chronic pathologies and disposed to frequent and long-lasting diseases

B. People with chronic diseases

C. Reconvalescents after infectious diseases and patients with chronic pathologies

D. All above mentioned categories

E. People disposed to frequent and long-lasting diseases

12. Local physician was charged with plan drafting concerning medical and preventive measures among the population in the area he is assigned to. What measures must he include in this plan as regarding primary prevention of illness?

A. Prevention of disease onset

B. Measures for increasing patient's life quality

C. Measures for increasing patient's life conditions

D. Referral of patients to sanatorium

E. Prevention of disease complications

13. A regional cardiologist is tasked with the development of a plan for medioprophylactic measures aimed at decrease of cardiovascular mortality. What measures should be planned for secondary prevention?

A. Prevention of recurrences and complications

B. Optimization of life style and living conditions

C. Referring patients for in-patient treatment

D. Referring patients for sanatorium-and-spa treatment

E. Prevention of diseases

14. Purpose of the secondary prophylaxis:

A. Avoiding risk factors, which at certain terms can result cause the origin, intensification or relapse of disease

B. Forming adequate relation of population to the system of health protection

C. Rehabilitation of patients losing possibility complete valuable vital functions

D. Activation of public funds and organizations in regard to medicine

E. Preventing from origins and influences of possible risk factors of diseases

15. A district doctor was commissioned with a task to work out a plan of treatment-and-prophylaxis actions for the population of his district. What actions of secondary prophylaxis must he include into this plan?

A. Prevention of disease complications

B. Disease prevention

C. Elimination of disease causes

D. Improvement of population's living conditions

E. Rehabilitation actions

16. Purpose of tertiary prophylaxis:

A. Rehabilitation of patients losing possibility complete valuable vital functions

B. Forming adequate relation of population to the system of health protection

C. Elimination expressed factors of risk, which at certain terms can result in the origin, intensification, relapse of disease

D. Activation of public funds and organizations in regard to medicine

E. Warning of origin and influences of possible risk factors of diseases

17. The man weights of 60 kg intakes 600 mg of nitrates with daily food ration. How many times does the real intake of nitrates exceed permissible?

A. 2 times

B. 5 times

C. 10 times

D. 60 times

E. 100 times

18. There is 80 mg of nitrates income with daily diet in the organism of 5-year-old child (body weight 20 kg). Define daily dose of the nitrate

A. 4,0 mg/kg of body weight

B. 1,0 mg/kg of body weight

C. 2,0 mg/kg of body weight

D. 3,0 mg/kg of body weight

E. 4,0 mg/kg of body weight

19. The median lethal dose of pesticide amorphous is 100 mg/kg. Evaluate substance according to the pesticides classification.

A. The severely toxic substance

B. The highly toxic

C. The moderately toxic substance

D. The minimally toxic substance

E. The nontoxic substance

20. During the exam on General Hygiene and Social Medicine the student said that the mountain sickness was caused by the low content of oxygen in the highlands air. Could you correct his response?

A. It's caused by decreasing of partial pressure of the oxygen

B. It's caused by high content of carbon dioxide

C. It's caused by solar radiation effect

D. It's caused by action of cold air

E. It's caused by peculiarities of perception of the mountain environment

21. The Transcarpathian region is characterized by constant high (over 80%) air moisture. Population of this region feels an intense cold in winter when the temperature is temperately low. What way of heat emission is more active?

A. Convection

B. Irradiation

C. Conduction

D. Evaporation

E. Radiation

22. A 40- year old inhabitant of the city of Kiev arrived in Abidjan (Ivory Coast) in July 1998. In an hour after arriving he lost consciousness after leaving the international airport terminal. After medical aid he was delivered to the hospital. His condition was characterized by the following signs: expressed adinamia, severe headache with nausea, hyperemied skin, wet; body temperature was rised up to $39^{o}C$; short breathing, tachycardia. The tourist has never been in hot climate countries. What is the cause of syncope?

A. Hot climate impact

B. New impressions

C. Tourist's age

D. Impact of flight

E. Poor health condition of the tourist

23. As preventive means is prescribed UV radiation in the photarium for adolescent living in Murmansk region (Russia). What device could be used to define biological and preventive dosage of UV radiation?

A. Biodosimeter

B. Ermeter

C. Ufimeter

D. Uviolmeter

E. Piranometer

24. There is a dynamic growth of number of congenital abnormalities such as central paralysis, newborns blindness, idiocy among the population that lives near to pesticides production enterprise. Which pollutant can causes the development of this pathology?

A. Mercury
B. Cadmium
C. Iron
D. Strontium
E. Chrome

25. Residents of an industrial community situated near factory suffer from increased morbidity rate caused by nervous and endocrine system conditions and kidney diseases. Blood test: decrease of sulfhydric groups content in blood. The pathologies developed can be caused by environment being polluted by the following:

A. Mercury
B. Lead
C. Cadmium
D. Boron
E. Chromium

HYGIENE OF LABOUR

1. In blacksmith-press shop physical work connected with unfavourable meteoconditions (air temperature is 40-50^{o}C, intensive infra-red radiation), one worker lost consciousness. Doctor of medical room confirmed the following: face pallor, wet skin, intensive perspiration, surface respiration with BR of 50 /min, HR of 100/min, delicate filling, body to 39,9^{o}C. Which diagnosis is the most possible?

A. Heat stroke
B. Sun stroke
C. Convulsion disease
D. Hypertensive disease
E. Angioneurosis

2. Giving the definition of "manufacturing microclimate" on an exam a student added the following components to the concept: temperature of the air, moisture of the air, speed of the air, ultraviolet radiation, atmospheric pressure and irradiation. Which components named by the student were wrong?

A. Pressure, irradiation, ultraviolet radiation
B. Irradiation
C. Atmospheric pressure
D. Atmospheric pressure and irradiation
E. All are right

3. In the thermal workshop of the ship-repairing factory the heat amount is 81 kcal/m^3 hr. Air temperature is 28-33°C, heat radiation up to 1800 kcal/m^2 hr, relative humidity 40-60%, air movement velocity 0,5-0,7 m/s. What occupational hazard can cataract be caused by?

A. Heat radiation.
B. Convection heat
C. Air temperature
D. Relative humidity
E. Air movement velocity

4. The senior crew is under action of low air temperatures (from -5°C up to -10°C). What main organs' diseases can be prevalent among them?

A. Respiratory system
B. Blood
C. Liver
D. Gastrointestinal tract
E. Cardiovascular system

5. In the workshop of garment factory effectiveness of the ventilation system and control on the microclimate conditions is supervised. What device can't be used to determine the air movement velocity in the section of ventilation pane?

A. Wing anemometer.
B. Electrical anemometer
C. Kata-thermometer
D. Stringed anemometer
E. Membranous anemometer

6. The worker of battery factory consults physician with complaints of weakness, headache, Status praesens objectivus: paleness, dark line on the gums, systolic murmur of the heart apex. In blood: microcytaric anemia, basophilic grainy RBC, reticulocytosis. Urine analysis: porfirinuria 0,25 mg/l. What conditions of occupational environment may the disease cause?

A. High lead content in the air of the working zone
B. High sulfuric acid content in the air of the working zoned
C. High alkaline content in the air of the working zone
D. High benzene content in the air of the working zone
E. High iron oxide content in the air of the working zone

7. An employee of a petrol station with 15 years of service record having contact with ethylated gasoline presents with memory impairmant, bradycardia, sensation of having a hair in the mouth, skin paresthesia. In this case, one can assume intoxication with the following substance:

A. Tetraethyl lead
B. Lead chloride
C. Nitrobenzene
D. Benzene
E. Organophosphates

8. Worker C. works at the chemical enterprise N, producing sulfuric acid for 6 year. It was defined that the content of sulfuric gas was in two times more than MAC. What protective equipment do you advise him to use?

A. Gas mask
B. Hose mask
C. ABA
D. Mask
E. Cotton facial bandage

9. A man, aged 37, working on the collective farm on sowing machine, was admitted to the infectious hospital with the clinical symptoms: miosis,

labored breathing, sweating. What kind of poisoning is it and what is the first aid?

A. Poisoning by PhOS. Treatment: atropine
B. Poisoning by lead. Treatment: tetacine calcii
C. Poisoning by the methylic alcohol. Treatment: ethylic alcohol
D. Poisoning by vapours of mercury. Treatment:unithiol
E. Seduxen

10. A 28-year-old man complains of skin rash and itching on the both of his hands. The condition persists for 1,5 years. The exacerbation of his condition he ascribes to the occupational contact with formaldehyde resins. Objectively: lesion foci are symmetrically localized on both hands. Against the background of erythema with blurred margins there are papulae, vesicles, erosions, crusts, and scales. What is the most likely pathology?

A. Occupational eczema
B. Erythema multiforme
C. Idiopathic eczema
D. Simple contact dermatitis
E. Allergic dermatitis

11. A worker of chemistry factory had occupational exposure to lead for 20 years. Total blood count: RBC of 3.5•1012/L, Hb of 100 g/L, reticulocytes of 3.3%, granulated erythrocytes of 40 on 50 fields of view; lead blood concentration of 0.042 mg%, porphyrinurea of 0.32 mg/L. What is the probable diagnosis?

A. Chronic lead intoxication, II stage
B. Chronic lead intoxication, I stage
C. Porphyria
D. Hereditary hemolytic anemia
E. Lead carrier

12. A worker of a printing house complains of abdominal pain, constipation during last 5 days. He presents a liliac line at the gingival-tooth border, tachycardia of 100/min, BP of 160/90 mm Hg, painful abdomen on palpation. Aminolevulinic acid in plasma is elevated. CBC shows signs of normocytic and normochromic anemia. What is the most probable diagnosis?

A. Plumbism, severe form
B. Mercurialism, severe form
C. Aluminium intoxication, severe form
D. Asbestosis, severe form

E. Cyanides poisoning, severe form

13. During the periodic medical examination an assembly fitter (works on soldering details) didn't report any health problems. Closer examination revealed signs of asthenic-vegetative syndrome. Blood included red blood cells with basophilic aggregations and a somewhat higher number of retsculocytes, urine had a high concentration of delta-aminolevulinic acid. The complex of symptoms indicates the initial stage of chronic intoxication with:

A. Lead
B. Tin
C. Manganese
D. Mercury
E. Ethanol

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E. Ethanol

15. A man works in casting of nonferrous metals and alloys 12 years. In the air of working area there was registered high content of heavy metals, carbon monoxide, and nitrogen. During periodic health examination the patient presents with asthenovegetative syndrome, sharp pains in the stomach, constipations, pain in the hepatic area. In urine: aminolevulinic acid and coproporphyrin are detected. In blood: reticulocytosis, low hemoglobin level. Such intoxication is caused by:

A. Lead and Lead salts
B. Zing
C. Nitric oxide
D. Tin
E. Carbon monoxide

16. A fitter of metallurgic factory with occupation exposure to high concentrations of mercury fumes during 16 years presents instability of

pulse and blood pressure, general hyperhydrosis, asymmetric innervations of facial muscles andtongue, positive subcortical reflexes, hand tremor on physical examination. Dentist consultation revealed paradontosis and chronic stomatitis. What is the most probable diagnosis?

A. Chronic mercury intoxication
B. Neuroinfection
C. Parkinson syndrom
D. Acute mercury intoxication
E. Mercury encephalopathy

17. The woman, aged 42, works at the mercury thermometers manyfacturing factory, complains of the headache, swoons, reduction of memory, small and frequent flutter of fingers of drawn hands, the eyelids and the tongue, bleeding gums, gingivitis. What should be used to eliminate of mercury from organism?

A. Unithiol
B. Pentoxil
C. Magnesium sulphate
D. Sodium hydrate of carbon
E. Seduxen

18. A sick 37 years old woman was admitted to the district hospital with symptoms of mercury-organic pesticide poisoning (she ate bread made from pickled seeds). Chose the antidote therapy in this case:

A. Unithiol
B. Atropin
C. Dipiroxim
D. Izonitrazin
E. Mecaptid

19. The 56 years old patient has worked at the alumium plant for more than 20 years. Within 3 last years he has developed loosening of teeth, bone and joint pains, piercing pains in heart area, vomiting. The previous diagnosis was:

A. Fluorine intoxication
B. Mercury intoxication
C. Lead intoxication
D. Phosphorus intoxication
E. Manganese intoxication

20. Periodical examination of a worker of a chemicals factory revealed a malignant neoplasm on the urinary bladder. This occupational disease was probably caused by contact with the following industrial poison:

A. Benzidine
B. Vinyl chloride
C. Nickel carbonyl
D. Asbestos
E. Arsenic

21. A 60-year-old boiler-man presents to factory's sectorial doctor with headache and tiredness. Lab tests: carboxyhemoglobin in blood. Poisoning with which substance is likely to cause formation of carboxyhemoglobin in blood?

A. Carbon oxide
B. Lead
C. Manganese
D. Chlorine
E. Mercury

22. During health assessment of car drivers and police officers on point duty, the physicians detected carboxyhemoglobin in the blood of the patients, weakened reflex responses, disturbed activity of a number of enzymes. Revealed professional health disorders are most likely to be associated with the effect of:

A. Carbon monoxide
B. Sulfurous anhydride
C. Aromatic hydrocarbons
D. Nitric oxide
E. Mental stress

23. A driver had been fixing a car in a closed garage and afterwards complained about headache, dizziness, nausea, muscle asthenia, sleepiness. Objectively: pulse and respiratory rate elevation, excitement, hypertension, delirium of persecution. What is the most likely diagnosis?

A. Intoxication with carbon oxide
B. Intoxication with ethyl gasoline
C. Posttraumatic encephalopathy
D. Hypertensive crisis
E. Asthenovegetative syndrome

24. The worker of the chemical enterprise visited a health provider with complaints of irritability, poor workability, insomnia, headache. Objectively: arhythmical tremor, asymmetry of tendous and periostal reflexes, pulse lability, steady red dermographismus. Signs of excretory gingivitis. The worker deals with amalgam producing.

A. Chronic mercury poisoning

B. Chronic lead poisoning
C. Chronic gasoline poisoning
D. Chronic aniline poisoning
E. Chronic cadmium poisoning

25. During assessment of work conditions at the mercury thermometer manufacture, content of mercury vapors in the air working area is revealed to exceed maximum concentration limit. Specify the main way of mercury penetration into the body:

A. Respiratory organs
B. Intact skin
C. Mucous tunics
D. Gastrointestinal tract
E. Damaged skin

26. The process of open-cut mining requires drilling and blasting operations, rock and ore excavation, transportation of ore to fragmentation and sorting factories end transportations of barren rock to slag-heaps, road building and maintenance, repair works. What factor of production is most important for miner`s health?

A. High content of dust in the air
B. Vibration
C. Noise
D. High content of explosion gas
E. Adverse microclimate

27. A 45-year-old coal miner complains of cough with black sputum, breathlessness on exertion, which occurred 4 years before. On physical examination, wheezes above both lungs, heart sounds are without changes, heart rate of 72 beats per minute. Chest radiography shows multiple, small irregular opacifications throughout both lungs. What is the most probable diagnosis?

A. Anthracosis, nodular, slowly progressing form, first stage
B. Silicosis, nodular, slowly progressing form, first stage
C. Siderosis, interstitial, slowly progressing form, first stage
D. Bissinosis, interstitial, slowly progressing form, first stage
E. Asbestosis, interstitial, slowly progressing form, first stage

28. In the sanitary inspection of labour conditions of miners it was found: air temperature - 26^{o}C, relative humidity 40%, dust pollution - 135 mg/m^{3}, silica content in the dust 45%. Miners work by the “dry” technology. What disease can cause occupational environment conditions?

A. Silicosis

B. Urine stones
C. Gallstones
D. Olivinosis
E. Pulmonary hemosiderosis

29. The man, aged 42, visited to the therapeutist with complaints of pricking pains in scapulas area, dyspnea on physical exertion, cough with discharge of small amount of sputum. For 10 years he hes been working in coal mining. On percussion-box-note was sound in the lower parts, on auscultation - a harsh breathing. There were no changes in the heart. Possible diagnosis?

A. Silicosis
B. Tuberculosis of lungs
C. Silicatosis
D. Bronchiectatic disease
E. Chronic bronchitis

30. The air of foundry worker's working zone contains condensation aerosol with dust particles sized 2 nm (90%), 2-5 nm (2%), over 5 nm (6%), below 2 nm (about 2%). Characterize the dust dispersivity:

A. Fine-dispersed
B. Median-dispersed
C. Coarsely dispersed
D. Ultrafine-dispersed
E. Mist

31. A worker at a porcelain factory who has been in service for 10 years complains of cough, dyspnea, ache in his chest. What occupational disease are these complaints most typical for?

A. Chronic dust bronchitis
B. Silicosis
C. Multiple bronchial asthma
D. Occupational bronchial asthma
E. Chronic cor pulmonale

32. Radiographic testing of a 52-year-old worker of an agglomeration factors (28 years of experience, the concentration of metal dust is 22-37 mg/m^3) shows mind from of interstitial fibrosis with diffused contraston well-defined small nodular shadows. The patient has no complaints. Pulmonary function is not compromised. What is the primary diagnosis?

A. Siderosis
B. Anthracosis
C. Silicosis

D. Silicatosis

E. Anthraco-silicatosis

33. Examination of an electric welder with 15 years of service record revealed dry rales in the lower lung fields. Radiograph shows diffuse nodules sizes 3-4 mm in the middle and lower lung fields. What disease can be suspected?

A. Heavy-metal coniosis

B. Silicatosis

C. Carbon pneumo coniosis

D. Silicosis

E. Bronchitis

34. A 40-year-old woman who has worked in a weaving branch for 10 years, complains of frequent headache, sleeplessness, irritability, fatigue, tiredness. Physical examination revealed instability of blood pressure, internal organs are without changes. What is the most probable diagnosis?

A. Noise-induced disease.

B. Hypertension.

C. Atopic bronchial asthma.

D. Asteno-vegetative syndrome

E. Encephalopathy.

35. A 51-year-old female is a weaving factory worker with 15 years of service record. During a regular preventive examination she complained of frequent headaches, poor sleep, tingling in the heart, irritability, rapid fatigability, hearing impairment. For years, the noise level has exceeded the maximum allowable concentration by 10-15 dB. A year ago, the patient underwent a course of treatment for essential hypertension. Specify the most likely diagnosis:

A. Noise disease

B. Neurasthenia

C. Asthenic-vegetative syndrome

D. Arteriosclerotic encephalopathy

E. Essential hypertension

36. The work in conditions of electromagnetic waves influence can cause the dynamic abnormalities of certain body systems. Which systems are the most sensitive to the action of electromagnetic waves of radio-frequency range?

A. Nervous and cardiovascular systems

B. Digestive and respiratory systems

C. Cardiovascular and respiratory systems

D. Cardiovascular and musculoskeletal systems

E. Nervous and digestive systems

37. In the air-repair work repairmen of planes fuselage is carried out. The levels of industrial noise on the working places constitute 95-97 dBA. The analysis of noise spectrum showed tones with frequency of 100 Hz and higher. Which apparatus was used for the experiment?

A. Noisemeter

B. Audiotester

C. Actynometer

D. Vibrotester

E. Anemometer

38. The worker of "Bios" enterprise producing laundry detergents consults her health provider with complaints of rash at the opened areas of the face skin, neck and hands. What prevention is necessary?

A. To use hermetic equipment

B. To change assortment of the production

C. To use air conditioning

D. To use individual protective equipment

E. Misemploy her to fire

39. The worker of her blacksmith shop consults his physician about complaints of poor hearing, fatigability, headache. Tonal audiography has been conducted. There are signs of sensitive surditas on the audiogram. What prevention could you advise?

A. Use antiphones

B. Hermetize the equipment

C. Tat caviar

D. Wear rubber shoes

E. Change managers at the enterprise

40. The worker of 48 years old in the process of production. The is exposed to infrared radiation severity of thermical action of the infrared radiation on the human organism depends upon:

A. Intensity

B. The length of the wave

C. Action's direction

D. Wave's amplitude

E. Frequent spectrum

41. An aircraft factory processes materials with use of lasers. It is determined that the device radiates in the light spectrum and that level of

laser radiation at the workplaces exceeds the alarm level. Specify, what organs will be affected in the first place?

A. Eyes
B. Spleen
C. Liver
D. Skin
E. Kidneys

42. The patient has worked for 13 years as a bulldozer driver. He complains of dizziness, headache, finger dumbness and pain at night. On examination, tactile sensitivity of peripheral type disturbs him, ankle muscles are painful, and pulsation on a dorsalis pedis is weak. What is the most probable diagnosis?

A. Vibration disease
B. Raynaud's disease
C. Syringomyelia
D. Atherosclerosis obliterans
E. Periarteritis nodosa

43. At a machine-building factory the casts are cleaned by means of abrasion machines that are a source of local vibration. What are the most efficient preventive measures for preventing harmful effect of vibration on workers' organisms?

A. Use of gloves that reduce vibration
B. Hand massaging
C. Warm hand baths
D. Giving sanitary instructions to the workers
E. Preliminary and periodical medical examinations

44. A patient complained about problems with pain and tectile sensitivity, pain in the distal phalanges at the end of the working day. He works at a factory with mechanical devices. What pathology can be suspected?

A. Vibration disease
B. Caisson disease
C. Overwork symptoms
D. Noise disease
E. Hypovitaminosis of B_1

45. A student analyzes noise level of cold-pressing process. What device should be applied for this hygienic study?

A. Noise and vibration analyzer
B. Noise analyzer
C. Sound tester

D. Actinometer

E. Pyranometer

46. During the medical examination a port crane operator complained of dizziness, nausea, sense of pressure against tympanic membranes, tremor, dyspnoea, cough. He works aloft, the work is connected with emotional stress. Workers are affected by vibration (general and local), noise, ultrasound, microclimate that is warm in summer and cool in winter. What factor are the worker's complaints connected with?

A. Infrasound

B. Noise

C. Vibration

D. Intensity of work

E. Microclimate

47. Periodic medical examination are carried chack out for:

A. Revelation of some diseases at early stages

B. Inspection of the certain contingents of workers at reception on the robot

C. Periodic inspection of the certain contingents of workers

D. Directions on MSEC

E. Revelation and formations of contingents for dispensary supervision

48. Working conditions of a building company worker are characterized by cooling microclimate effect, silica-containing dust, caustic alkali (quicklime) and noise. What medical expert should be the chief of the commission that periodically examines the workers of the mentioned category?

A. Therapeutist

B. Ophthalmologist

C. Neurologist

D. Dermatologist

E. Otolaryngologist

49. Administration of a plant producing red lead paint intends to form a group of medical specialists
for periodical medical examinations. What specialist must be obligatory included into this group?

A. Neuropathologist

B. Gynecologist

C. Psychiatrist

D. Dermatologist

E. Otolaryngologist

50. A worker is taken on the staff and undergoes medical preventive inspection, results of which have allowed him to work in this industry. What is the type of medical preventive inspection that is used in this case?

A. Preliminary

B. Special

C. Routine

D. Periodic

E. Systematic

51. Professiogram of assembly shop of the automobile plant includes the following elements: conveyer, assembly works with power 15 W/hr, the number of the operations – 3 per minute. What is the criterion for work intensity in these conditions?

A. Monotony

B. Power of work, W

C. Emotional pressure

D. Intellectual intensity

E. Operative memory volume

52. On physiologic-sanitary examination of railway department work it was revealed that loaders work is of III degree of difficulty. They unload vagons with sand, manually break coagulated mass by shovel and shift it. What criterion was used to evaluate work of loaders?

A. Maximum load weigh which is shifted

B. Value of static loading for the shift

C. Time of active activities, % to the shift duration

D. Time of passive observation, % to the shift duration

E. Intellectual efforts

53. While working a 55-year-old man occupied in coxo-chemical industry can't do without water. How can drinking regime of this worker be organized?

A. Use 100 ml drinks and water every 25-30 minutes.

B. Use drinks and water 10 minutes before meals

C. Use drinks and water before thebeginning of the work

D. Use drinks and water after break

E. Use drinks and water after the beginning of the work

54. The hospital for occupational diseases examined a worker who worked at a concentration factory and diagnosed him with chronic dust bronchitis. The case is investigated by a commission including the representatives of: the factory, clinic, territorial SES, department of Social Insurance Fund,

trade union. According to the "regulation on investigation of…", the commission should be headed by the representative of the following authority:

A. Territorial SES
B. Factory
C. Social Insurance Fund
D. Trade union
E. Hospital

55. An emergency situation at a chemical plant caused acute occupational intoxication. A doctor who revealed the case of "acute occupational disease (intoxication)" must notify the following authority:

A. Sanitary and epidemiological station
B. Ministry of Public Health of Ukraine
C. Plant administration
D. Trade union committee of the plant
E. Medical unit of the plant

56. For a current year of 10% among workers of an institution haven't been ill at all, 30% have been ill once, 15% - twice, 5% - 4 times, the rest - 5 and more times. What is the percentage of workers relating to the I health group?

A. 55%
B. 10%
C. 40%
D. 60**%**
E. 22**%**

57. A 42 year old metalworker has been working on the turning machine producing heavy large-size parts for 5 years. His work requires usage of hand and pedal levers that involves considerable physical force. What osteoarthrosis preventive means should be recommended?

A. To limit physical work
B. To administer protein-and-carbohydrate diet
C. To administer protein-and-vitamin diet
D. To improve health at the Black sea coast
E. To go in for weightlifting

QUESTIONS OF MUNICINAL HYGIENE

1. In December days (calm and mist) the respiratory system diseases and diseases accompanied by signs of general intoxication in the region where thermoelectric power station works on the solid fuel increased. The mortality of people over 60 also increased. Which factor may probably caused the toxic effects?

A. Suspended substances (dust)
B. Lead
C. Low temperature
D. Air humidity
E. Photooxidants

2. A pollutant of atmospheric air among severally toxic substances. What is the possible action of this substance?

A. Carcinogenic
B. Irritation
C. Sensibilization
D. Inflammation
E. Worsening of weather-caused diseases

3. Atmospheric air of an industrial centre is polluted with the following wastes of metallurgical factory: sulphuric, nitric, metal, carbon oxides that have negative influence upon the inhabitants' health. The effect of these hazards can be characterized as:

A. Combined
B. Associated
C. Mixed
D. Adjacent
E. Complex.

4. On the 12^{th} of April, 2000 in Odessa there was variable cloudness and in-and-out precipitations, atmospheric pressure 755 mm of Hg, wind 8,5 m/s, daily overfall of temperature 7^{o}C, atmospheric pressure 10 mm Hg. What is the medical type of the weather?

A. Requiring medical control
B. Very favorable
C. Favorable
D. Severe medical control
E. Acute

5. In the assessment of microclimate it was defined that outer corner with

one-meter height the temperature was 18°C, in the middle - 19°C, in inner corner - 20°C. What overfall by the horizontal is the maximal admissible?

A. 2°C
B. 1°C
C. 1,5°C
D. 2,5°C
E. 3°C

6. In the assessment of microclimate it was defined that air temperature 10 cm above the floor was 17°C, at the 1 m - 19°C, at the 1,5 m - 20°C. What overfall by the vertical is the maximal admissible?

A. 2,5°C
B. 1°C
C. 1,5°C
D. 2°C
E. 3° C

7. Bacterial analysis of air in a living space in winter period by meanes of Krotov`s apparatus revealed that total number of microorganizms in 1 m³ of air was 7200. What is the allowed number of microorganisms for the air to be characterized as "pure"?

A. Up to 4500
B. Up to 4500
C. Up to 5500
D. Up to 3500
E. Up to 2500

8. Student H. is estimating the noise rate in the punching workshop. What device is he using?

A. Phonovibrometer
B. Analysator of noise spectrum
C. Audiotester.
D. Actinometer
E. Piranometer.

9. A student has to measure the speed of air motion in experimental laboratory. What device should he use?

A. Cathethermometre
B. Asman`s psychrometer
C. Hair hygrometer
D. Augustus psychrometer
E. Anemometer

10. The student has following devices: Geiger counter, Ebert counter, Krotov's apparatus, Mischuk device, Ebert device. What device can he use to assess air germ pollution?

A. Krotov's apparatus
B. Ebert's device
C. Geiger's counter
D. Mischuk's device
E. Ebert's counter

11. The rational planning of city districts provides its division according to the functional signs into 4 areas:1) industrial are; 2)suburban are; 3) traffic area. Name the fourth area:

A. Selitebouns area
B. Sport area
C. Cultural area

12. 6 people live in a modern flat with the total area of 60 m^2. There are TV-video equipment, radios, microwave ovens, computer. The residents of the flat complain of bad health, occasional headaches, arrhythmia, conjunctivitis. What is the most likely cause of this condition?

A. Electromagnetic fields
B. Anthropotoxins
C. Formaldehyde
D. Tetrachlor plumbum
E. Carbon dioxide

QUESTIONS OF WATER QUALITY

1. The abnormalities of bone system development, the delay of fontanelle over-growth, the delay of teeth were observed among children of N-city. Which surplus micro-element contained in the drinking water can cause these changes?

A. Strontium
B. Calcium
C. Cadmium
D. Arsenic
E. Magnesium

2. In drinking water samples selected after purification and disinfected by gaseous chlorine the following was revealed: chloroform and threechloracetic acid in concentration three times more than their MAC. What disease may probably develop as a result of prolonged intake of this water?

A. Stomach cancer
B. Urolithiasis
C. Hypertensive disease
D. Stroke
E. Anemia

3. In drinking water samples the following substances were revealed: copper, manganese, iron, lead, chlorphenol on the level of their MAC. Which chemical substance mentioned above is limited for sanitary-toxycological index of harmfulness?

A. Lead
B. Iron
C. Manganese
D. Copper
E. Chlorphenol

4. The populated area has the water supply from artesian chink. Lab analyses data: hardness - 5,5 mg-eq/l, colority - 20^{o}, nitrates - 20 mg/l, smell - 1 score, taste - 1 score, fluorine - 4,0 mg/l, coli-tytre - 400 ml. What disease would result water consumption?

A. Fluorosis
B. Urine stones
C. Water-nitrate methemoglobinemia
D. Chronic gastritis
E. Syderoachrestic anemia

5. A student has got the following examination task. The interlayer waters are known to be so much mineralized that they can't be used for municipal water supply with no treatment. In case of soil pollution by waste products and sewage. There is a danger of subsoil water pollution with pathogenic microorganisms. Name the source of water supply to be the best for middle and small water pipes.

A. Interlayer waters
B. Subsoil waters
C. Atmosphere waters
D. Surface waters
E. Springs

6. A military unit after long march stopped for 3-day's rest in the vicinity of a inhabited locality. The sanitary epidemiological reconnaissance found several water sources. It is necessary to choose the source complying with the hygienic standards for potable water in the field conditions.

A. Artesian well water
B. Water from melted snow
C. Spring water
D. Rain water
E. River water

7. After a lengthy march an army regiment has set camp for 3 days near a settlement. Sanitary – hygienic investigation detected several water sources. Choose the source that would satisfy the demands for potable water the most under the given field conditions:

A. Artesian well
B. Rain water
C. Melt water
D. Brook
E. River

8. In river-side urban community there was an outbreak of hepatitis type A possibly spread by water. What indexes of river water quality can confirm this theory?

A. Coliphage number
B. Fecal coliform bacteria index
C. Colibacillus index
D. Oxidability
E. Non-icteric leptospirosis agent

9. A mineshaft is situated on the territory of homestead land, it is 20 m away from the house, 10 m – from the toilet and 15 m – from the

neighbour's house. What is the smallest distance that, according to the sanitary code, should be established between the well and the source of probable water pollution?

A. 15 m
B. 25 m
C. 30 m
D. 10 m
E. 20 m

10. The group of Ukrainian tourists visited Malaysia. By WHO statistics this country has a high rate of morbidity owning to water-borne infections. What way of water disinfecting should they use?

A. Boiling
B. Ozonizing
C. Freezing
D. Iodination
E. UV irradiation

11. For preventive purposes the student drinks mineral waters. What mineral water can be used for everyday drinking?

A. Potable
B. Arsenic
C. Boric
D. Hydrosulfurous
E. Radon

12. Student B. lives in the canalized house in the flat with complete set of sanitary equipment (WC, bath, shower, centralized hot water supply). What volume of water does he use daily?

A. 160-200 l
B. 10-15 l
C. 50-100 l
D. 250-300 l
E. 400-500 l

13. Tooth decay morbidity among people living in town N is 89%. They drink water containing 0,001 mg/l fluorine. What prevention could you advise?

A. Water fluorination
B. Brush teeth
C. Inhalate fluorine
D. Eat more vegetables
E. Use sylantes

14. Examination of a group of persons living on the same territory revealed the following common symptoms: dark-yellow pigmentation of the tooth enamel, diffuse osteoporosis of bone apparatus, ossification of ligaments and joints, functional disorders of the central nervous system. This condition may be caused by the excessive concentration of the following microelement in food or drinking water:

A. Fluorine
B. Nickel
C. Iodine
D. Copper
E. Cesium

15. Caries morbidity rate is 89% among residents of a community. It is determined that fluorine content in water is 0,1 mg/l. What preventive measures should be taken?

A. Tooth brushing
B. Fluorine inhalations
C. Introduce more vegetables to the diet
D. Sealant application
E. Water fluorination

16. The artesian chink is situated out off the residential area, the nearest territory is free of pollution and covered. Water analysis: taste 1 score, oxidation ability 0,5 mg O_2/l, coli-tytre 500 ml, smell 0 scores, ammonia traces, transparence 40 cm, colority 10 cm, microbic number 28, nitrites traces, nitrates 92,0 mg/l. What disease can be caused by drinking this water?

A. Water-nitrate methemoglobinemia
B. Syderoachrestic anemia
C. Talassemia
D. Dysentery
E. Gastritis

17. The disease a methemoglobinemia in children is incorporated in the baby-house. It is established, that child's food mixtures contains a drinking-water. Excess of what chemical substance in a drinking-water can cause this disease?

A. Nitrates
B. Chlorides
C. Sulfates
D. Lead
E. Mercury

18. During laboratory research of drinking-water of the well, which is located in a settlement, it is set: chlorides - 140 mg/dm^3, sulphates - 246 mg/dm^3, fluorine - 1,1 mg/dm^3, nitrates - 90 mg/dm^3, iodine - 3,5 mg/dm^3. What endemic disease can occur in those who drank from the well?

A. Methemoglobinemia
B. Endemic caries
C. Endemic fluorosis
D. Urolithiasis
E. Endemic goitre

19. The mountain lake is situated out off the residential area. The forest is around, shores are sandy and stony. Water analysis: smell, taste 1 score, ammonia and nitrites no, color – colorless, nitrates - 40 mg/l, chlorides - 50 mg/l, oxidation ability - 3 mg O_2/l, hardness - 10 mg-eq/l, microbic number - 65. Could this water be used for drinking?

A. Water is suitable for drinking
B. Water is suitable only for technical purposes
C. Water is suitable after boiling
D. Water is not suitable for using
E. Water can be used after settling

20. In the well situated at the outskirts of the village in 60 m from the cattle farm it was found nitrogen compounds in concentrations: ammonia - 0,9 mg/l, nitrites - 0,1 mg/l, nitrates - 52 mg/l. What pollution of water is typical according to this analysis?

A. Continuous
B. Fresh
C. Recent
D. Old
E. Latent

21. In the country with decentralized water supply (shaft wells) it was registered elongation of fonticuli healing, poor bones and teeth development, retardation among infants. They are typical signs for presence in water of:

A. Strontium
B. Lead
C. Fluorine
D. Iodine
E. Arsenium

22. For the water-supply city water which contains in the composition: fluorine - 2,0 mg/l, nitrates - 43 mg/l, chlorides - 250 mg/l, iron - 0,2 mg/l,

residual chlorine - 0,5 mg/l. Is used for water supply water of such chemical composition in a population can arise up:

A. Fluorosis
B. Thyrotoxicosis
C. Endemic goitre
D. Decay of teeth
E. Methemoglobinemia

23. The uneven colour of teeth was marked in population of districts of city N. There were white spots, transversal brown bars on front teeth. A drinking-water from a long hole was suspected according to the these symptoms. What components of water could be reason of violation of teeth enamel mineralization?

A. F
B. Fe
C. Ca
D. Mg
E. I

24. Some of the population of a city district have uneven teeth colour. The individuals have white spots, transverse brown stripes on the incisors. Occurrence of these symptoms is associated with the quality of drinking water from a deep well. Which of the cause of the disease?

A. F
B. J
C. Fe
D. Mg
E. Ca

25. Examination of a group of living on the same territory revealed the following common symptoms: dark-yellow pigmentation of the tooth enamel, diffuse osteoporosis of bone apparatus, ossification of ligaments and joints, functional disorders of the central nervous system. This condition may be caused by the excessive concentration of the following microelement in food or drinking water:

A. Fluorine
B. Copper
C. Nickel
D. Cesium
E. Iodine

26. Changes of mineral composition of water can be principal reason of diseases on:

A. Fluorosis
B. Convulsive illness
C. Hepatitis B
D. Avitaminosis
E. Water fever

27. To determine the sufficient water decontamination, the amount of residual chlorine which is left after chloration is taken into consideration. What is the method of qualitative determination of residual chlorine in drinking water after its chloration?

A. Adding potassium iodide and starch to water samples
B. Filtration of the water sample by up to rosy colour of solution Greese reagent
C. Adding acid to the water sample
D. Adding aluminium sulfuric oxide to the water sample up to the formation of hydroxide flakes
E. Adding manganese peroxide to the water sample

28. Poorly refined wastes of an industrial plant are usually thrown into the river that pollutes drinking water. It causes perishing of some microorganisms, disturbing processes of water self-purification and worsens its quality that can have negative influence upon people's health. How is this effect of environmental factor's called?

A. Indirect
B. Combined
C. Direct
D. Complex
E. Associated

29. In the first time in 1946 the chronic poisoning reason happened in Japan was caused by cadmium poisoning for using river water for irrigation of the rice fields. What name is carried by this poisoning?

A. Illness of itay-itay
B. Minimata disease
C. Prassad disease
D. Keshan disease
E. Saturnizm

30. In the river N. water which is used for the water-supply of city, maintenance of cadmium exceeds maximum allowablle concentration in 8-10 times. What disease of chemical origin can arise up for inhabitants?

A. Illness of itay-itay
B. Minimata disease

C. Prassad disease

D. Keshan disease

E. Saturnizm

31. During the planned sampling from the reservoirs of clean water at the water-supply station the followings results are got: odour is 2 levels, taste is 2 levels, colour – 19^o, turbidity - 0,5 NU, E.coli - 0, microbial number - 80, residual free chlorine - 0,5 mg/dm^3. Does quality of water correspond to the hygienic standards?

A. Corresponds to all of indexes

B. Does not answer on all of indexes

C. Does not answer after maintenance residual a chlorine

D. Does not answer on perceptive indexes

E. Does not answer on microbiological indexes

32. Analysis of water selected from a well is conducted. It is set: colour - 15^o, odour is 3 leves, hardness - 10 mg·eq/l, oxidisability - 4 mgO_2/l, maintenance of nitrogen ammoniacal - 0,2 mg/l, nitrogen of nitrates - 0,05 mg/l, chlorides - 80 mg/l, microbial number - 150, E.coli - 5. Ground a hygienical conclusion in relation to quality of drinking-water.

A. Water does not correspond to hygienic requirements, it is necessary to disinfect

B. Water correspond to hygienic requirements

C. Water does not correspond to hygienic requirements, it is necessary to filtrate

D. Water does not correspond to hygienic requirements, it is necessary to desalinates

E. Water does not correspond to hygienic requirements, its decontamination is needed

33. Laboratory analysis of water is conducted from well. Results are got: a odour is 2 levels, sulphates - 250 mg/dm^3, chlorides - 250 mg/dm^3, oxidisability - 4 mg O_2/dm^3, E.coli - 0, microbal number - 100, fluorine - 1,5 mg/dm^3, nitrates - 10 mg/dm^3, eggs of helmints - 8 in 25 dm^3 of water. What water does not correspond to?

A. Parazitologic

B. Perceptive

C. Toxicological

D. Microbiological

E. Physical and chemical

34. For a water supply to the habitant of village N. it was decided to build a water-pipe from the river. Preliminary the labtest of water from the river

showed the following results: colour of water - 16°, odour - 2 levels, general hardness - 5 mg-eq/dm^3, maintenance of iron - 2,0 mg/dm^3, of the fluorine - 0,8 mg/dm^3, nitrates - 25 mg/dm^3, chlorides - 180 mg/dm^3. Water treatment on water-pipe is needed after maintenance:

A. Iron
B. Nitrates
C. Salts of hardness
D. Fluorine
E. Chlorides

35. In a rest-home, building is planned local water-pipe. Source - artesian water. Result of analysis of test of water: a odour is 2 levels, taste is 2 levels, content of fluorine, - 1,5 mg/dm^3, iron - 3,0 mg/dm^3, general hardness - 7 mg-eq/dm^3, total dissolved solids - 980 mg/dm^3. What special method of treatment of water must be applied?

A. Iron elimination
B. Softening
C. Fluoridation
D. Clarification
E. Desaltation

36. At the laboratory research of drinking-water from an artesian hole determined, that colour of water - 20°, turbidity - 0,5 mg/dm^3, odour and taste is 1 level, general hardness - 13,5 mg·eq/dm^3, fluorine - 1,5 mg/dm^3, oxidation - 0,7 mg/dm^3, E.coli - 0, microbial number - 10. What method of cleaning must be applied for improving drinking-water quality?

A. Softening
B. Clarification
C. Defluoridation
D. Disinfestation
E. Desalination

37. During laboratory control of water quality in the river K. because of its contamination by industrial flow waters such concentrations of contaminants: lead - 0,03 mg/dm^3 (MAC of 0,03 mg/dm^3, class of danger II), molybdenum - 0,5 mg/dm^3 (MAC of 0,25 mg/dm^3, class of danger II). Expect the value of effect of the combined action of hazardous substances.

A. 3
B. 03
C. 0,5
D. 1,0
E. 5

38. In order to prevent the environmental pollution in the place N, the artificial methods of sewage disposal, biological purification, chlorination and compulsory laboratory control are planned. Which one of the main artificial sewage disposal methods isn't taken into account?

A. Mechanical purification
B. Rechlorination
C. Filtration
D. Irrigation
E. Areas of sewage disposal

39. The waste treatment complex is situated 1000 m away from the residential area. The area is hygienic, the technology of treatment is proper. They use sanitary space for growing of ray grass. People living in the nearest households complain of constant unpleasant smell, plenty of flies. There is high morbidity of intestinal diseases. Specify the probable causes of unsatisfactory epidemiological situation.

A. Sanitary space is not used properly
B. Improper waste chlorination
C. Absence of the vegetations at the waste treatment station
D. Improper examining of the station worker
E. Emergency outlets of the impure wastes

40. For waste treatment chloric lime with 5% content of active chlorine is offered. What content of active chlorine is admissible for disinfecting at least?

A. 20%
B. 1%
C. 5%
D. 10%
E. 15%

41. A two-storey house in the town is being built. Water pipes and canalization are absent. What type of lavatory is the best for these conditions?

A. Lavatory with aerated tank
B. Chemical lavatory
C. WC
D. Public lavatory
E. Field lavatory

QUESTIONS OF QUALITY OF SOIL

1. It is necessary to carry out the investigation and to establish the norm of exogenous chemical substance N contents in soil. In order to create experimental conditions it is necessary to use such type of soil which has maximal filtrative and minimal sorption and soaking peculiarities. What type of soil is it necessary to use?

A. Sandy
B. Stony
C. Loamy
D. Peaty
E. Brackish

2. A 45-year-old patient complains of fever up to 40°*C*, general weakness, headache and spasmodic contraction of muscles in the region of a shinwound. The patient got injured five days ago when tilling soil and didn't get medical help. What kind of wound infection can be suspected?

A. Tetanus
B. Erysipelas
C. Gram-negative
D. Gram-positive
E. Anthrax

3. In order to reduce weed growth on agricultural land, some herbicides have been used for a long time. In terms of environmental stability these herbicides are rated as stable. Specify the most likely route of their entry into the human body:

A. Soil-plants-humans
B. Soil-animals-humans
C. Soil-insects-humans
D. Soil-protozoa-humans
E. Soil-microorganisms-humans

4. Basing upon the data of laboratory assessment of sanitary state of soil in a certain territory, the soil was found to be low-contaminated according to the sanitary indicative value; contaminated according to the coli titer; low-contaminated according to the anaerobe titer (Cl. Perfringens). This is indicative of:

A. Fresh fecal contamination
B. Insufficient intensity of soil humification
C. Old fecal contamination
D. Constant entry of organic protein contaminations

HYGIENE OF HEALTH CARE INSTITUTIONS

1. Building of hospital is planned in a settlement. To determine land for construction it is necessary to pay attention to:

A. Bed fund of hospital
B. Category of settlement
C. Territorial sizes of settlement
D. System of hospital building
E. Level of morbidity of population

2. In the hospital of the mixed system of building select the areas of main bildings, out-patient department, obstetric-gynaecological department, infectious department, economic buildings, department of pathomorphology anatomy, hospital garden with the belt of the green planting round an area re selected? What maximal percent of building of hospital area must be?

A. 15 %
B. 10 %
C. 20 %
D. 25 %
E. 35 %

3. A city somatic hospital with 300 beds has a main building with the therapeutic and surgical departments. Several separate buildings: the maternity, pediatric and radiologic departments that are connected to the main building by underground walkways and above-ground covered skybridges. Specify the building system of the hospital:

A. Central-unit
B. Decentralized
C. Combined (mixed)
D. Centralized
E. Free

4. It's planned to construct multifield a new hospital in one of the central city districts. What building type is the most appropriate in this case?

A. Centralized and blocked
B. Centralized
C. Decentralized
D. Mixed
E. Blocked

5. All departments and subdivisions of a district hospital having 300 beds are disposed in the separate one- and two-storey buildings. Which is the

type of hospital construction?

A. Decentralized
B. Centralized
C. Centralized-decentralized
D. Mixed
E. Centralized-sectional

6. A city somatic hospital with 300 beds has a main building which houses the therapeutic and surgical departments. Several separate buildings house the maternity, pediatric and radiologic departments that are connected to the main building by underground walkways and above-ground covered skybridges. Specify the building system of the hospital:

A. Central-unit
B. Combined
C. Free
D. Decentralized
E. Centralized

7. A land area for building of medical-preventive institutions must meet the requirements which are claimed to the house-building. This concerns to:

A. All which are marked
B. Relief of a land
C. Providing of the flow of the atmospheric rainfall
D. Level of subsoil waters
E. For all which are marked except

8. For providing health care for people living in a new urban district it was planned to build a new hospital for 550 beds, situated at the outskirts. The furthest buildings will be at 32 km from hospital. What service radius is the maximum for the urban hospitals?

A. 15 km
B. 5 km
C. 10 km
D. 20 km
E. 30 km

9. The major repair of a hospital included renewal of colour design of hospital premises because it is of great psychological and aesthetical importance; and so the walls of patient wards will be painted under consideration of:

A. Windows orientation
B. Hospital profile

C. Diseases of patients who will be staying in these wards
D. Wall reflection coefficient
E. Creation of cozy atmosphere

10. In the surgical unit of the hospital the purulent surgery department is placed on the 1st floor, thoracic surgery – on the 2nd floor, general surgery – on the 3 rd floor and gynecological – on the 4th. Could you find any infringements in the department placing?

A. Wrong placing of purulent surgery department
B. Wrong placing of thoracic surgery
C. Wrong placing of gynecological department
D. Wrong placing of general surgery department
E. No infringements

11. While making sanitary examination of burn unit for adults it was stated that wards for 4 persons are of 28 m^2 square. What should be the minimum ward area in this unit?

A. 40 m^2
B. 24 m^2
C. 28 m^2
D. 30 m^2
E. 52 m^2

12. The observation department of maternity house is situated on the first floor under the delivery room. In the department there are 10 2-bed wards and 2 – 1-bed ones. The total amount of the beds is 22. Reception of pregnant women is conducted via the isolated unit of the reception ward. What infringements of sanitary rules

A. Department placement
B. Structure of the department
C. Total amount of beds
D. Reception mode of pregnant women and women in childbirth
E. No infringements

13. Evaluation of results of sanitary and hygiene conditions in a 4-beds ward were as follows: ward area - 30 m^2, humidity - 55%, height - 3,2 m, temperature - 20ºC, air velocity - 0,1 m/s, window-to-floor area ratio - 1:5, daylight ratio - 0,6%, concentration of carbon dioxide in the air - 0,1%. Which of the given indicators does not meet hygienic requirements?

A. Air velocity
B. Ward area
C. Daylight ratio
D. Window-to-floor area ratio

E. Concentration of carbon dioxide in the air

14. Patient with thyreotoxicisis is in the 2 beds hospital ward of therapeutic department. The area of the ward is 18 m^2, height 3 m, ventilation rate 2,5 /hr. Air temperature - 20^oC, relative humidity 45%, air movement velocity 0,3 m/s, light coefficient 1/5, noise level 30 dB. Do hygienic assessment of the conditions:

A. Discomfortable microclimate

B. Non-effective ventilation

C. Poor lighting

D. High level of noise

E. All conditions are OK

15. On inspection of the laundry of the regional hospital it's defined the relative air humidity is 99%, air movement velocity - 0,6 m/s, air temperature - 15^oC. What way to optimize occupational environment could you advise?

A. Decrease humidity and air movement velocity and increase air temperature

B. Decrease humidity, air movement velocity and air temperature

C. Decrease humidity, increase of temperature and air movement velocity

D. Decrease air humidity and temperature of air, increase air movement velocity

E. Decrease temperature and air movement velocity

16. The anestesiologist gives narcosis to the patient, he uses a non-reversive contour. Anesthetic is halothane. Air temperature in the operation room is 21°C, humidity 50%, level of noise 30 dB. What occupational hazards is the most significant in these conditions?

A. Air pollution with anesthetic

B. Improper occupational microclimate

C. High level of noise

D. Mental overfatigue

E. Compelled working pose

17. In the inspection of occupational environment for medical stuff in the operating room they defined air temperature – 20°C, air movement velocity - 0,15 m/s, relative humidity - 75%, carbon dioxide content - 0,3%, general lightning rate with tube lamps - 400 lx, operating field - 7000 lx. What indices don't correspond to the

A. Relative humidity, carbon dioxide content

B. Operating field lighting rate, air movement velocity.

C. Carbon dioxide content, general lighting rate
D. Carbon dioxide content, air temperature
E. Relative humidity, general lighting rate.

18. For controlling of pre-sterilization processing of medical instruments they use some tests: phenolphthalein, ortholuidine, azopiram, benzydine and sodium benzoas for controlling of completeness of eliminating them from blood and alkaline components of detergents.. What test is the most sensitive for blood traces and the safest?

A. Azopiram
B. Phenolphthaleine
C. Benzydine
D. Sodium benzoas
E. Ortholuidine

19. In one of the surgical departments the quality assurance testing of sterilization of surgical instruments was performed. After an instrument had been treated with 1% phenolphthalein, the solution turned pink. This indicates that the instrument has:

A. Synthetic detergent residues
B. Residual blood
C. Drugs residues
D. Residual tissue
E. Disinfectant residues

20. For assessment of epidemiological danger of air environment in the exhibition center they conduct the survey on the air germ pollution. What microbe is sanitary indicative?

A. Str. haemoliticus
B. St. aureus
C. Pseudomonas aeruginosae
D. Escherichia coli
E. Clostridia

21. The germ pollution of operation room after operating was 2500 CFU/m^3. They sanitize air with UV-lamps. What percent should germ pollution be decreased in to consider the sanitation effective?

A. 80%
B. 20%
C. 40%
D. 60%
E. 99%

22. The fulfilment of sanitary-hygienic control of air medium of hospital

wards in somatic department of town hospital the air samples were taken by aspiratory method. Which MAC is used for corporation in evaluation of hygienic conditions of patients staying in the hospital?

A. MAC of atmospheric air

B. MAC of working zone

C. Average monthly MAC

D. Average annual MAC

E. Average MAC per working shift

23. In the operating room of the purulent surgery department they amputated the shin in the patient with gangrene. What way is usual for medical wastes disposal?

A. Incerination in special stoves

B. Dispose to landfills

C. Bury at special cemeteries

D. Bury at the hospital territory

E. Reduce to fragments and dispose to canalization

24. At the radiological unit of the hospital, gamma-devices of radiotherapy of "Agat" type and other closed sources of \ionizing radiation are used for treatment of malignant neoplasms. What are the measures to be taken to protect personnel at the working time from radioactive sources of such type?

A. Shortening of working time and screening of the source

B. Capsulation of devices and organization of room ventilation

C. Screening of the source and the use of means of individual protection of respiration organs

D. The increase of distance to the source and individual hygiene compliance

E. Systematical cleansing of surfaces from the radioactive contamination and shortening of working time

25. The X-ray room of the cardiological center is placed on the 2nd floor and has 40 m^2 total square. The operating control panel is behind the shielded screen. The physician's working place is 2 m from the apparatus. No adjoining wards by the vertical and horizontal. How many premises the X-ray room should consist of:

A. 3

B. 1

C. 2

D. 4

E. 5

26. Surgeon B., 36 years old, working at the thoracic department of the oncological dispensary. This year he has been subjected to X-ray scopy for several times (with esophageal contrasting). What maximum admissible dose is defined for this professional category?

A. 2 mSv
B. 20 mSv
C. 10 mSv
D. 5 mSv
E. 1 mSv

27. Ultra-violet radiation is carried out to prevent in hospital infections in the premises of the medical institutions. What is its health-improvement action evaluated with?

A. Degree and index of effectiveness
B. Multinle of air-exchange
C. Dust content
D. Ozone content
E. Carbon dioxide content

28. The premises of medical institutions demanding the rules of sterility, asepsis and antisepsis be provided with ultraviolet lamp counting:

A. 1 watt capacity per 1 m^3
B. 1 watt capacity per 10 m^3
C. 1 watt capacity per 100 m^3
D. 0,5 watt capacity per 1 m^3
E. 0,5 watt capacity per 100 m^3

HYGIENE OF NUTRITION

1. Mrs. T., 33 years old works as the secretary. Her diet contains 150 g of protein (including 100 g of animal), 200 g of fat, 600 g of carbohydrates. What pathology can develop due to this diet?

A. Obesity
B. Schizophrenia
C. Paradontosis
D. Common cold
E. Uterine fibromyoma

2. As a result of prophylactic medical examination a 35 year old woman was diagnosed with alimentary and constitutive obesity of the III degree. It is known from her anamnesis that the patient doesn't observe rules of rational nutrition: she often overeats, the last food intake is usually 10-15 minutes before going to bed, prefers fattening and rich in carbohydrates food. What is the main alimentary risk factor of obesity development?

A. Energetic unprofitableness of nutrition
B. Excess of carbohydrates
C. Excess of fats
D. Lack of cellulose
E. Violation of dietary pattern

3. A 24-year-old patient complains of gaining body mass and increased appetite. Objectively: built of hypersthenic type, body mass index is 33,2 kg/m^2, chest circumference is 100 cm. What is the provisional diagnosis?

A. Alimentary constitutive obesity, I stage, android type
B. Alimentary constitutive obesity, II stage, android type
C. Alimentary constitutive obesity, III stage, gynoid type
D. Itsenko-Cushing hypothalamic obesity, I stage, android type
E. Itsenko-Cushing hypothalamic obesity, II stage, gynoid type

4. The daily diet of a porter contains 110 g of protein (including 61 g of animal origin), 120 g of fat, 400 g of carbohydrates. His losses of energy are about 4000 kcal per day. What ways to optimize his nutrition could you advise?

A. Increase carbohydrates content
B. Increase quantity of animal protein in the diet
C. Increase quantity of vegetable protein
D. Increase fat content
E. Decrease quantity of animal protein

5. A 68 year old pensioner has three meals a day with following

distribution of energetic value: for breakfast 20%, for dinner 30%, for supper 50%. The diet regime shoved be the following:

A. 4 meals a day with even distribution of energetic value

B. 3 meals a day with superiority of energetic value for breakfast

C. 4 meals a day with superiority of energetic value for dinner

D. 3 meals a day with superiority of energetic value for dinner

E. 4 meals a day with superiority of energetic value for supper

6. Study of actual diet of an adult revealed the following: proteins make up 16% of energy value of daily ration, fats - 25%, carbohydrates - 59%. Evaluate compliance of protein, fat and carbohydrate share in the energy value of daily ration with the recommended shares of these nutrients?

A. Carbohydrate share is insufficient, there is excess of proteins

B. Fat share is insufficient

C. Carbohydrate share is insufficient

D. Carbohydrate share is excessive

E. Nutrient content complies with the recommended shares of energy value

7. Soldier P,. 19 year old, was brought to the military hospital with complaints on fatigability, gum bleeding. Objectively: dryness and paleness of the skin, acrocyanosis. Interdental spaces of the gums are edematous, gums are loosened, cyanotic. Folliculitis signs. Vitamin C excretion with urine: 0,27 mg/hour. Estimate vitamin C supply of the soldier organism and specify its standards for ascorbic acid excretion with urine

A. Low (norm: 0,7-1,0 mg/h.)

B. Low (norm: 2,0-3,0 mg/h.)

C. Low (norm: 1,0-1,5 mg/h)

D. High (norm: 0,1-0,2 mg/h.)

E. Normal (norm: 0,2-0,6 мg/h.)

8. Family physician advised patient to rise vitamin C and calcium supply by drinking milk and eating sorrel. What mistake has he done?

A. Calcium is not absorbed in the presence of oxalic acid

B. Sorrel is poor in vitamin C

C. Milk does not content calcium

D. These foods are allergenic

E. Alimentary correction hasn’t any advantages in comparison with pharmacological one

9. Matusis` Device is used for estimation of providing of an organism with:

A. Vitamin C
B. Vitamin B_1
C. Vitamin B_6
D. Vitamin B_{12}
E. Vitamin A

10. On medical examination a doctor identified girl (162 cm tall and 59 kg weight) who complained loss of ability to see surrounding objects clearly in the evening. On examination: dry skin, hyperkeratosis. Her daily ration includes the following vitamins: vit. A – 0,5 mg, vit. B_1 – 2,0 mg, vit. B_2 – 2,5 mg, vit. B_6 – 2 mg, vit. C – 70 mg. What is the hypovitaminosis type?

A. A-hypovitaminosis
B. C-hypovitaminosis
C. B_1-hypovitaminosis
D. B_2-hypovitaminosis
E. B_6-hypovitaminosis

11. Medical examination of a man revealed "geographic tongue". This microsymptom is the evidence of the following vitamin deficiency:

A. Vitamins of B group
B. Vitamin A
C. Vitamin C
D. Vitamin D
E. Vitamin PP

12. A 52-year-old woman presents with affected mucosa in the mouth angles where fissures, erosions, and ulcers develop; vertical fissures appear on the lips during their closing (cheilosis); there are tongue alterations (glossitis), angular stomatitis, seborrheic dermatitis around the mouth and wings of the nose, and pericorneal injection. The listed symptoms are characteristic of:

A. B_2-hypovitaminosis
B. C-hypovitaminosis
C. B_1-hypovitaminosis
D. A-hypovitaminosis
E. PP-hypovitaminosis

13. A 15-year-old teenager complains of poor night vision. Physical examination: increased darkness adaptation time, Bitot's spot on conjunctiva. The patient skin is dry, scales off, folliculitis signs of the face skin are present. What is the cause of the face skin are present. What is the cause of the disease?

A. Retinole deficit

B. Napthtoquinone deficit
C. Thiamine deficit
D. Folic acid deficit
E. Biotin deficit

14. A 60-year-old man has a diet consisting of unvaried food staples: mostly cereals, potato, pasta; few vegetables and little fats (especially animals fats). During medical examination he complains of deterioration of his twilight vision. This condition can be caused by lack of:

A. Retinol
B. Amino acids
C. Fats
D. Calcium
E. Carbohydrates

15. Medical examination of a 43 y.o. man revealed objectively painless of skin and mucous membranes, smoothness of lingual papillas, transverse striation of nails, fissures in the month corners, tachycardia. Haemoglobin content amounts 90 g/l; there are anisocytosis, poikilocytosis. The most probable causative agent of this condition is deficiency of the following microelement:

A. Iron
B. Zinc
C. Copper
D. Magnesium
E. Selenium

16. A 60 year-old female has been suffering from weakness, dizziness, fatigue over the last year. Recently she has also developed dyspnea, paresthesia. Objectively: skin and mucous membranes are pale and slightly icteric. The tongue is smooth due to the loss of lingual papillae. Liver and spleen are located at the costal margin. Blood count: Hb- 70 g/l, RBCs - $1,7 \cdot 10^{12}$ /l, colour index – 1,2, macrocytes. Administer the patient a pathogenetically justified drug:

A. Vitamin B_{12}
B. Ascorbic acid
C. Iron preparations
D. Vitamin B_6
E. Vitamin *B*

17. Patient C., 15 years old, consulted his physician with complaints of the night blindness. Objectively: rised darkness adaptation time, Bitot's spots on conjuctive. Patient's skin is dry, desquamatous, folliculitis signs of the

face skin. What foods do you consider he should eat to prevent this disease?

A. Butter and carrots
B. Lard and garlic
C. Sunflower oil and cabbage
D. Margarine and potato
E. Cocoa milk and pine apples

18. A patient who has been consuming refined food for a long time complains on headache, fatiguability, depression, insomnia, irritability. Objectively: muscle asthenia, pain and cramps in the gastrocnemius muscles, during walking the patient lands onto his heel first, then on the external edge of foot. Cardiovascular system exhibits tachycardia, hypoxia, dystrophic changes of myocardium. There are also gastrointestinal disorders. What is the most likely diagnosis?

A. Hypovitaminosis B_1
B. Hypovitaminosis B_2
C. Hypovitaminosis B_{12}
D. Hypovitaminosis B_6
E. Hypovitaminosis B_{15}

19. A woman of 55 years old has diarrhea, desquamation and skin pigmentation (on the face, neck, feet and hands), irritability and anxiety. We know from her anamnesis that her main food is maize, she rarely eats vegetables and beans and never eats meat and fish. What is the disease?

A. Pellagra
B. Psoriasis
C. Scurvy
D. Beri-beri
E. Swift's dermatitis

20. As a result of prophylactic medical examination a 35 year old woman was diagnosed with alimentary and constitutive obesity of the III degree. It is known from her anamnesis that the patient doesn't observe rules of rational nutrition: she often overeats, the last food intake is usually 10-15 minutes before going to bed, prefers fattening and rich in carbohydrates food. What is the main alimentary risk factor of obesity development?

A. Energetic unprofitableness of nutrition
B. Excess of carbohydrates
C. Excess of fats
D. Lack of cellulose
E. Violation of dietary pattern

21. A 36 yr. old alcoholic patient has cirrhosis and pancreatic insufficiency due to recurrent pancreatitis. He complaints of nightblindness, decreased ability to taste food, and dry skin with hyperpigmentation. These complaints suggest deficiency of:

A. Zinc
B. Copper
C. Selenium
D. Chromium
E. Manganese

22. In terms of megacalorie (1000 kcal = 4184 kJ) the ration of an adult includes 30 g of proteins, 37 g of fats, 137 g of carbohydrates, 15 mg of vitamin C, 0,6 mg of thiamine (vitamin B_1). The ration is UNBALANCED as to the contents of:

A. Vitamin C
B. Proteins
C. Fats
D. Carbohydrates
E. Thiamine

23. The dockers work at the port in night schift from $23^{\underline{00}}$ to $7^{\underline{00}}$. Due to hard work this group of workers has hard physical activity. What nutrition mode will you advise for them?

A. 3-times meal, total calorie value 3700 kcal
B. 3-times meal, total calorie value 3200 kcal
C. 4-times meal, total calorie value 3200 kcal
D. 5-times meal, total calorie value 5000 kcal
E. Liberated, total calorie value 3000 kcal

24. S., 59 year old male is ill with generalized arteriosclerosis with blood circulation insufficiency. What ratio between the nutrients do you consider to advice?

A. Proteins : fats : carbohydrates = 1 : 0,5 : 3
B. Proteins : fats : carbohydrates = 1 : 1,0 : 4
C. Proteins : fats : carbohydrates = 1 : 1,0 : 5
D. Proteins : fats : carbohydrates = 1 : 1,3 : 4
E. Proteins : fats : carbohydrates = 1 : 2,0 : 3

25. What juice is reccommended to be included in a complex drug and diet therapy for patients suffering from gastric or duodenal ulcer and high acidity of gastric juice to speed up ulcer healung?

A. Potato, potato-carrot
B. Celery, parsley

C. Pumpkin

D. Apple, apple-birch

E. Cabbage, cabbage-carrot

26. A patient undergoes inpatient treatment with the diagnosis of acute pancreatitis. To spare pancreas as much as possible the doctor prescribed for him starvation for 1-3 days. What products is the patient allowed to eat during recovery period after cancelling of starvation?

A. Potato and carrot mash

B. Broth

C. Boiled meat

D. Milk

E. Grape juice

27. Patient was receiving intensive antibacterial therapy because of double-sided pneumonia. As result disbacteriosis has appeared. In what proper way nutrition ration should be changed?

A. By increasing acid milk amount

B. By increasing food-stuffs rich in cellulose

C. By increasing meat food-stuffs

D. By increasing food-stuffs rich in fats

E. By increasing plant oil amount

28. A man is diagnosed with disorder of purine metabolism that manifestates itself with acute arthritis of 1st metatarsophalangeal joint. Provide the patient with the most reasonable recommendation regarding his diet.

A. Restriction of meat and legumes

B. Restriction of free liquid

C. Restriction of cereal and macaroni

D. Restriction of vegetables and fruits

E. Restriction of milk products

29. A 66 year old history teacher doesn't have in his diet the products having anti sclerotic action. Correct the teacher's diet.

A. Introduce fish, poultry meat, cheese, fruit, vegetables, into diet

B. Introduce cereals into diet

C. Introduce fat meat into diet

D. Introduce floury products into diet

E. Introduce all enumerated products into diet

30. A 48-year-old male in-patient undergoes treatment for essential hypertension of II-B stage. It is known from history that he works in a design engineering office. His job involves neuro-emotional stress. Which

of nervous foodstuffs do not stimulate the central nervous system and can be recommended for the patients?

A. Whole milk;
B. Mushroom broths
C. Meat broths
D. Vegetable broths
E. Carbonated beverages

31. Bakers at bread production work in conditions of high temperature and high heat radiation. What is used to increase the body's resistance to the unfavorable effects of these harmful work envronment factors?

A. Vitamin preparations
B. Therapeutic and preventive diet № 1
C. Milk
D. Pectin
E. Therapeutic and preventive diet № 3

32. During a regular medical examination at a metallurgical plant 20% of workers were found overweight (body weight was 5-14% higher than normal); and had early sings of obesity (grade I-II) with Queteled index from 26 to 30. What products share must be reduced in the diet of this group of people in the place in order to normalize their body weight?

A. Bakery products
B. Vegetables
C. Fruit
D. Milk and dairy products
E. Meat and fish products

33. What kind of sprue cereals mentioned doesn't produce worsening-effects in the course of celiac disease (non-tropical):

A. Rice
B. Wheat
C. Oats
D. Rye
E. Barley

34. A child is 1 y.o. Within the last months after the beginning of supplemental feeding the child has appetite loss, diarrhea with massive defecation, sometimes vomiting. Objectively: body temperature is normal. Body weight is 7 kg. evident pallor of skin, leg edemata, enlarged abdomen. Coprogram shows a lot of fatty acids and soaps. The child was diagnosed with celiac disease and prescribed gluten-free diet. What shoul be excluded from the dietary intake in this case?

A. Digestible carbohydrates;
B. Cereals – wheat, oats;
C. Fruit;
D. Milk and dairy produce;
E. Animal protein

35. Mrs. Y. lives in polluted area in the zone of severe radioecology. She has own household with the garden and she doesn't work. She consult physician about using vegetables from the garden to rise excretion of the radionuclides. You should recommend vegetables with the highest fiber content (more then 1 %).

A. Pumpkin
B. Paprika
C. Vegetable marrow
D. Carrot
E. Cabbage

36. While answering the state examination a student of medical faculty said that the sanitary lab decides the problem about suitable of food use. Could you correct your colleague's answer?

A. Health officer gives final conclusion about food quality
B. Assistant of health officer gives a conclusion
C. Dietologist gives final conclusion
D. Cook gives the conclusion
E. Customer gives a conclusion

37. Fish was delivered to the kitchen of the student hostel: the surface is covered with slime, scales are mate, gills have dirty red color and unpleasant smell, eyes are mate and sunken, muscles are soft. Assess food quality.

A. Poor quality product
B. High quality product, can be used without limitations
C. High quality product, can be used with limitations
D. Conditionally good product
E. Adulterated product

38. Canned fish "Atlantic hearing" has a paper label with specification of the enterprise-producer (fish-processing plant in Yalta), name of the product and others. The surface of the tin is not deformed, the bottom and cover are significantly convex. Tin is hermetic. Tin cover is marked by the stamp: 070190 513234 1P Assess quality of fool stuff?

A. Poor quality product, can't be used
B. High quality product, can be used w/o limitations

C. Conditionally edible product, can be used for meal

D. False spoiled, can be used after boiling

E. Adulterated, can be used after boiling

39. The first-rate wheat bread was brought to the hospital food-block: with humidity of 45 %, acidity of 3° T, porosity of 67 %. Evaluate the quality of the bread, please.

A. Of good quality

B. Of poor quality

C. Adulterated

D. Conditionally fit

E. Of the lowered quality

40. Estimate the quality of milk: density 1,038 g/cm^3, the maintenance of fat 2,8 %, acidity 18° T.

A. The lowered quality

B. Of good quality

C. Of poor quality

D. Adulterated

E. Conditionally fit

41. At the market they sell milk brought in the churns. Smell and taste of milk are usual, color is white with bluish tint, specific density 1,015 g/cm^3, fat content 2%. Acidity 15^{o}T. No admixtures. Determine milk quality.

A. Milk was adulterated by dilution

B. Milk was adulterated by skimming

C. Stale milk

D. Milk with suspicious freshness

E. Surrogate milk

42. Milk contains starch. Solution Lugoli has been added for defining starch in milk. What colour will the milk be painted in?

A. Dark blue

B. Pink

C. Green

D. Yellow

E. Black

43. They took the sample from 5 tons milk batch. In the lab analysis it was defined: fat content 2%, specific density 1,04 g/cm^3, acidity 21^{o}T, reductase probe – weak positive. What way is the product to be used in?

A. Sell but inform customers about milk quality

B. Write off for animal feeding

C. Technical utilization

D. Sell without limitations

E. Do product away

44. Wheat flour came to realization in the trade network. By the documents its sort was defined as "extra". Lab analysis data: color: white with yellowish, humidity: 17%, smell: acidous acidity: 10^{o}, taste: acidous, glutens: 15%, crunch: no. Assess quality of product.

A. Poor quality product, not suitable for using

B. Flour of high quality, can be used w/o limitations

C. Conditionally suitable for using

D. Flour has low humidity, not suitable for using

E. Flour has high humidity, not suitable for using

45. They inspect the pig corps at the abattoir. The flesh surface is light-red, section is some how wet, spots at the blotting-paper don't appear, elasticity is normal. Fat is white with yellowish tint, solid, in compression it crumbles, marrow is pink and fills the bone channel completely. The meat has specific smell of fresh flesh. In tongue, diaphragm, intercostals and chewing muscles there are trichinas. What should they do with meat?

A. Use for technical utilization

B. Use for meal w/o limitations

C. Use for meal after boiling

D. Use for meal after disinfecting

E. Use for animal feeding by the contract with veterinarian inspection

46. They confiscated 20 kg of pork from a seller at the market. The surface of flesh is bright, consistence is dense, fat is solid, smell is usual, color is light red, pH of meat juice - 6,0. they found 2 fins at 40 cm^2. Assess meat quality.

A. High quality product, conditionally suitable

B. High quality product, suitable w/o limitations

C. Poor quality product, not suitable

D. Surrogate

E. Adulterated product

47. During meat testing Trichinella was detected in diaphragm crura in one of the two muscular tissue samples. What tactics should a doctor choose regarding this meat?

A. Technolgical disposal

B. Boiling under 1,5 atmosphere

C. Preservation in 10% salt solution

D. Freezing under -12°*C*

E. Incineration

48. A hospital nutrition unit received a batch of beef. Sanitation physician examined the meat and revealed the presence of 5 bladder worms per 40 cm² of meat. Give the hygienic assessment of meat:

A. Lieble to technical utilization
B. Conditionally admissible
C. Good-quality
D. Poor-quality
E. Adulterated

49. They confiscated 20 kg of pork from a seller at the market. The surface of flesh is bright, condistence is dense, fat is solid, smell is usual, color is light red, pH of meat juice - 6,0. They found 5 fins at 40 cm^2. Assess meat quality:

A. Poor quality product, not suitable
B. High quality product, suitable w/o limitations
C. High quality product, suitable with limitations
D. Surrogate product
E. Adulterated product

50. Hygienic assessment of a sample taken from the batch of grain revealed 2% of grains infected with microscopic Fusarium fungi. On the grounds of laboratory analyses this batch of grain should be:

A. Sold without restrictions
B. Used for forage production
C. Used for ethanol production
D. Destroyed
E. Tested for toxicity

51. The cadets of military school were brought to the infection hospital with acute gastroenteritis after reception on the graduation day. In vomiting masses and rest of the products St. aureus and its enterotoxine were found out by ELISA. What product have cause food poisoning?

A. Cream cake
B. Sausages
C. Fries
D. Stuffed paprika
E. Adulterated cognac

52. An Odessa inhabitant collected mushrooms in the forest, fried and ate them. In 12 hours he felt severe abdominal pains, vomiting bloody diarrhea. In the end of the 1st day jaundice, hepatomegalia and oliguria developed. There were convulsions also. He passed on the 3rd day of the

disease. What is the cause

A. Poisoning with Death Cap

B. Overcooling

C. Poisoning with margarine preservants

D. Poisoning with fly agaric

E. Poisoning with false morel

53. In the morning a patient had nausea, abdominal discomfort, single vomiting, dry mouth. In the evening, the patient presented with the increasing general weakness, double vision, difficult swallowing of solid food. Objectively: ptosis, mydriasis, anisocoria, absence of gag and pharyngeal reflex, dry mucous membranes. The previous evening the patient had dinner with canned food and alcohol. What is the presumptive diagnosis?

A. Botulism;

B. Food toxicoinfection;

C. Acute ischemic stroke;

D. Poliomyelitis;

E. Intoxication with unknown poison

54. The 25-year-old patient was admitted on the 1st day of the disease with complaints of double vision in the eyes, difficult respiration. The day before the patient ate home-made mushrooms. On objective examination: paleness, widened pupils, disorder of swallowing, bradycardia, constipation are marked. What is the diagnosis?

A. Botulism

B. Yersiniosis

C. Leptospirosis

D. Salmonellosis, gastrointestinal form

E. Lambliasis

55. A 12-yaer-old boy presents with nausea, frequent repeated vomiting that first occurred after eating canned vegetables. Objectively: the patient has dry mucous membranses, muscular hypotonia, anisocoria, mydriasis, dyspagia and dysarthria. What is the most likely diagnosis?

A. Botulism

B. Yersiniosis

C. Salmonellosis

D. Shigellosis

E. Cholera

56. A patient, who had eaten canned mushrooms (honey agaric) three days ago, developed vision impairment (diplopia, mydriasis), speech disorder,

disturbed swallowing. What type of food poisoning occurred in the patient?

A. Botulism
B. Lead salts poisoning
C. Honey agaric poisoning
D. Fusariotoxicosis
E. Food toxicoinfection

57. After eating raw duck eggs the family with signs of gastroenterocolitis was admitted to hospital t. What disease can be the most probable?

A. Salmonellosis
B. Erysipelas
C. Leptospirosis
D. Botulism
E. Ergotism

58. A patient complains of frequent, bulky, frothy stools with greenish mucus, cramping pain in the umbilical region, abdominal murmur, body temperature at the rate of 39°*C*. The patient associates the disease with consumption of soft-boiled eggs. What is the most likely pathogen?

A. Salmonella
B. Vibrio cholerae El Tor
C. Yersinia
D. Shigella
E. Enteropathogenic E.Coli

59. Mr G. uses untreated feces for fertilizing. He sells vegetables at the city market. What infestation can occur among his customers?

A. Ascaridosis
B. Trichinosis
C. Shistosomatosis
D. Dracunculosis
E. Opistorchosis

60. A nurse of the kindergarten was taken to the hospital with complaints of accute pain in parumbilical part, convulsions of lower limbs, multiple bile vomiting, frequent watery foul faces of green colour in huge amounts. At the same time all the staff in the children garden got ill. Two days ago everybody of them ate cottage cheese with sour cream. General condition of patients is of average severity. Temperature is $38,2^0$C. Heart tones:rhythmic and muted. FHC 95/min, A. Pressure :160 mm/Hg. Abdomen is slightly swollen, painful. Liver +2.

A. Salmonelosis

B. Dysentery
C. Cholera
D. Food toxic infection
E. Enterovirus infection

61. The disease in a child's institution developed suddenly in 2-3 hours after having the cottage cheese, without thermal treatment. All patients had plentiful repeated vomiting, abdominal pain, watery stool, paleness of the dermal integuments. The body's temperature is $37,3^0$C. The clinical manifestations passed during a day. What is the probable diagnosis?

A.Toxic food infection
B. Poisoning with salts of hard metals
C. Bacterial toxicosis
D. Acute intestinal infection
E. Mycotoxicosis

62. In a pre-school educational establishment the menu consists of the following dishes: milk porridge from buckwheat, pasta with minced meat, cucumber salad, kissel (thin berry jelly), rye bread. What dish should be excluded from the menu?

A. Pasta with minced meat
B. Milk porridge from buckwheat
C. Kissel (thin berry jelly)
D. Cucumber salad
E. Rye bread

63. They brought the patient T., 32 year old, with acute gastroenteritis signs to the reception ward of the municipal infectious hospital. He has fallen ill suddenly. Four hours ago he had a lunch with his girlfriend. He drank alcohol beverages, ate some ham, Russian salad, stuffed cabbage-rolls and other foods. He ate ice-cream with strawberries and rum. From his girlfriend it's known that ice-cream was melted and frozen again. What food caused such a condition?

A. Ice-cream
B. Ham
C. Alcohol drinks
D. Russian salad
E. Stuffed cabbage rolls

64. The man with jaundice was brought to the hospital. He considered that his state was caused by roasted peanut. What mycotoxine was found in peanuts?

A. Aflotoxine

B. Rgotoxine
C. Botulotoxine
D. Phasine
E. Solanine

65. The 5-year-old child was brought to the reception ward with such symptoms as: dryness of skin and mucosa, short breathing, midriasis, agitation, confused consciousness. They defined that before hospitalization the child had collected berries in the forest. What plant caused food poisoning?

A. Spurge-flax
B. Fly agaric
C. Green gill
D. Cikuta
E. Aconitis

66. A 10-year-old patient has a history of mild bronchial asthma. During a regular check-up the patient should be recommended:

A. To avoid allergenic food
B. To avoid sports
C. To avoid body tempering procedures
D. To avoid going to the seaside
E. To avoid spa treatment

67. In the workers canteen a zinc-pot is used for storing meat soup with salted cucumbers in the workers canteen they used a zinc-coated bucket. In 2-3 hours after eating this soup 5 workers had vomiting. Sick men were hospitalized. In a day all signs disappeared. What is the disease?

A. Zinc poisoning
B. Botulism
C. Overeating
D. Iron poisoning
E. Staphylococcal intoxication

HYGIENE OF CHILDREN AND ADOLESCENTS

1. The vital capacity of lungs was estimated during medical examination of schoolchildren. What device is used for measuring of vital capacity of lungs?

A. A spirometer
B. The thermometer
C. The anthropometer
D. A tonometer
E. A centimetric tape

2. To study physical development of children and adolescents, anthropometric investigations are widely used. Choose a physiometric method of investigation from the below given.

A. Determination of vital capacity of lungs;
B. Determination of vertebra form;
C. Determination of body weight;
D. Determination of thorax form;
E. Measurement of growth

3. The study of degree and harmoniousness of physical development of children and teenagers is conducted with the use of somatometric, somatoscopic and physiometric researches. To the physiometric signs of physical development take:

A. Lung vital capacity
B. Weight
C. Form of feet and thorax
D. Heigth
E. Second sexual signs.

4. For study of physical development of children of pre-preschool age estimated indexes: height and weight, chest circumference, circumference of head and thighs, form of vertebra and thorax. What from the transferred indexes, except for height and weight, does belong to the basic indexes of physical development?

A. Chest circumference;
B. Circumference of thighs;
C. Thorax form;
D. Vertebra form;
E. Crcumference of head.

5. The child is 6 years old. For one year of observation he has ARD during 8 days. Physical condition is satisfactory. Define group of health:

A. I-st
B. II-d
C. III (a)
D. III (b)
E. III (c)

6. The 9-year-child with diagnosis "chronic tonsillitis" stands dispanserization control. During the 1st year of observation there was one exacerbation of disease. Physical condition is satisfactory. The general state is not infringed. Define group of health:

A. III (a)
B. II
C. I
D. III (b).
E. III (c)

7. The 9-year-old girl has an average height and harmonic growth development. She was ill with acute respiratory infection for five times. Define group of her health:

A. 2nd
B. 1st
C. 3rd
D. 4th
E. 5th

8. At estimation of physical development of a boy it is set, that his mass of body is less, than M - 2σR on by regional standards (tables of regression) for lack of chronic pathology. What group of health does a boy belong to?

A. II
B. III.
C. IV.
D. V.
E. I.

9. A 12-yaer-old girls has minor functional and morphological abnormalities: 1,0 D myopia, reduced body resistance. The patient has no history of chronic diseases. Over the last year, there were 4 cases of respiratory diseases. The girl belongs to the following health group:

A. II
B. III
C. IV
D. I
E. V

10. A district pediatrician at the end of year investigated observed of children health in the area. What groups of indexes did he estimate their health after?

A. To morbidity, disability

B. To morbidity, children's death rate, disability

C. Morbidity, physical development, children's death rate

D. To the death rate by sex / age

E. To morbidity and death rate for the sex, age, groups of nosologic forms

11. On a pediatric area to the end of year the level of general morbidity grew on 75 %. What indexes should be included to find out of reasons of such growth?

A. Health of parents

B. Living conditions of children

C. Culture level of parents

D. Financial state of family

E. Structure of morbidity

12. The 6 year old girl is low in height. Her growth development is harmonic. She has premolars and incisors of permanent teeth. This year she has measles and infectious hepatitis. She can calculate and read. She's done Kern-Yiracek's test with 6 scores. Why is the girl not ready to be admitted to school?

A. Infectious hepatitis

B. Low height

C. Poor results of the test

D. Absence of all permanent teeth

E. Measles

13. A boy, aged 9, is examined: height – 127 cm (-0,36), weight – 28,2 kg (+0,96), the volume of the chest – 64,9 cm (0,66), lung vital capacity – 1520 ml (-0,16). What is the integrated assessment of the child's physical development?

A. Harmonious

B. Below the average

C. Markedly disharmonious

D. Disharmonious

E. Excessive

14. Give the estimation of physical development of 9-year-old girl after the method of sigma divergence, if body length corresponds to +1,2σ.

A. Above average

B. Middle
C. Harmonious
D. Sharmonious
E. Proportional

15. A 10 y.o. child with average indices of body length and her chest circumference exceeds average indices, body weight index is heightened due to lipopexia. Functional characteristics of physical development are below average. Physical development of this child can be estimated as:

A. Disharmonic
B. Harmonic
C. Deeply disharmonic
D. Below average
E. Average

16. In school №75 examination of the children's growth. Was provide the 7-year-old girl has height of 133,3 cm (+2,1σ), weight 29,0 kg (+1,0 σ), chest volume 60,1 cm (+0,5 σ). Estimate her growth development.

A. The child has high height, disharmonic development
B. The child has high height, harmonic development
C. The child has low height, harmonic development
D. The child has average height, harmonic development
E. The child has low height, disharmonic development

17. In a forest summer camp children have variable procedures to strengthen their organisms. What procedure has the most strengthening power?

A. Contrast shower
B. Bath with hydromassage
C. Hygienic shower
D. Walking on the fresh air
E. Morning exercises on the fresh air

18. In order to improve organism tolerance of boarding-school pupils a doctor developed a program. The program is based upon the following principles: graduality, consistency, individuality, complexity. What on the main principles of organism tempering wasn't taken into account?

A. Systematicness
B. Autodefence increase
C. Increase of influence force
D. Increase of influence intensity
E. Increase of resistance

19. For training stamina teenager B., 15 year old, started to use a cold

shower (water temperature +6°C) for 20-30 minutes. In some days he stopped the procedures because of acute tonsillitis. What water procedures would you advise for strengthening (training stamina) at the beginning?

A. Wiping
B. Bathing in the water reservoir
C. Scotch shower
D. Pouring
E. Gargling throat with cool water

20. A children's health camp received a party of tinned food. External examination of the tins revealed that they had deep dents, could be easily concaved when pressed and wouldn't immediately return to the initial state; rust was absent; the tins were greased with inedible fat. Specify the bloat type:

A. Physical
B. Chemical
C. Biological
D. Combined
E. Physicochemical

21. A 8-year-old boy is under the dispensary supervision because of chronic gastroduodenitis. What group of physical education has got the boy?

A. Special
B. Basic
C. Additional
D. Preparatory
E. Medical

22. A pupil of 8th form after trauma has acute atrophy of the leg muscles, tonus of which is distinctly decreased, active movements are only in the knee joint, his foot is deformed. Support function of the left leg is absent, support function of the right leg is preserved. The boy wears orthopedic footwear. What group of physical training does the boy belong to?

A. Special
B. Basic
C. Preparatory
D. Additional
E. Other

23. What duration of preparing homework by the pupils of the eighth – eleventh forms will meet hygienic requirements?

A. 3 hours

B. 1,5 hours
C. 2 hours
D. 3,5 hours
E. 4 hours

24. The showing of an age-old tendency among the younger sections of population is acceleration. Which groups of hypotheses cause this phenomenon?

A. Heliogenic, alimentary, social and economic
B. High-caloric mixtures of children's nutrition
C. Heterolocal marriages, early puberty
D. City urbanization and ecology
E. Specific prophylaxis, successes in pediatrics

25. The impairment of vision can occur in children when carrying out different kinds of work. What main hygienic conditions of labour can provide the prophylaxis of these disturbances?

A. Ensuring the good illumination of a child's working place
B. The time restriction of fulfilling work
C. The quality of educational books
D. A blackboard colour
E. The distribution of children in the classroom

26. Senior nursery group is situated on the first floor of the kindergarten. Section consist of a dressing room (18 m^2), a dining room (group room) (50 m^2), bedroom (48 m^2), servant room (14 m^2). Section has only one entrance from the street and it's joined with middle group. Could you define any infringements in the:

A. Infringement of group isolation
B. Insufficient area of the dressing-room
C. Insufficient area of the dining room
D. Wrong content of the section premises
E. Improper placement on the floor

27. A planner designs a heating system for a pre-school educational establishment. The highest air temperature should be in the following room:

A. Game room of a nursery group
B. Bedroom of a preschool group
C. Bedroom of a nursery group
D. Common room of a preschool group
E. Gym

28. The classroom in the village school has 30 m^2. How many 5th year

pupils could study in this premise?

A. 10
B. 15
C. 20
D. 25
E. 30

29. Study of natural illumination for a workplace in a secondary school classroom revealed that the angle of sunlight incidence was 25°, window openung angle — 3°, window-to-floor area ratio — 1:4, daylight ratio – 0,5, depth ratio -2. What indicators do not meet hygienic standarts?

A. Daylight ratio
B. Angle of incidence
C. Depth ratio
D. Window opening angle
E. Window-to-floor area ratio

30. Educational rooms are illuminated with various lighting fittings. What type of lighting is the most appropriate in respect of hygienic norms?

A. Indirect light fittings
B. Direct light fittings
C. Semi-reflected light fittings
D. Ambient light fittings
E. Combined light fittings

31. Maximum permissible concentration of carbon dioxide in the air is considered to be a sanitary index of air purity in a classroom. What concentration of carbon dioxide in the air does accepted as a permissable maximum?

A. 0,1 %
B. 0,15 %
C. 0,05 %
D. 0,3 %
E. 0,2 %

32. Portable desks are sold in the market. Desks are made from light wooden. They haven't got sharp edges, the cover has an operated inclination (from 1 to 45o), height of the table is 0,8 m, sit height is 0,5 m, distance of the sit is positive. What disease can be developed in the children site up at desk doing home work?

A. Right sided scoliosis
B. Left-sided scoliosis
C. Flat footedness

D. Anemia

E. Hypermetropia

33. During medical examination of a group of children under 4 years carried out by a pediatric team in one of the African countries a set of similar pathological signs was detected in some of the children. The signs are as follows: growth inhibition, mental changes, muscle atrophy, swellings, changes in hair and skin pigmentation. These children were diagnosed with kwashiorkor. What food products should be added to the diet to treat this disorder?

A. Fish, vegetables, cereals

B. Vegetables, fruit

C. Milk, meat, vegetables

D. Poultry, fruit, berries

E. Cereals, fruit, berries

34. Child's preschool establishment is near-by a motorway, content of monoxide of carbon in air on territory exceeds MAC in 3-4 times. What needs to be defined in blood of children with the purpose of exposure to harmful influence of air contamination?

A. Carboxyhemoglobin

B. Carbhemoglobin

C. Methemoglobin

D. Hemoglobin

E. Reduced hemoglobin

35. Examination on the children health in city of N. was conducted. It was defined that in 23 % of cases lead content of blood was higher than 10 mkg/l. What was the principal source of pollution of urban environment with lead compounds?

A. Ethyl gasoline using

B. Using lead-containing paints battery producing

C. Porcelain producing

D. Cable producing

E. -

36. While school_was be up inspected they defined that children of third form has 26 lessons during a weak; on Tuesday the first 5 lessons at a whole is Ukrainian lesson, 2nd - Music, 3 and 4th - Physical training,. Could you find any infringements in the schedule?

A. Number of classes of physical training

B. Number of lessons per week

C. Number of lesson per day.

D. Place of music lesson in the schedule

E. Place of the Ukrainian language lesson in the schedule

37. Preventive examination of an 11 year old boy helped to determine his habitus type. It was established that the child's shoulders were deviated and brought forward, with forward flexion of head, the thorax was flattened, abdomen was convex. The child's backbone had signs of deepened cervical and lumbar curvatures. What habitus is it?

A. Kyphosis

B. Lordosis

C. Round-shouldered

D. Corrected

E. Normal

RADIATION HYGIENE

1. They damaged the container with alpha-radioactive substance (solution) with pollution of the work place surfaces. What preventive measures should be used?

A. Desactivation of the premises
B. Degasation of the premises
C. Respiratory protective equipment
D. Protective shields
E. Decrees about duration of the working week.

2. Patient C., 48 years old, participated in the liquidation of Chernobyl disaster consequences. He is treated in in-patient department of municipal hospital. His diagnosis: progressing vegetative insufficiency. What group of biological effects of ionizing radiation states this?

A. Somato-stochastic
B. Somatic effects
C. Geterosis
D. Genetic
E. Gormesis

3. A 45-year-old man complains of cough fits and tickling in his nasopharynx. He had been staying for 10 days in the polluted area created by the Chornobyl nuclear power plant accident. Rhinoscopy shows signs of severe nasopharynx irritation. What radionuclide is the cause of this irritation?

A. Radioactive iodine
B. Radioactive cobalt
C. Radioactive cesium
D. Radioactive strontium
E. Radioactive plutonium

4. People who live in the radiation polluted regions are recommended to include pectins into their daily intake to eliminate the radioactive nuclides washout. What products are the main sources of pectins?

A. Milk
B. Bread
C. Meat
D. Fruit and vegetables
E. Macaroni

5. A 38-year-old man works within the range of ionizing radiation. At a routine medical examination he presents no problem. In blood: RBCs -

4,5x10¹²/l, Hb-80 g/l, WBCs - 2,8x10^{12}/l, thrombocytes - 30x10^{12}/l. Decide if this person can work with sources of ionizing radiation:

A. Working with radioactive substance and other sourses of ionizing radiation is contraindicated

B. The pacient can be allowed to work after an extended medical examination

C. The patient is allowed to work with radioactive substances for the limited period of time

D. The patientis allowed to work with radioactive substances

E. The patient can only work with radioactive substances of low activity