

№	крок 2023
Topic	Microbiological basis of antimicrobial chemotherapy and antiseptic
Task	When measuring the antimicrobial activity of drugs, their minimum concentration that suppresses the growth of microbes must be determined. What is this parameter?
Correct answer	The lowest drug concentration that inhibits growth of a bacterial test culture
B	The lowest drug concentration that inhibits enzyme biosynthesis in the macroorganism
C	The lowest drug concentration that has a bactericidal effect
D	The lowest drug concentration that causes development of selective strains of test cultures
E	-
№	крок 2023
Topic	Pathogenic protozoa
Task	A person diagnosed with malaria was admitted into the infectious diseases hospital. What route of infection transmission is characteristic of this disease?
Correct answer	Vector-borne transmission
B	Airborne and droplet transmission
C	Indirect transmission
D	Fecal-oral transmission
E	Direct transmission
№	крок 2023
Topic	Microbiological basis of antimicrobial chemotherapy and antiseptic
Task	What is the mechanism of action of the antiviral drug acyclovir?
Correct answer	Inhibition of nucleic acid synthesis
B	Blockade of cellular wall synthesis
C	Antagonism with para-aminobenzoic acid
D	Inhibition of protein synthesis
E	Increase of cellular membrane permeability
№	крок 2023

Topic	The methods of bacteriological investigation.
Task	Long-term use of antibiotics can result in development of dysbiosis. What method can detect intestinal dysbiosis?
Correct answer	Bacteriology
B	Serology
C	Patient interview
D	Gnotobiotic experiments
E	Allergy testing
№	крок 2023
Topic	RNA-genomic viruses: Orthomyxoviruses. Paramyxoviruses. Picornaviruses. Rhabdoviruses. Arboviruses
Task	A child that attends a day care center fell ill with measles. What is used to prevent this disease in the contact persons?
Correct answer	Measles immunoglobulin
B	Antibiotics
C	Sulfanilamides
D	Measles vaccine
E	Immunostimulants
№	крок 2023
Topic	Pathogenic rickettsia, chlamydiae, mycoplasmas
Task	An infection caused by phytopathogenic mycoplasmas has spread through a plantation of medicinal plants. What feature characterizes this group of microorganisms?
Correct answer	Have no cellular wall
B	Form spores
C	Have one flagellum
D	Die in the presence of oxygen
E	Do not grow on nutrient media

№	крок 2023
Topic	RNA-genomic viruses: Orthomyxoviruses. Paramyxoviruses. Picornaviruses. Rhabdoviruses. Arboviruses
Task	A certain infection leads to fetus malformation if a pregnant woman becomes infected. What vaccine must be used for the prevention of this infection?
Correct answer	Rubella virus vaccine
B	Poliovirus vaccine
C	Mumps vaccine
D	Antirabic vaccine
E	Influenza virus vaccine
№	крок 2023
Topic	Sanitary and microbiological methods of research of medicinal plant raw material and ready made medicines
Task	What bacteria indicate the presence of fecal contamination?
Correct answer	Escherichia coli
B	Anthracooids
C	Serratia
D	Sarcina
E	Klebsiella
№	крок 2023
Topic	Pathogenic spirochaetes
Task	The Wasserman test was positive in a 25-year-old woman. What disease can be diagnosed using this test?
Correct answer	Syphilis
B	Tuberculosis
C	Diphtheria
D	Leptospirosis

E	Brucellosis
№	крок 2023
Topic	Infection. Biological method of investigation. Concept of immunity
Task	Causative agents of infectious diseases can be carried both by humans and animals. What infections affect animals and from them can be passed onto humans?
Correct answer	Zooanthroponoses
B	Zoonoses
C	Mixed
D	Sapronoses
E	Anthroponoses
№	крок 2023
Topic	Concept of immunity. Types of immunity. Cellular and humoral factors of non-specific immunity. Antigens. Antibodies
Task	At the age of 5 months, a child had measles antibodies in the blood. At the age of 1 year, these antibodies were no longer present in the child's blood. Why were these antibodies present in the child's blood?
Correct answer	Acquired natural passive immunity
B	Acquired natural active immunity
C	Innate immunity
D	Artificial immunity
E	Non-specific resistance
№	крок 2023
Topic	Microbiological basis of antimicrobial chemotherapy and antiseptic
Task	Asepsis,antiseptics,disinfection and sterilization are widely used in pharmaceutical practice. What is the correct definition of the term "asepsis"?
Correct answer	Preventing microbes from contaminating any object
B	Complete destruction of all forms of microbes in an object

C	The use of substances that kill the pathogenic microbes in the external environment of the body
D	Destruction of pathogenic microbes in the environment
E	The use of substances that kill microorganisms on the skin and mucosa
№	крок 2023
Topic	Structure of bacterial cell. Morphology and cell structure of actinomycetes, spirochaetae, fungi and protozoa
Task	A Gram stained smear shows large oval violet cells that form pseudomycelium. Name these microorganisms.
Correct answer	Candida fungi
B	Mucor fungi
C	Malaria emphPlasmodium
D	Actinomycetales
E	Penicillium fungi
№	крок 2023
Topic	Microbiological basis of antimicrobial chemotherapy and antiseptic
Task	Antibiotic treatment of infectious diseases belongs to the following type of pharmacotherapy:
Correct answer	Etiotropic
B	Stimulating
C	Symptomatic
D	Pathogenetic
E	Substitution
№	крок 2023
Topic	Methods of laboratory diagnosis of bacterial infections. Pathogenic cocci
Task	A pus sample taken from the urethra had been inoculated on ascitic agar, which resulted in the growth of round transparent colonies. Microscopy of the colonies detects Gram-negative bean-shaped diplococci. What causative agent is it?

Correct answer	Gonococcus
B	Streptococcus
C	Pneumococcus
D	Micrococcus
E	Meningococcus
№	крок 2023
Topic	Causative agents of viral hepatitis. Oncoviruses. HIV.
Task	HIV-infection occupational risk groups include people of various professions, healthcare workers included. What is the most likely route of infection transmission to healthcare workers?
Correct answer	Parenteral transmission
B	Droplet transmission
C	Fecal-oral transmission
D	Transmission via airborne dust particles
E	Vector-borne transmission
№	крок 2023
Topic	DNA-genomic viruses
Task	What drug is used in treatment of herpes infection?
Correct answer	Acyclovir
B	Sabin's vaccine
C	Tamiflu (Osetamivir)
D	Rimantadine
E	Gamma globulin
№	крок 2023
Topic	Structure of a bacterial cell. Morphology and structure of bacteria, fungi and protozoa

Task	The structure of the bacterial cell that provides microbes with increased resistance to the environmental factors and can remain intact for a long time can be detected by staining a smear according to the Ozheshko technique. What is this structure called?
Correct answer	Spore
B	Flagella
C	Pilus
D	Capsule
E	Plasmid
№	крок 2023
Topic	Concept of immunity. Types of immunity. Cellular and humoral factors of non-specific immunity. Antigens. Antibodies
Task	What changes in leukogram are most characteristic of helminthiasis?
Correct answer	Eosinophilia
B	Lymphocytosis
C	Basophilia
D	Monocytosis
E	Neutrophilia
№	крок 2023
Topic	Microbiological basis of antimicrobial chemotherapy and antiseptic
Task	What groups of antibiotics can be classified as beta-lactam antibiotics?
Correct answer	Penicillins, cephalosporins, monobactams, carbapenems
B	Penicillins, cephalosporins, tetracyclines
C	Penicillins, cephalosporins, macrolides, carbapenems
D	Cephalosporins, macrolides, aminoglycosides
E	Cephalosporins, monobactams, aminoglycosides
№	крок 2023
Topic	Pathogenic spirochaetes

Task	Examination of the patient's oral cavity detects roseola rash, pustules, and papules on the mucosa of the soft palate. Microscopy of the smears prepared from the discharge and stained according to Romanowsky-Giemsa revealed pale pink wavy microorganisms. What microorganisms are the likely cause of this pathology?
Correct answer	Treponema pallidum
B	Staphylococci
C	Streptococci
D	Candida fungi
E	Meningococci
№	крок 2023
Topic	Sanitary and microbiological methods of research of medicinal plant raw material and ready made medicines.
Task	Microbiological study of dried medicinal plants shows that they were contaminated with clostridia. What feature is characteristic of this group of microorganisms?
Correct answer	Spore-formers
B	Gram-negative
C	Obligate aerobes
D	Nonpathogenic for humans
E	-
№	krok 2017
Topic	Immunoprophylaxis. Immunotherapy.
Task	In a child-rearing facility there was an outbreak of measles. What specific urgent prophylaxis should be administered to contact unvaccinated children?
Correct answer	Gamma globulin against measles
B	Measles virus vaccine live
C	DPT vaccine
D	Medical screening of the children

E	Isolation and treatment of infected children
№	krok 2017
Topic	Microbiological bases of antimicrobial chemotherapy and antiseptics. Antibiotics.
Task	A chemotherapeutic agent has bactericidal effect against streptococci, staphylococci, bacilli, and clostridia. According to its action spectrum this drug belongs to the following group:
Correct answer	Broad spectrum antibacterial agents
B	Narrow spectrum antibacterial agents
C	Broad spectrum antifungal agents
D	Antiviral agents
E	Antituberculous agents
№	krok 2017
Topic	The structure of bacterial cells.
Task	Microbe survival within environment is facilitated by spore formation. What microorganisms of those listed below are spore formers:
Correct answer	Clostridia
B	Bacteroides
C	Staphylococci
D	Peptococci
E	Peptostreptococci
№	krok 2017
Topic	Methods of sterilization. Disinfection.
Task	The following should be used for sterilization of laboratory glassware in a microbiological laboratory:
Correct answer	Hot-air sterilizer
B	Bacteria-excluding filters
C	Koch's steam sterilizer

D	Disinfectant
E	Bactericidal lamps
№	krok 2017
Topic	Meningococci and gonococci.
Task	A smear of purulent exudate from urethra contains gram-negative bean-shaped diplococci with both extra- and intracellular positions. Make the provisional microbiological diagnosis:
Correct answer	Gonorrhoea
B	Syphilis
C	Chlamydiae
D	Trichomoniasis
E	Candidiasis
№	krok 2017
Topic	Sanitary microbiology and virology of water, soil, air.
Task	During investigation of bacterial contamination of air it is necessary to take into account both total amount of microorganisms in a certain volume and qualitative content of microflora. What microorganisms are the sanitary indicators of air contamination within enclosed spaces?
Correct answer	Staphylococcus aureus
B	Colibacillus
C	Hay bacillus
D	Yeast fungi
E	Mold fungi
№	krok 2017, 2016
Topic	Physiology of bacteria. Culture media.
Task	Bacterial culture obtained from patient does not grow when exposed to oxygen. Conditions suitable for bacterial culture growth can be created in:
Correct answer	Anaerobic culture jar

B	Serum-supplemented medium
C	Pasteur oven
D	Krotov apparatus
E	Oxidative medium
№	krok 2017
Topic	Escherichia.
Task	During feces analysis of a 3-month-old child with signs of enteric infection, numerous dark-red colonies has grown on Endo agar. What microorganisms can be the cause of such enteric infection?
Correct answer	Escherichia
B	Streptococci
C	Gonococci
D	Salmonellae
E	Shigella
№	krok 2017, 2016, 2015
Topic	Staphylococci and streptococci. Culture media.
Task	Sedimentation analysis has been applied for assessment of air purity in an aseptic unit of a pharmacy. The test resulted in growth of the small colonies with areas of hemolysis. What medium was used for inoculation?
Correct answer	Blood agar
B	Levine's agar (Eosin Methylene Blue agar)
C	Endo agar
D	Ploskirev's agar
E	Egg-yolk salt agar
№	krok 2017
Topic	Culture media.

Task	During examination of a patient with intestinal infection, inoculation in Endo medium resulted in multi-colored colonies: red and colorless. According to its purpose this medium can be determined as:
Correct answer	Differential diagnostic
B	Universal
C	Special
D	Selective
E	-
№	krok 2017
Topic	Infection.
Task	Since 2005 in Asian and European countries there was recorded unusually high avian flu morbidity. Such spread of epidemic process can be determined as:
Correct answer	Pandemia
B	Epidemic
C	Endemia
D	Sporadic
E	Epizooty
№	krok 2017
Topic	Methods of laboratory diagnostics of the infections.
Task	Microbiological investigation of vaginal suppositories determined them to be contrary to the Pharmacopoeia demands. What microflora was detected in the suppositories, resulting in such a conclusion?
Correct answer	Blue pus bacillus
B	Sarcina
C	Micrococcus
D	Tetracoccus
E	Citrobacter

№	krok 2017
Topic	Herpesviruses.
Task	A patient developed herpetic rashes. What drug should be prescribed in this case?
Correct answer	Acyclovir
B	Gentamicin
C	Clotrimazole
D	Benzympenicillin
E	Biseptol (Co-trimoxazole)
№	krok 2017
Topic	The structure of bacterial cells.
Task	A drug solution sterilized by means of boiling was tested for sterility. Inoculation on Kitt-Tarozzi medium revealed clostridia. Clostridia survived the boiling because they are:
Correct answer	Spore-formers
B	Thermophilic
C	Anaerobic
D	Prototrophic
E	Acid-fast
№	krok 2017
Topic	Microflora of the human organism and its age peculiarities.
Task	A pregnant woman was diagnosed with vaginal dysbacteriosis. What drug should be prescribed in this case?
Correct answer	Probiotic
B	Antibiotic
C	Bacteriophage
D	Interferon
E	Polyvitamins
№	krok 2017, 2015

Topic	Ortho- and paramyxoviruses.
Task	A local general practitioner recommends taking interferon for influenza prevention. What is the mechanism of action of this drug?
Correct answer	Blocks virus protein synthesis
B	Blocks virus stripping
C	Inhibits virion exit from cells
D	Prevents adsorption of virus in cell receptors
E	Disrupts the process of virus assembly
№	krok 2017
Topic	Immunity. Types of immunity.
Task	A child had been administered anti-diphtheric serum. What resistance was formed in the child?
Correct answer	Passive
B	Active
C	Primary
D	Pathologic
E	Physiological
№	krok 2017
Topic	Morphology and ultrastructure of viruses.
Task	In a nursery-garden some medicinal plants developed signs of a disease: there are yellow spots and necrotic foci on the leaves. Sap of the diseased plants remained infectious even after passing through a bacteria-excluding filter. No microorganisms growth was detected on the nutrient medium. What microorganisms could be the cause of this disease?
Correct answer	Viruses
B	Fungi
C	Ray fungi
D	Bacteria

E	Mycoplasma
№	krok 2017, 2016
Topic	The structure of bacterial cells.
Task	Different structures of a bacterial cell perform different functions. What dispensable component of a cell ensures its survival within hostile environment?
Correct answer	Spores
B	Flagella
C	Capsule
D	Cilia
E	Inclusions
№	krok 2017
Topic	Allergy.
Task	In 9 days after administration of a therapeutic serum the patient developed urticaria, itching, edemas, and lymph nodes enlargement. What type of allergic reaction has occurred in the patient?
Correct answer	Immune complex
B	Cytotoxic
C	Anaphylactic
D	Stimulating
E	Cellular
№	krok 2017
Topic	Mycobacteria.
Task	A group of children in the kindergarten (6-year-olds) received Mantoux test; 15 children presented with negative results. What measures should be taken towards these children?
Correct answer	BCG vaccination
B	Tuberculosis antitoxin
C	Isolation

D	Repeat the test
E	Referral for fluorography
№	krok 2016
Topic	Clostridia.
Task	Microbe survival within environment is facilitated by spore formation. What microorganisms of those listed below are spore formers:
Correct answer	Clostridia
B	Bacteroides
C	Staphylococci
D	Peptococci
E	Peptostreptococci
№	krok 2016, 2015, 2011
Topic	Meningococci and gonococci.
Task	Analysis of the cerebrospinal fluid of a child with signs of purulent lesion of brain tunics revealed gram-negative bean-shaped diplococci. What provisional diagnosis can be made based on the analysis results?
Correct answer	Meningitis
B	Gonorrhoea
C	Cholera
D	Plague
E	Anthrax
№	krok 2016, 2015
Topic	Microbiological bases of antimicrobial chemotherapy and antiseptics. Antibiotics.
Task	In the course of long-term treatment of an infectious patient with penicillin, the pathogen transformed into the L-form. What changes occur in the pathogen cell in case of L-transformation?
Correct answer	Absence of a cell wall

B	Absence of flagella
C	Absence of a capsule
D	Absence of a spore
E	Absence of inclusions
№	krok 2016
Topic	Bases of genetic engineering and medical biotechnology.
Task	What enzyme allows for synthesis of various genes from template-RNA to DNA in genetic engineering (this enzyme catalyzes the process discovered in RNA-viruses)?
Correct answer	Reverse transcriptase
B	Exonuclease
C	DNA-ligase
D	Helicase
E	Endonuclease
№	krok 2016
Topic	Corynebacteria.
Task	Smears from tonsillar coating of a patient were stained by Neisser's method. Microscopy revealed thin yellow V-shaped bacilli with dark-blue grains at their ends. Make the preliminary diagnosis:
Correct answer	Diphtheria
B	Measles
C	Tuberculosis
D	Whooping cough
E	Influenza
№	krok 2016
Topic	Immunoprophylaxis.
Task	A pharmaceutical enterprise produces a tetanus-specific preventive drug. Which drug of those listed below is it?

Correct answer	Anatoxin
B	Dead vaccine
C	Live vaccine
D	Immunoglobulin
E	Recombinant vaccine
№	krok 2016
Topic	Infection.
Task	During influenza epidemic a patient with severe case of disease developed hacking cough and chest pain; signs of focal pneumonia were visible on X-ray. Microscopy of sputum detected large number of pneumococci. What type of infection is it?
Correct answer	Secondary
B	Superinfection
C	Aborive
D	Relapse
E	Reinfection
№	krok 2016
Topic	Immunoprophylaxis.
Task	A factory producing typhoid fever vaccine cultivates bacteria of virulent strain in optimal nutrient medium. Then the cells are separated from culture fluid by means of centrifugati-on and processed with formalin. What type of vaccine is it?
Correct answer	Inactivated
B	Attenuated
C	Chemical
D	Anatoxin
E	Autovaccine
№	krok 2016, 2015
Topic	Staphylococci and streptococci.

Task	Microbiological purity of tableted drugs has been tested at a factory. Samples cultivation in mannitol salt agar resulted in growth of golden-yellow colonies, microscopic examination of colonies detected gram-positive globular bacteria positioned in clusters; microorganisms had plasma coagulation properties. What pure bacterial culture was obtained?
Correct answer	<i>Staphylococcus aureus</i>
B	<i>Enterobacteriaceae</i>
C	<i>Staphylococcus epidermidis</i>
D	<i>Staphylococcus saprophyticus</i>
E	<i>Pseudomonas aeruginosa</i>
№	krok 2016, 2015, 2013
Topic	Bases of sanitary microbiology. Sanitary microbiology and virology of water, soil, air.
Task	A sample of water used in drug production has been sent to a laboratory for sanitary and virological analysis. Presence of what virus group will be indicative of faecal contamination of water and, thus, the need for its additional purification?
Correct answer	Picornaviridae
B	Herpesviridae
C	Orthomyxoviridae
D	Retroviridae
E	Flaviviridae
№	krok 2016
Topic	Microbiological bases of antimicrobial chemotherapy and antiseptics. Antibiotics.
Task	Aurococcus culture was obtained from the nasal cavity of a child suffering from chronic tonsillitis. Causative agent's sensitivity towards a number of antibiotics was tested to choose the optimal drug. What drug was not included in antibiotic susceptibility testing?
Correct answer	Nystatin
B	Ampicillin
C	Tetracycline

D	Levomyctin (Chloramphenicol)
E	Erythromycin
№	krok 2016, 2015
Topic	Methods of laboratory diagnostics of the infections.
Task	A ready-made drug was inoculated on Sabouraud's agar and incubated under 22° C for 5 days. This nutrient medium was used to determine the following:
Correct answer	Number of mold and yeast fungi
B	Total number of bacteria
C	Presence of <i>E. coli</i>
D	Presence of <i>S. aureus</i>
E	Presence of <i>Salmonella</i>
№	krok 2016
Topic	Bases of sanitary microbiology. Sanitary microbiology and virology of water, soil, air.
Task	Air contamination with pathological microorganisms can be anticipated by the presence of indicator bacteria. Specify the bacteria that indicate immediate epidemiologic danger:
Correct answer	Hemolytic streptococci
B	Sarcinae
C	Mold fungi
D	Yeast fungi
E	Micrococci
№	krok 2015
Topic	The structure of bacterial cells. Clostridia.
Task	Microbe survival in environment is facilitated by spore formation. What microorganisms of those listed below are spore formers:
Correct answer	Clostridium
B	Bacteroides

C	Staphylococcus
D	Peptococcus
E	Peptostreptococcus
№	krok 2015
Topic	Microbial genetics.
Task	Bacteria rapidly become resistant to drugs in the course of antibacterial treatment. What structural components of bacteria provide for their resistance?
Correct answer	R-plasmids
B	Spores
C	Capsule
D	Flagella
E	Volutine granules
№	krok 2015
Topic	Bases of genetic engineering and medical biotechnology.
Task	What enzyme allows for synthesys of various genes from template-RNA to DNA in genetic engineering (this enzyme catalyzes the process detected in RNA-viruses)?
Correct answer	Reverse transcriptase
B	Exonuclease
C	DNA-ligase
D	Helicase
E	Endonuclease
№	krok 2015, 2011
Topic	Microflora of the human organism and its age peculiarities.
Task	A 3,5-year-old child has been di-agnosed with dysbacteriosis in the form of critical reduction of gram-positive anaerobic bacteria and increased number of staphylococci and yeast fungi. What preparation should be used for the correction of dysbacteriosis?
Correct answer	Bifidumbacterin

B	Colibacterin
C	Coli-Proteus bacteriophage
D	Furazolidone
E	Lactoglobulin
№	krok 2015
Topic	Infection.
Task	A 40-year-old man diagnosed with gastric ulcer has developed the symptoms anew after a long period of dormancy. Such disease course can be characterized as a:
Correct answer	Recurrence
B	Remission
C	Recovery
D	Latency
E	Prodromal phase
№	krok 2015
Topic	Ortho- and paramyxoviruses.
Task	Pharmacy has received viricides. Choose the viricide used for influenza treatment from the list given below:
Correct answer	Rimantadine
B	Metisazone
C	Levamisole
D	Azidothimidine
E	Acyclovir
№	krok 2015
Topic	Corynebacteria.
Task	A student in severe condition was delivered into a contagious isolation ward of a hospital. He is diagnosed with toxic di-phtheria of the pharynx. What drug should be administered immediately for specific treatment and prevention of complicati-ons?

Correct answer	Antidiphtheric serum
B	Diphtheria and tetanus toxoids and pertussis adsorbed vaccine
C	Diphtheria anatoxin
D	Penicillin antibiotic
E	-
№	krok 2015
Topic	Immunity. Types of immunity.
Task	For the specific prevention of influenza the employees of an enterprise were vaccinated with "Influvac". What type of immunity will develop in the body of those vaccinated?
Correct answer	Artificial active
B	Innate congenital
C	Artificial passive
D	Natural active
E	Natural passive
№	krok 2015
Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism. Anaerobic non clostridial infections.
Task	Soil microflora often contains representatives of pathogenic microorganisms. Specify the diseases with causative agents that can remain viable in the soil for a long time:
Correct answer	Tetanus and gas anaerobic infection
B	Tuberculosis and mycobacterioses
C	Colibacillosis and cholera
D	Leptospirosis and plague
E	Typhoid fever and dysentery
№	krok 2014
Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism.

Task	Botulism agent causes severe food toxicoinfection. Point out the most characteristic morphologic feature of botulism agent.
Correct answer	Gram-positive spore-forming bacilli with subterminal spore
B	Thick gram-positive non-spore-forming bacilli
C	Gram-positive spore-forming bacilli with terminal spore
D	Thin mobile spore-forming bacilli with central spore
E	Thick gram-positive non-spore-forming non-filament-forming bacilli
№	krok 2014
Topic	Cultivation of viruses in chicken embryos and in laboratory animals.
Task	Virological laboratory has received patient's nasopharyngeal lavage. What can be used to single out influenza vi-rus from the patient's lavage?
Correct answer	Chick embryo
B	Meat infusion agar
C	Meat infusion broth
D	Endo's medium
E	Lowenstein-Jensen medium
№	krok 2014
Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism.
Task	The following spore-forming bacteria can be preserved in soil over a long period of time: clostridia of tetanus, botulism, anaerobic gas infection. Name the way with which these microorganisms get into soil.
Correct answer	With feces
B	With urine
C	With water
D	With industrial waters
E	With expectoration
№	krok 2014

Topic	Methods of sterilization. Disinfection.
Task	Meat infusion broth is prepared for sterilization in bacteriological laboratory. What sterilization method is advisable?
Correct answer	Autoclaving
B	Ignition
C	Boiling
D	Filtering
E	Dry heat
№	krok 2014
Topic	Methods of microscopic examination. Simple and complex staining.
Task	Capsuliferous bacteria has been detected during microbiological inspection of crude drugs. What method of staining has been used to detect capsules?
Correct answer	Burri-Gins
B	Ziehl–Neelsen
C	Neisser
D	Gram
E	Aujeszky
№	krok 2014
Topic	Medical mycology.
Task	Antibiotics produced by fungi belonging to <i>Penicillium</i> and <i>Aspergillus</i> genera are widely used in medicine. What class do these genera belong to?
Correct answer	Ascomycetes
B	Basidiomycetes
C	Zygomycetes
D	Deuteromycetes
E	Chytridiomycetes
№	krok 2014

Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	The patient has been prescribed oral drug to treat diarrhea. In accordance with who and Pharmacopoeia demands 1 g (ml) of drug has to contain the following number of microorganisms:
Correct answer	1000 bacteria and 100 mold fungi
B	100 bacteria and 10 mold fungi
C	10 bacteria and no mold fungi
D	No bacteria and no mold fungi
E	1000 bacteria and 200 mold fungi
№	krok 2014
Topic	Staphylococci and streptococci.
Task	Microbiological purity of tableted drugs had been tested at factory. Samples cultivation in mannitol salt agar resulted in growth of golden-yellow colonies, microscopic examination of colonies detected gram-positive globular bacteria positioned in clusters; microorganisms had plasma coagulation properties. What pure bacterial culture was obtained?
Correct answer	Staphylococcus aureus
B	Enterobacteriaceae
C	Staphylococcus epidermidis
D	Staphylococcus saprophyticus
E	Pseudomonas aeruginosa
№	krok 2014
Topic	Bases of sanitary microbiology.
Task	The following have been detected in hand lavage of the kindergarten chef: colibacilli, ray fungi, staphylococci, bacilli, mold fungi. What microbes are evidential of fecal contamination of hands?
Correct answer	Colibacilli

B	Ray fungi
C	Staphylococci
D	Bacilli
E	Mold fungi
№	krok 2014
Topic	Ortho- and paramyxoviruses.
Task	A person has been in contact with influenza patient. What drug should be administered for specific passive influenza prophylaxis?
Correct answer	Antigrippal immunoglobulin
B	Vaccine influenza virus inactivated
C	Leukocytic interferon
D	Amizon
E	Anaferon
№	krok 2014
Topic	Immunoprophylaxis.
Task	Which one of the listed substances causes formation of acquired artificial passive immunity?
Correct answer	Tetanus serum
B	BCG vaccine
C	Tetanus anatoxin
D	DPT vaccine
E	-
№	krok 2014
Topic	Cultural properties of bacteria.

Task	In microbiology class students had been growing pure bacterial culture. Bacterial inoculation of solid medium was performed to obtain separate visible colonies, resulting in two colonies, R-type and S-type, grown in thermostat after one day of incubation. What microorganism properties were described by students?
Correct answer	Cultural
B	Tinctorial
C	Biochemical
D	Morphologic
E	Antigenic
№	krok 2014
Topic	Morphology and ultrastructure of viruses.
Task	Infectious agents of various ultrastructures can be etiological agents of infectious diseases. Which of the groups named below has no cellular structure, protein synthesizing, enzyme and energy systems?
Correct answer	Viruses
B	Fungi
C	Bacteria
D	Protozoa
E	Rickettsia
№	krok 2014
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	Production of injections in pharmacies requires strict control of sterilization quality. What is placed in autoclave sterilization chamber to ensure proper control?
Correct answer	Ampoule with microbe spores
B	Ampoule with staphylococcus culture
C	Ampoule with colibacillus culture

D	Ampoule with fungi spores
E	Ampoule with viruses
№	krok 2014
Topic	Mycobacteria.
Task	There is a suspicion of active tuberculosis development in patient. The doctor has appointed Mantoux test to make a diagnosis. What immunobiological agent has to be administered?
Correct answer	Tuberculine
B	BCG vaccine
C	DPT vaccine
D	Tularin test
E	DT vaccine
№	krok 2014
Topic	Methods of laboratory diagnostics of the infections.
Task	At the sixth day since illness onset the patient has been diagnosed with leptospirosis. What sample should be taken for microbiological study of di-sease?
Correct answer	Blood and cerebrospinal fluid
B	Nasopharyngeal lavage
C	Ulcer secretion
D	Lymph node puncture sample
E	Urine and feces
№	krok 2013
Topic	Medical protozoology
Task	A 42-year-old female has foamy-purulent vaginal discharges. The smear stained by Romanovsky-Giemsa's method has been found to include flagellated bacteria. What is the most likely mi-croorganism that has been found by the doctor?
Correct answer	<i>Trichomonas vaginalis</i>

B	<i>Leishmania donovani</i>
C	<i>Trypanosoma gambiense</i>
D	<i>Trichomonas hominis</i>
E	<i>Lamblia intestinalis</i>
№	krok 2013
Topic	Microbiological bases of antimicrobial chemotherapy and antiseptics. Antibiotics.
Task	In course of long-term treatment of an infectious patient with penicillin, the pathogen transformed into the L-form. What changes occur in the pathogen cell in case of L-transformation?
Correct answer	Absence of a cell wall
B	Absence of flagella
C	Absence of a capsule
D	Absence of a spore
E	Absence of inclusions
№	krok 2013, 2012
Topic	Bacillus anthracis.
Task	Quite often, the soil may contain a number of pathogenic microorganisms. The causative agents of the following disease may stay viable in the soil for a long time:
Correct answer	Anthrax
B	Diphtheria
C	Viral hepatitis
D	Pertussis
E	Dysentery
№	krok 2013
Topic	Methods of laboratory diagnostics of the infections.

Task	Bacteriological inspection of disinfection quality at a pharmacy revealed a microorganism in an utility room (in the sink). The microorganism has the following properties: mobile nonspore-forming gram-negative bacteria that form capsular substance, grow well on ordinary nutrient media, secrete the blue-green pigment. This microorganism is most likely to be of the following genus:
Correct answer	<i>Pseudomonas</i>
B	<i>Proteus</i>
C	<i>Clostridium</i>
D	<i>Shigella</i>
E	<i>Vibrio</i>
№	krok 2013, 2012
Topic	The structure of bacterial cells.
Task	Microbiological analysis of medicinal raw materials revealed capsular bacteria. What stain method was used to detect the capsules?
Correct answer	Gin's
B	Ziehl-Neelsen's
C	Neisser's
D	Gram's
E	Ozheshko's
№	krok 2013, 2012
Topic	Methods of sterilization. Disinfection.
Task	Before a surgical operation, a surgeon treated his hands with an alcohol-containing solution. Which group of drugs does this solution relate to?
Correct answer	Antiseptics
B	Disinfectants
C	Sterilizing solutions
D	Detergents

E	Surface-active substances
№	krok 2013
Topic	Methods of laboratory diagnostics of the infections.
Task	A sample of a finished dosage form was found to be contaminated with some microorganisms exhibiting the following properties: greenish fluorescent colonies of gram-negative nonsporeforming bacilli that grew on the medium for the detection of pyocyanin. The bacilli release the blue-green pigment into the medium. What microorganisms contaminated the finished dosage form?
Correct answer	<i>Pseudomonas aeruginosa</i>
B	<i>Enterobacteriaceae</i>
C	<i>Staphylococcus aureus</i>
D	<i>Staphylococcus epidermidis</i>
E	<i>Staphylococcus saprophyticus</i>
№	krok 2013
Topic	Immunoprophylaxis.
Task	Vaccines are the artificial or natural preparations produced from bacteria, vi-ruses and other microorganisms, their chemical components and waste products. They are used for the active immunization of humans and animals for the prevention and treatment of infectious diseases. The attenuated vaccines consist of:
Correct answer	Viable microbes
B	Dead microbes
C	Anatoxin
D	Dead microbes and toxoid
E	Immunoglobulins
№	krok 2013
Topic	Methods of sterilization. Disinfection.

Task	What method of sterilization should be used during the manufacturing liquid dosage forms containing proteins?
Correct answer	Filtering
B	Boiling
C	Gas sterilization
D	Autoclaving
E	Pasteurization
№	krok 2013
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	Many diseases of medicinal plants are caused by bacteria of the Pseudomonas genus. Select the bacteria relating to this genus:
Correct answer	Blue pus bacillus
B	Colon bacillus
C	Proteus
D	Mycoplasma
E	Micrococci
№	krok 2013
Topic	Culture media.
Task	Microbiological studies of air in the pharmacy room revealed the presence of pathogenic staphylococci. Select the medium in which you can detect the lecithinase activity of the isolated microorganism:
Correct answer	Yolk-salt agar
B	Blood agar
C	Bismuth sulfite agar
D	Sugar agar
E	Meat-extract agar

№	krok 2013
Topic	Physiology of bacteria.
Task	For cultivation of Brucella, pure cultures should be incubated in CO_2 enriched atmosphere. What type of breathing is typical for Brucella?
Correct answer	Capnophilic
B	Facultative anaerobic
C	Obligate anaerobic
D	Obligate aerobic
E	Any
№	krok 2013
Topic	Medical protozoology
Task	Some success in reducing malaria transmission was achieved through the mass destruction of transmitting mosquitoes and their larvae. The measures aimed at the destruction of insects are called:
Correct answer	Disinfestation
B	Disinfection
C	Deratization
D	Sterilization
E	Decontamination
№	krok 2013
Topic	Infection.
Task	After a contact with a person having an infectious disease, the disease pathogens entered the patient's body and started to multiply, but the symptoms of the disease were not yet observable. What period of the disease is this typical for?
Correct answer	Latent
B	Prodromal

C	Manifest illness stage
D	Clinical outcome
E	Relapse
№	krok 2013
Topic	Serological method of diagnostics
Task	Allantoic fluid of a chicken embryo contaminated with nasopharyngeal flush of a patient was found to contain a virus. What diagnostic agents should be used to identify it?
Correct answer	Standard antiviral sera
B	Viral diagnosticums
C	Serum preparations
D	Diagnosticums produced of standard virus strains
E	Polyvalent immune diagnostic sera
№	krok 2013
Topic	Brucellosis
Task	A 40-year-old female farmworker has been diagnosed with brucellosis and administered causal chemotherapy. What group of drugs will be used for this purpose?
Correct answer	Antibiotic
B	Donor immunoglobulin
C	Inactivated therapeutic vaccine
D	Polyvalent bacteriophage
E	Antitoxic serum
№	krok 2013
Topic	Neutralization test (NT).
Task	A laboratory received a food product that had been taken from the focus of food poisoning and presumably contained botulinum toxin. To identify the type of toxin, the neutralization reaction must be performed on white mice. What biological product is used in this reaction?
Correct answer	Antitoxic serum

B	Normal serum
C	Antibacterial serum
D	Diagnosticum
E	Allergen
№	krok 2013
Topic	Types of immunity.
Task	For the specific prevention of influenza, the employees of an enterprise were vaccinated with "Influvac". What type of immunity will develop in the body of the vaccinated?
Correct answer	Artificial active
B	Innate congenital
C	Artificial passive
D	Natural active
E	Natural passive
№	krok 2013
Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism.
Task	Soil microflora often includes the representatives of pathogenic microorganisms. Specify the diseases, whose causative agents may stay viable in the soil for a long time:
Correct answer	Tetanus and gas anaerobic infection
B	Tuberculosis and mycobacterioses
C	Colibacillosis and cholera
D	Leptospirosis and plague
E	Typhoid fever and dysentery
№	krok 2012
Topic	Clostridia of wound anaerobic infection. tetanus. botulism.
Task	The causative agent of botulism causes severe food poisoning. Specify the most characteristic morphological feature of botulism causative agent:
Correct answer	Gram-positive bacillus with subterminal spore

B	Thick gram-positive non-spore-forming bacillus
C	Gram-positive bacillus with terminal spore
D	Thin mobile bacillus with central spore
E	Thick gram-positive bacillus without spores and flagella
№	krok 2012
Topic	Methods of laboratory diagnostics of the infections.
Task	Bacteriological inspection of disinfection quality at a pharmacy revealed a microorganism in an utility room (in the sink). The microorganism has the following properties: mobile nonsporeforming gram-negative bacteria that form capsular substance, grow well on ordinary nutrient media, secrete the blue-green pigment. This microorganism is most likely to be of the following genus:
Correct answer	<i>Pseudomonas</i>
B	<i>Proteus</i>
C	<i>Clostridium</i>
D	<i>Shigella</i>
E	<i>Vibrio</i>
№	krok 2012
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	In accordance with the requirements of the pharmacopoeia, the non-sterile medicinal preparations may include microorganisms. What microorganisms have not be present in them?
Correct answer	Enterobacteria
B	Ascomycetes
C	Micrococci
D	Mold fungi
E	Sarcinae

№	krok 2012
Topic	Yersinia.
Task	A patient presents with fever, chill and cough. From his sputum the ovoid Gram-negative bipolarstained bacilli with a delicate capsule were isolated. What is the most likely diagnosis?
Correct answer	Plague
B	Tuberculosis
C	Leptospirosis
D	Brucellosis
E	Toxoplasmosis
№	krok 2012
Topic	Pathogenic spirochaetae.
Task	Bacterioscopic examination of chancre material revealed some mobile, long, convoluted microorganisms with 8-regular coils. These features are typical for:
Correct answer	Treponema
B	Borrellia
C	Leptospira
D	Vibrios
E	Campylobacter
№	krok 2012
Topic	Medical mycology
Task	In order to establish the possible contamination of a medication with fungi, a nutrient medium was inoculated, which resulted in growth of large cream-like colonies. What nutrient medium was used in this case?
Correct answer	Sabouraud
B	Lowenstein-Jensen
C	Roux

D	Loeffler
E	Finn-2
№	krok 2012
Topic	Microflora of the human organism
Task	Dysbiosis can be treated with drugs that contain living representatives of normal microflora as well as their metabolic products. Select the microorganisms that are used for the production of such drugs:
Correct answer	Bifidus bacteria
B	Staphylococcus aureus
C	Proteus
D	Providencia
E	Yersinia
№	krok 2012
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	The medicinal plants growing on a plantations were found to have mosaic patterns on leaves. What microorganisms caused this affection?
Correct answer	Phytopathogenic viruses
B	Phytopathogenic bacteria
C	Phytopathogenic fungi
D	Protozoa
E	Rickettsiae
№	krok 2012
Topic	Microbiological bases of antimicrobial chemotherapy and antiseptics. Antibiotics
Task	Bacteria eventually become resistant to antibacterial agents. Resistance of gram-positive bacteria to penicillin antibiotics is caused by:
Correct answer	Beta-lactamase production

B	Permeability of the cell wall
C	Active synthesis of peptidoglycan
D	Active transport of antibiotic
E	Protein synthesis
№	krok 2012
Topic	Medical mycology
Task	Mycothallus of the fungus under study consists of a stipe, pileus, lamellar hymenophore. This fungus belongs in the class:
Correct answer	Basidiomycetes
B	Ascomycetes
C	Zygomycetes
D	Deuteromycetes
E	Oomycetes
№	krok 2012
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	A laboratory received a sample of water used in drug production for sanitary and virological analysis. What group of viruses will indicate faecal contamination of water and thus the need for its additional purification?
Correct answer	Picornaviridae
B	Herpesviridae
C	Orthomyxoviridae
D	Retroviridae
E	Flaviviridae
№	krok 2012
Topic	Physiology of bacteria.

Task	A patient was taken to a hospital with acute food poisoning caused by home-made canned mushrooms. The product analysis revealed some microorganisms that develop only in the absence of oxygen. What microorganisms caused the poisoning?
Correct answer	Obligate anaerobes
B	Facultative anaerobes
C	Microaerophiles
D	Obligate aerobes
E	Capnophiles
№	krok 2012
Topic	Bases of sanitary microbiology.
Task	During a survey of the sanitary state of an environment object perfringens titre was determined. What object was studied?
Correct answer	Soil
B	Outdoor air
C	Water from an open water reservoir
D	Tap water
E	Indoor pharmacy air
№	krok 2012
Topic	Types of immunity.
Task	Seroprophylaxis and serotherapy of infectious diseases involves using immune sera. What type of immunity is thus acquired?
Correct answer	Passively acquired artificial immunity
B	Actively acquired artificial immunity
C	Actively acquired natural immunity
D	Passively acquired natural immunity
E	-
№	krok 2011, 2008

Topic	Microbiological bases of antimicrobial chemotherapy and antiseptics. Antibiotics
Task	Antibiotics can be classified according to various principles. According to the action mechanism cephalosporins relate to the following group:
Correct answer	Inhibitors of cell wall synthesis
B	Inhibitors of protein synthesis
C	Inhibitors of respiratory processes
D	Inhibitors of oxidative phosphorylation
E	Inhibitors of cytoplasmic membrane synthesis
№	krok 2011, 2010, 2009, 2008
Topic	Medical mycology
Task	Plant pathogenic microorganisms relate to various groups. Which of them causes diseases of medicinal plants most often?
Correct answer	Fungi
B	Viruses
C	Bacteria
D	Actinomycetes
E	Mycoplasma
№	krok 2011, 2010
Topic	Mycobacteria.
Task	For tuberculosis prevention the newborns got an injection of a vaccine. What vaccine was used?
Correct answer	BCG
B	Mantoux
C	DTaP vaccine
D	Anatoxin
E	Oral polio vaccine (Sabin vaccine)
№	krok 2011

Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism.
Task	A patient has a necrotizing phlegmon of his lower extremity. A doctor suspects a gas gangrene. Microscopy reveals grampositive bacilli. In order to confirm the diagnosis further bacteriological tests should include inoculation of the material into the following nutrient medium:
Correct answer	Kitt-Tarozzi medium
B	Endo agar
C	Levine agar
D	Meat-peptone agar
E	Milk-salt agar
№	krok 2011, 2009
Topic	Rhabdoviruses.
Task	A female patient bitten by a stray dog came to a surgery. Wide lacerated wounds were localized on the patient's face. What treatment-and prevention aid should be rendered in order to prevent rabies?
Correct answer	Immunization with the antirabic vaccine
B	Combined antibiotic therapy
C	Hospitalization, injection of diphtheria-pertussis-tetanus vaccine
D	Hospitalization, medical surveillance
E	Urgent injection of normal gamma-globulin
№	krok 2011
Topic	Serological method of diagnostics.
Task	Mass serological diagnosis of HIV infection is made by means of enzyme-linked immunosorbent assay techniques. What standard component of the reaction must be adsorbed on the solid phase of the test system?
Correct answer	HIV antigens
B	Monoclonal HIV antibodies

C	Enzyme-marked HIV antibodies
D	Specific immunoglobulins
E	Substrates to determine enzyme activity
№	krok 2011, 2009
Topic	Bases of sanitary microbiology.
Task	Presence of the pathogenic microorganisms in the air can be prognosticated according to the content of sanitary-indicative bacteria. Which bacteria indicate immediate epidemiologic danger?
Correct answer	Haemolytic streptococci
B	Sarcinae
C	Mold fungi
D	Yeast fungi
E	Micrococci
№	krok 2011, 2010
Topic	Microbial genetics.
Task	Bacteria may contain not only chromosomal but also nonchromosomal hereditary elements called plasmids. Presence of plasmid genes can show itself by:
Correct answer	Multiple drug resistance
B	Stain resistance
C	Physical factor resistance
D	Sporogenesis ability
E	Mobility
№	krok 2011
Topic	Immunoprophylaxis. Immunotherapy.
Task	Anti-tetanus gamma globulin is produced by hyperimmunization of donors with tetanus anatoxin. What class of immunoglobulins prevails in this preparation?
Correct answer	IgG

B	IgA
C	IgM
D	IgE
E	IgD
№	krok 2011, 2010
Topic	Methods of microscopic examination. Main bacterial shapes.
Task	When a smear is stained by Burry-Gins method a mucous structure that is tightly bound with the cellular wall of bacteria and has well-defined outer boundaries can be detected. This element of a bacteria cell is called:
Correct answer	Capsule
B	Spore
C	Filaments
D	Ribosomes
E	Episomes
№	krok 2011, 2010
Topic	Bases of sanitary microbiology.
Task	Sanitary-biologic examination of air in a drugstore revealed a sanitary-indicative microorganism. Name it:
Correct answer	Staphylococcus aureus
B	Colon bacillus
C	Fecal enterococcus
D	Alpha-haemolytic streptococcus
E	Citrobacter
№	krok 2011
Topic	Mycoplasmas.

Task	Examination of procured medicinal herbs grown in a warm climate revealed their affection in form of yellowing, overgrowth of lateral shoots, dwarfism, delayed fruiting. Which organisms can cause such changes?
Correct answer	Mycoplasma
B	Viruses
C	Bacteria
D	Fungi
E	Protozoa
№	krok 2011
Topic	Bases of sanitary microbiology.
Task	Sanitary microbiological analysis of the indoor air of a pharmacy carried out in summer revealed presence of <i>Streptococcus haemolyticus</i> and <i>Streptococcus viridians</i> at the rate of 40 microorganisms per 1 m ³ . Specify the microbiological characteristic of the air:
Correct answer	Contaminated
B	Within the permissible limits
C	Almost pure
D	Pure
E	These microorganisms are not the determinants of the air quality
№	krok 2011
Topic	Corynebacteria.
Task	It is necessary to carry out preventive vaccination of a student group because of an occurrence of diphtheria. Which preparation should be used for the creation of the artificial active immunity?
Correct answer	Diphtheria anatoxin
B	Specific immunoglobulin
C	DTP vaccine

D	Inactivated bacteria vaccine
E	Anti-diphtheria serum
№	krok 2011
Topic	Human immune system. Humoral and cellular immune response.
Task	Humoral immune response to an antigen results in generation of antibodies produced by plasmacytes. Plasmacytes arise as a result of immunostimulated division from the following cells of immune system:
Correct answer	B-lymphocytes
B	Monocytes
C	Granulocytes
D	T-helpers
E	T-killers
№	krok 2010
Topic	Microbiological bases of antimicrobial chemotherapy and antiseptics. Antibiotics
Task	Study of the antibioticogram of the pure salmonella culture revealed multiple antibiotic resistance. What factor might have caused this effect?
Correct answer	R-plasmids
B	Chromosomal mutations
C	F-plasmids
D	Temperate phages
E	Transposons
№	krok 2010
Topic	Salmonella of enteric typhus and paratyphoids.
Task	A patient is suspected to have the typhoid fever. What method of laboratory diagnostics would be the most appropriate for confirmation of this diagnosis in the first week of disease?
Correct answer	Hemoculture identification

B	Urine culture identification
C	Myeloculture identification
D	Biliculture identification
E	Coproculture identification
№	krok 2010, 2009, 2008
Topic	Cultivation of viruses in chicken embryos and in laboratory animals.
Task	Inoculation of hen's embryos is the main method of detection of influenza virus. In order to neutralize associated bacterial flora in the material under examination (nasopharyngeal lavage) it is necessary to add beforehand:
Correct answer	Antibiotics
B	Eubiotics
C	Fluorescent serum
D	Leukocytic interferon
E	Ant-influenza gamma globulin
№	krok 2010, 2009
Topic	Morphology and cell structure of spirochaeta, actinomycetes, fungi and protozoa.
Task	Aetiological factors for the infectious diseases are often microorganisms with various ultrastructure. Which of the following microorganism groups relates to the eucariots?
Correct answer	Protozoa
B	Viruses
C	Viroids
D	Prions
E	Scotobacteria
№	krok 2010, 2009
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.

Task	After a bacteriological analysis a tableted medication has been found to be inapplicable, though its general microbial contamination was within the norm. The reason for such a conclusion was the presence of the following microorganisms:
Correct answer	Enterobacteria
B	Mold fungi
C	Actinomycetes
D	Micrococci
E	Sarcinae
№	krok 2010
Topic	Mycoplasmas.
Task	From a medicinal herb a certain phytopathogenic microorganism was secured. In the nutrient medium it forms "fried egg" colonies. What is the most likely agent?
Correct answer	Mycoplasma
B	Yeast fungi
C	Actinomycetes
D	Nocardia
E	Pseudomonades
№	krok 2010
Topic	Yersinia.
Task	A patient presents with fever, chill and cough. From his sputum the ovoid Gramnegative bipolarstained bacilli with a delicate capsule were secured. What is the most likely diagnosis?
Correct answer	Plague
B	Tuberculosis
C	Leptospirosis
D	Brucellosis
E	Toxoplasmosis

№	krok 2010
Topic	Features of infection and immunity during viral diseases.
Task	A drugstore received a supply of a drug that is widely used for treatment of many virus diseases since it is not virus specific. What drug is it?
Correct answer	Interferon
B	Remantadin
C	Metisazone
D	Immunoglobulin
E	Vaccine
№	krok 2009
Topic	Staphylococci and streptococci
Task	It is suspected that the workers of a serum drugs plant at a regional hemotransfusion station are carriers of pathogenic staphylococcus aureus. In order to detect staphylococcus carriage, the material from the nasopharynx of the workers should be inoculated into the following medium:
Correct answer	Egg-yolk-salt agar
B	Endo agar
C	Meat infusion broth
D	Kessler medium
E	Blood agar
№	krok 2009
Topic	Staphylococci and streptococci
Task	Analysis of sputum obtained from a patient with suspected pneumonia revealed grampositive diplococci. They were slightly elongated, with the pointed opposite ends. What microorganisms were revealed in the sputum?
Correct answer	<i>Streptococcus pneumoniae</i>
B	<i>Staphylococcus aureus</i>

C	<i>Klebsiella pneumoniae</i>
D	<i>Neisseria meningitidis</i>
E	<i>Streptococcus pyogenes</i>
№	krok 2009, 2008
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	Examination of air state in drugstore premises for preparation of injection drugs was done by method of sedimentation. It revealed 5 small roundish colonies with zone of hemolysis around them. Inoculations were made on the following cultural medium:
Correct answer	Blood agar
B	Endo agar
C	Meat infusion agar
D	Egg yolk and salt agar
E	Lewin's agar
№	krok 2009
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	According to the Pharmacopoeia requirements, all drugs for al administration should be tested for “microbiological purity”. Inapplicability of this drug group in the medical practice is indicated by presence of the following microorganisms:
Correct answer	Staphylococcus aureus
B	Yeast fungi
C	Saprophytic staphylococci
D	Mold fungi
E	Sarcinae
№	krok 2009
Topic	Meningococci and gonococci.

Task	From a patient with the symptoms of acute meningitis the spinal fluid was taken. Its smears contained gramnegative diplococci within the leukocytes and outside them. Which microorganism is the most likely cause of the disease?
Correct answer	<i>Neisseria meningitidis</i>
B	<i>Haemophilus influenzae</i>
C	<i>Streptococcus pneumoniae</i>
D	<i>Candida albicans</i>
E	<i>Escherichia coli</i>
№	krok 2009
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	A pharmaceutical factory received a batch of crude herbal drugs for phytomedicines production. To evaluate quality of these crude drugs it is necessary to determine:
Correct answer	Total number of microorganisms pro 1g of the crude drug
B	Coli titer
C	Coli index
D	Antimicrobial
E	Pyrogens
№	krok 2009
Topic	Immunity.
Task	The leukocytes that are the first to appear in a focus of inflammation are called:
Correct answer	Neutrophils
B	Monocytes
C	Eosinophils
D	Lymphocytes
E	Basophils
№	krok 2009

Topic	Brucellosis
Task	Medical examination of a dairymaid revealed affection of the locomotive system, vision impairment, disorder of the nervous and other systems. To confirm the diagnosis the patient was referred for a serological assay (Wright's reaction) and Burnet's skin allergy test. What was the provisional diagnosis?
Correct answer	Brucellosis
B	Tularemia
C	Anthrax
D	Rheumatism
E	Leptospirosis
№	krok 2009
Topic	Ortho- and paramyxoviruses.
Task	Epidemic of influenza was announced in a town. Which drug can be recommended for the nonspecific prophylaxis of influenza?
Correct answer	Leukocytic interferon
B	Anti-influenza vaccine
C	Antibiotics
D	Anti-influenza immunoglobulin
E	Anti-influenza serum
№	krok 2008
Topic	Methods of microscopic examination.
Task	During microbiological inspection of crude drugs encapsulated bacteria were revealed. What method was applied for capsule detection?
Correct answer	Burry-Gins
B	Ziehl-Neelsen
C	Neisser
D	Gram

E	Ozheshko
№	krok 2008
Topic	Bases of sanitary microbiology.
Task	During sanitary and bacteriological examination of air in a drugstore it was revealed that the air had high concentration of sanitary meaningful microorganisms. What microorganisms are these?
Correct answer	Staphylococcus aureus and hemolytic streptococcus
B	Diphtheritic and tuberculous bacilli
C	Colibacilli and blue pus bacilli
D	Epidermal staphylococcus and Sarcina
E	Enterococci and Citro bacter
№	krok 2008
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	Bacteriological control of unsterile drugs allows presence of small quantity of some microorganism groups. What group is meant?
Correct answer	Sarcina
B	Colon bacillus
C	Bacillus pynocyaneus
D	Staphylococcus aureus
E	Hemolytic streptococcus
№	krok 2008
Topic	Medical mycology
Task	Crude herbal drugs must be examined for yeastlike fungi. What agar can ensure development of these microorganisms so that associating microflora will grow very slowly or won't grow at all?
Correct answer	Sabouraud's peptone agar

B	Endo agar
C	Meat infusion agar
D	Milk-salt agar
E	Blood agar
№	krok 2008
Topic	Escherichia.
Task	During bacteriological analysis of solutions prepared in a pharmacy some red colonies with metallic glitter have grown on Endo agar. What microbes were revealed?
Correct answer	Escherichia
B	Shigella
C	Staphylococci
D	Streptococci
E	Salmonella
№	krok 2008
Topic	Medical mycology
Task	A female patient has been treated with antibiotics for a long time. Thereafter examination of smears from vaginal secretion revealed oval cells with well-defined nucleus, some cells gemmate. What preparations can help to confirm the diagnosis "candidosis"?
Correct answer	Antifungal
B	Antibacterial
C	Antichlamydial
D	Antiviral
E	Antiprotozoal
№	krok 2008
Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism.
Task	A patient diagnosed with botulism was admitted to the infectious disease hospital. What medication should be applied in the first place?

Correct answer	Antitoxic serum
B	Anatoxin
C	Antibiotics
D	Sulfanilamides
E	Nitrofurans
№	krok 2008
Topic	Medical protozoology
Task	A 13 year old child complains about poor appetite, pain in the right subcostal area. Microscopical examination of duodenal contents revealed big pyriform cells with two nuclei. What microorganism was revealed?
Correct answer	Lambliia
B	Trichomonad
C	Amoeba
D	Trypanosoma
E	Toxoplasma
№	krok 2008, 2007
Topic	Morphology and ultrastructure of viruses.
Task	A plantation of medicinal plants was affected by a disease that caused yellow spots and necrotic areas on leaves. Juice of affected plants remains infectious even after bacterial filtration but after its inoculation on cultural medium growth of causative agent wasn't observed. Causative agent of this disease relates most probably to the following group of plant pathogenic microorganisms:
Correct answer	Viruses
B	Fungi
C	Actinomycetes
D	Bacteria
E	Mycoplasma

№	krok 2008
Topic	Salmonella – causative agents of acute gastroenterocolitis.
Task	A patient was admitted to the infectious department of a hospital. His provisional diagnosis was "acute gastroenteritis". Inoculation of feces on bismuthsulfite agar induced growth of black colonies with metallic glitter. What microorganisms should you think of?
Correct answer	Salmonellae
B	Escherichia
C	Shigella
D	Yersinia
E	Brucella
№	krok 2008
Topic	Physiology of bacteria.
Task	A bacterial cell obtains nutrients by different ways. One of them is the facilitated diffusion that is realized by special membrane carrier proteins. What are these proteins called?
Correct answer	Permeases
B	Lyases
C	Oxidoreductases
D	Isomerizing enzymes
E	Ligases
№	krok 2008, 2007
Topic	Methods of sterilization. Disinfection.
Task	What method ensures reliable sterilization of biological fluids (sera, solutions, enzymes, vitamins etc.) that can't stand high temperatures?
Correct answer	Tyndallization
B	Dry-heat sterilization
C	Flowing steam
D	Moist steam under pressure

E	Flaming
№	krok 2007
Topic	Methods of sterilization. Disinfection.
Task	In order to keep vitality and stability of eubiotics microorganisms in frozen state are dried under conditions of high vacuum. What method is it?
Correct answer	Lyophilization
B	Pasteurization
C	Tyndallization
D	Inactivation
E	Hybridization
№	krok 2007
Topic	Immunoprophylaxis.
Task	Bacteritic preparations are subdivided into groups according to their purpose and production principles. What group do the preparations for initiation of active immunity relate to?
Correct answer	Vaccines
B	Immune sera
C	Immunoglobulins
D	Monoclonal antibodies
E	Bacteriophages
№	krok 2007
Topic	Bases of sanitary microbiology.
Task	Sanitary and bacteriological examination of air in drug-store premises revealed increased content of sanitary representative microorganisms. What microorganisms are these?
Correct answer	Golden staphylococcus and hemolytic streptococcus
B	Diphtheria and tuberculosis bacilli
C	Colon and blue pus bacilli

D	Epidermal stafilococcus and sarcina
E	Enterococci and cytrobacter
№	krok 2007
Topic	Esherichia.
Task	During bacteriological examination of solutions prepared in a drug-store there appeared red colonies with metallic lustre that grew on Endo agar. What bacteria can they be?
Correct answer	Escherichiae
B	Shigellae
C	Staphilococci
D	Streptococci
E	Salmonellae
№	krok 2007
Topic	Sanitary microbiological methods of examination of the plant raw materials and prepared medicines.
Task	A pharmaceutical factory received a batch of phytogenic raw materials for manufacturing of phytomedications. What microbiological test should be applied in order to estimate quality of these raw materials?
Correct answer	General amount of microorganisms in 1 g of raw material
B	Coli titer
C	Coli index
D	Antibacterial activity
E	Pyrogens
№	krok 2007
Topic	Bases of sanitary microbiology.
Task	Presence of pathogenic microorganisms in the air can be detected by presence of sanitary representative bacteria. Choose bacteria that are indicators of direct epidemiological danger:
Correct answer	Hemolytic streptococci

B	Sarcina
C	Molds
D	Yeast fungi
E	Micrococci
№	krok 2007
Topic	Salmonella – causative agents of acute gastroenterocolitis.
Task	A patient with provisional diagnosis "acute gastroenteritis" was admitted to infectious department. Inoculation of feces on bismuth-sulfite agar resulted in growth of black colonies with metallic lustre. What microorganisms might they be?
Correct answer	Salmonella
B	Shigella
C	Escherichia
D	Yersinia
E	Brucella
№	krok 2007
Topic	Physiology of bacteria.
Task	Nutrients are transported to a bacterial cell by different mechanisms. One of them is facilitated diffusion that is realized by special membrane carrier proteins. What are they called?
Correct answer	Permeases
B	Lyases
C	Oxidoreductases
D	Isomerases
E	Ligases
№	krok 2018
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection

Task	Many drugs must be manufactured under strictly aseptic conditions. One such possible source of microbiological contamination of drugs is laboratory glassware. What method should be used to sterilize the glassware?
Correct answer	Dry heat
B	Ignition
C	Boiling
D	Tyndallization
E	Pasteurization
№	krok 2018
Topic	Staphylococci and streptococci. Meningococci and gonococci.
Task	Cerebrospinal fluid of a patient diagnosed with meningitis was taken for analysis. To detect the causative agent the sample was inoculated in a nutrient medium. Prior to that a serum had been added to the medium. What causative agent is expected to be obtained in this case?
Correct answer	Meningococcus
B	Mycobacteria
C	Staphylococcus
D	Viruses
E	Rickettsia
№	krok 2018
Topic	Mycobacteria. Actinomycetes.
Task	A structural analog of vitamin <i>PP</i> (nicotinic acid) is used as an antituberculous medicine. Name this medicine:
Correct answer	Isoniazid
B	Streptocide
C	Riboflavin
D	Tetracycline

E	Aspirin
№	krok 2018
Topic	Morphology, structure, cultivation of viruses. Prions. Viroids. Methods of laboratory diagnostics of viral infections
Task	The defensive mechanisms against some infectious diseases can be greatly reinforced with interferon. Interferon preparations will be the most advisable in cases of the following type of infections:
Correct answer	Viral
B	Helminthic
C	Protozoal
D	Microbioses
E	Fungal
№	krok 2018
Topic	Microbiological basics of antimicrobial chemotherapy and antiseptics
Task	A chemotherapeutic agent has bactericidal effect against streptococci, staphylococci, bacilli, and clostridia. According to its action spectrum this drug belongs to the following group:
Correct answer	Broad spectrum antibacterial agents
B	Narrow spectrum antibacterial agents
C	Broad spectrum antifungal agents
D	Antiviral agents
E	Antituberculous agents
№	krok 2018
Topic	RNA-genomic viruses: orthomyxoviruses, paramyxoviruses, picornaviruses, rhabdoviruses, arboviruses.
Task	A certain infection leads to fetus malformation if a pregnant woman is affected. What vaccine should be used for prevention of this infection?

Correct answer	Rubella virus vaccine
B	Influenza virus vaccine
C	Mumps vaccine
D	Poliovirus vaccine
E	Antirabic vaccine
№	krok 2018
Topic	Hepatitis viruses. Oncoviruses. HIV.
Task	HIV-infection occupational risk groups include people of various professions, healthcare workers included. Specify the most likely route of infection transmission for healthcare workers:
Correct answer	Parenteral transmission
B	Fecaloral transmission
C	Droplet transmission
D	Transmission via airborne dust particles
E	Vectorborne transmission
№	krok 2018
Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism.
Task	Microbial survival within environment is facilitated by spore formation. What microorganisms of those listed below are spore formers:
Correct answer	Clostridia
B	Bacteroides
C	Staphylococci
D	Peptococci
E	Peptostreptococci
№	krok 2018
Topic	Staphylococci and streptococci. Meningococci and gonococci.

Task	After the pus sample taken from the urethra had been inoculated on ascitic agar, it resulted in growth of round transparent colonies. Microscopy of the colonies shows gram-negative kidney bean-shaped diplococci. What causative agent is it?
Correct answer	Gonococcus
B	Pneumococcus
C	Meningococcus
D	Micrococcus
E	Streptococcus
№	krok 2018
Topic	Sanitary and microbiological methods of research of medicinal plant material and prepared dosage forms.
Task	During assessment of air purity in an aseptic unit of a pharmacy, sedimentation analysis had been applied. Test resulted in growth of the small colonies with areas of hemolysis. What medium was used for inoculation?
Correct answer	Blood agar
B	Levine's formulation (Eosin Methylene Blue agar)
C	Endo agar
D	Ploskirev's agar
E	Egg-yolk salt agar
№	krok 2018
Topic	Immune pathology: allergy, concept of immune status, immunodeficiencies.
Task	A 25-year-old man has an appointment with the dentist. Several minutes after his oral cavity was lavaged with furacilin (nitrofurazone) the patient developed significant labial edema. What type of allergic reaction is observed in this case?
Correct answer	Anaphylactic
B	Delayed-type hypersensitivity
C	Cytolytic

D	Stimulated
E	Immune complex
№	krok 2018
Topic	Infection doctrine. Biological method of examination
Task	Causative agents of infectious diseases can be carried both by humans and animals. Name the group of infections that affect animals and can be passed onto humans:
Correct answer	Zooanthroponoses
B	Sapronoses
C	Anthroponoses
D	Zoonoses
E	Mixed
№	krok 2018
Topic	Immunity. Types of immunity. Immune system. Antigens. Antibodies. Non-specific factors of defense. Complement system. Phagocytosis.
Task	In the age of 5 months the child had measles antibodies in the blood. By the age of 1 year these antibodies disappeared from the child's blood. Why were these antibodies present in the child's blood?
Correct answer	Acquired natural passive immunity
B	Non-specific resistance
C	Acquired natural active immunity
D	Innate immunity
E	Artificial immunity
№	krok 2018
Topic	Pathogenic fungi. Pathogenic protozoa.
Task	A Gram stained smear shows large oval violet cells that form pseudomycelium. Name these microorganisms:
Correct answer	<i>Candida</i> fungi

B	<i>Mucor</i> fungi
C	<i>Plasmodium vivax</i>
D	<i>Actinomyces</i>
E	<i>Penicillium</i> fungi
№	krok 2018
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection
Task	A dry-heat box is used for sterilization of various materials and instruments in a bacteriological laboratory. This sterilization method can be applied to the following objects:
Correct answer	Glass test tubes
B	Rubber gloves
C	Simple nutrient medium
D	Wire inoculating loops
E	Physiological saline
№	krok 2018
Topic	Microbiological basics of antimicrobial chemotherapy and antiseptics
Task	What is the main mechanism of benzylpenicillin bactericidal action on the coccal flora?
Correct answer	Disturbed synthesis of microbial cell wall
B	Inhibition of protein synthesis
C	Disturbed cytoplasmic membrane permeability
D	Activation of macroorganism immune system
E	Increased phagocytic activity of leukocytes
№	krok 2018
Topic	Infection doctrine. Biological method of examination
Task	Sanitary microbiological investigation of potable water has detected coliphages. What conclusion can be made about the sanitaryhygienic status of this water?
Correct answer	Fecal contamination
B	The water is safe to drink

C	The water is safe to drink after boiling
D	Artesian water
E	The water is for industrial use only
№	krok 2018
Topic	Sanitary and microbiological methods of research of medicinal plant material and prepared dosage forms
Task	Investigation of bacterial contamination of indoor air in a pharmacy takes into account the total number of microorganisms present in a certain air volume, as well as qualitative content of indoor air microflora. Name the sanitary-indicative microorganisms for indoor air:
Correct answer	Staphylococcus and streptococcus
B	Colibacillus
C	Sarcina
D	Chromobacterium
E	Fungi and yeasts
№	krok 2018
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection
Task	Preliminary disinfection of air and working surfaces of the equipment was conducted in the operating room of the surgical inpatient unit. What method of sterilization would be the most advisable in this case?
Correct answer	Ultraviolet irradiation
B	Irradiation sterilization
C	High-frequency current
D	Flowing steam
E	Formaldehyde vapor
№	krok 2018
Topic	Sanitary and microbiological methods of research of medicinal plant material and prepared dosage forms

Task	In a nursery-garden some medicinal plants developed signs of a disease: there are yellow spots and necrotic foci on the leaves. Sap of the diseased plants remained infectious even after passing through a bacteria-excluding filter. No microorganisms growth was detected on the nutrient medium. What microorganisms could be the cause of this disease?
Correct answer	Viruses
B	Fungi
C	Ray fungi
D	Bacteria
E	Mycoplasma
№	krok 2018
Topic	RNA-genomic viruses: orthomyxoviruses, paramyxoviruses, picornaviruses, rhabdoviruses, arboviruses.
Task	A pharmacy has received a batch of drugs for treatment of upper respiratory tract infection. What drug is used to treat influenza?
Correct answer	Rimantadine
B	Methisazone
C	Levamisole
D	Idoxuridine
E	Doxycycline
№	krok 2018
Topic	Immunity. Types of immunity. Immune system. Antigens. Antibodies. Non-specific factors of defense. Complement system. Phagocytosis.
Task	Mother of a 10-year-old child came to the pharmacy to obtain a drug for prevention of upper respiratory tract infections. What drug would be recommended by the dispensing chemist?
Correct answer	Interferon
B	Benzoteph

C	Carvedilol
D	Tetracycline
E	Doxorubicin
№	krok 2018
Topic	Immunity. Types of immunity. Immune system. Antigens. Antibodies. Non-specific factors of defense. Complement system. Phagocytosis
Task	It can be safely assumed that the infants born from the mothers with the history of measles will not be affected by the measles outbreak during their stay in the maternity ward. What classes of antibodies provide the infants with the resistance to this disease?
Correct answer	IgG
B	IgA
C	IgD
D	IgM
E	IgE
№	krok 2018
Topic	RNA-genomic viruses: orthomyxoviruses, paramyxoviruses, picornaviruses, rhabdoviruses, arboviruses
Task	The children attending a kindergarten were hospitalized with diagnosis of poliomyelitis. What was the route of infection transmission in this case?
Correct answer	Fecal-oral transmission
B	Alimentary transmission
C	Direct contact transmission
D	Transmission via airborne dust particles
E	Vector-borne transmission
№	krok 2018-2019
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection

Task	To obtain bacterial exotoxins, microorganisms are cultivated in a liquid nutrient medium, into which the toxins are being discharged. What method allows clearing the medium of microorganisms, so that only pure exotoxins will remain in the medium?
Correct answer	Filtration through bacterial filters
B	Boiling
C	Autoclaving
D	Ultraviolet irradiation
E	Application of disinfectants (Chloramine)
№	krok 2018-2019
Topic	Causative agents of cholera. Causative agents of zoonotic infections.
Task	In the course of bacteriological examination of the feces of a patient with diarrhea, a pure culture of slightly curved bacilli was obtained. In the microslide these microorganisms were arranged in clusters resembling schools of fish. Cultivation in the alkaline medium (alkaline peptone water) in six hours resulted in formation of a bluetinged film. These features are characteristic of the following causative agent:
Correct answer	Vibrio cholerae
B	Colibacilli
C	Salmonellae
D	Spirochetes
E	Mycobacteria
№	krok 2018-2019
Topic	Pathogenic Salmonellae: pathogens of typhoid fever and paratyphoid, gastroenterocolitis.
Task	One day after eating meatballs in the school canteen, several students came to the nurse's office complaining of stomachache, vomiting, high body temperature, and diarrhea. One of the students was hospitalized in a severe condition. What microorganisms can be the cause of this food toxicoinfection?
Correct answer	Salmonellae

B	Streptococci
C	Clostridiae
D	Shigellae
E	Meningococci
№	krok 2018-2019
Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism.
Task	For tetanus prevention a certain toxin is used. For 4 weeks this toxin is being neutralized with formaldehyde (0.4%) under the temperature of 39° C . Name the resulting preparation:
Correct answer	Anatoxin
B	Immunoglobulin
C	Antitoxic serum
D	Adjuvant
E	Inactivated vaccine
№	krok 2018-2019
Topic	RNA-genomic viruses: orthomyxoviruses, paramyxoviruses, picornaviruses, rhabdoviruses, arboviruses.
Task	After examination the patient was diagnosed with tick-borne encephalitis. What route of transmission is characteristic of this disease?
Correct answer	Vector-borne transmission
B	Vertical transmission
C	Airborne droplet transmission
D	Fecal-oral transmission
E	Parenteral transmission
№	krok 2018-2019
Topic	Microbiological basics of antimicrobial chemotherapy and antiseptics

Task	A chemotherapeutic agent has bactericidal effect against streptococci, staphylococci, bacilli, and clostridia. According to its action spectrum this drug belongs to the following group:
Correct answer	Broad spectrum antibacterial agents
B	Narrow spectrum antibacterial agents
C	Broad spectrum antifungal agents
D	Antiviral agents
E	Antituberculous agents
№	krok 2018-2019
Topic	Hepatitis viruses. Oncoviruses. HIV.
Task	It is known, that HIV infection leads to severe immunologic disturbances in the body that result in the development of AIDS (acquired immune deficiency syndrome). What cells of the human body are the most susceptible to HIV infection?
Correct answer	T helper cells
B	Hepatocytes
C	Suppressor T cells
D	Endotheliocytes
E	B- lymphocytes
№	krok 2018-2019
Topic	Clostridia of wound anaerobic infection. Tetanus. Botulism.
Task	Microbe survival within environment is facilitated by spore formation. What genus of microorganisms can be characterized as spore formers:
Correct answer	<i>Clostridium</i>
B	<i>Bacteroides</i>
C	<i>Staphylococcus</i>
D	<i>Peptococcus</i>
E	<i>Peptostreptococcus</i>

№	krok 2018-2019
Topic	Applied immunology: immunodiagnostics, immunoprophylaxis, immunotherapy
Task	To induce an artificially acquired active immunity, a three-month-old child was given orally a Sabin strain-based live cultural vaccine. This vaccine is used for prevention of:
Correct answer	Poliomyelitis
B	Tuberculosis
C	Measles
D	Rubella
E	Parotitis
№	krok 2018-2019
Topic	Applied immunology: immunodiagnostics, immunoprophylaxis, immunotherapy
Task	After examination the child was diagnosed with scarlet fever. What microorganism is a causative agent of this disease?
Correct answer	Streptococcus
B	Staphylococcus
C	Meningococcus
D	Klebsiella
E	Actinomycete
№	krok 2018-2019
Topic	Pathogenic fungi. Pathogenic protozoa.
Task	A ready-made drug was inoculated on Sabouraud's agar and incubated under 22oC for 5 days. This nutrient medium was used to determine the following:
Correct answer	Number of mold and yeast fungi
B	Total number of bacteria
C	Presence of <i>E. Coli</i>
D	Presence of <i>S. Aureus</i>
E	Presence of <i>Salmonella</i>

№	krok 2018-2019
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection
Task	Seitz filters are widely used in laboratory practice. What is their purpose?
Correct answer	Sterilization by means of filtration
B	Disinfection of solutions
C	Measurement of water contamination
D	Growing of bacteriophages
E	Virus destruction
№	krok 2018-2019
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection
Task	Thermolabile medicinal preparation for extemporal use was heated to 65°C thrice with intervals of one day between the heatings. What method of sterilization was used in this case?
Correct answer	Tyndallization
B	Pasteurization
C	Koch's steam sterilization
D	Calcination
E	Filtration
№	krok 2018-2019
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection
Task	Many serological reactions require strictly aseptic conditions. What method of sterilization is optimal for decontamination of laboratory glassware?
Correct answer	Dry heat
B	Tyndallization
C	Pasteurization
D	Filtration
E	Calcination

№	krok 2018-2019
Topic	Mycobacteria. Actinomycetes.
Task	During microscopy of a smear made from the sputum sample and stained according to the Ziehl-Neelsen technique, the medical laboratory scientist detected bright red acid-fast bacilli arranged separately and in groups. What microorganisms were detected?
Correct answer	<i>Micobacterium tuberculosis</i>
B	<i>Bacillus anthracis</i>
C	<i>Salmonella typhi</i>
D	<i>Staphylococcus aureus</i>
E	<i>Bordetella pertussis</i>
№	krok 2018-2019
Topic	Sanitary and microbiological methods of research of medicinal plant material and prepared dosage forms.
Task	Sanitary-microbiological assessment of water quality in the water supply system conducted by the sanitary-epidemiological station detected microorganisms indicative of fecal contamination of water. What microorganisms were detected?
Correct answer	<i>Escherichia coli</i>
B	<i>Streptococcus agalactiae</i>
C	<i>Haemophilus influenzae</i>
D	<i>Neisseria sicca</i>
E	<i>Staphylococcus aureus</i>
№	krok 2018-2019
Topic	Sanitary and microbiological methods of research of medicinal plant material and prepared dosage forms
Task	Air contamination with pathological microorganisms can be anticipated by the presence of indicator bacteria. Specify the bacteria that indicate immediate epidemiologic danger:
Correct answer	Hemolytic streptococci

B	Sarcinae
C	Mold fungi
D	Yeast fungi
E	Micrococci
№	krok 2018-2019
Topic	Immunity. Types of immunity. Immune system. Antigens. Antibodies. Non-specific factors of defense. Complement system. Phagocytosis.
Task	It can be safely assumed that the infants born from the mothers with the history of measles will not be affected by the measles outbreak during their stay in the maternity ward. What classes of antibodies provide the infants with the resistance to this disease?
Correct answer	IgG
B	IgA
C	IgD
D	IgM
E	IgE
№	krok 2021
Topic	Staphylococci and streptococci. Meningococci and gonococci
Task	Cerebrospinal fluid of a patient diagnosed with meningitis was taken for analysis. To detect the causative agent, the sample was inoculated in a nutrient medium. Prior to that, a serum had been added to the medium. What causative agent is expected to be obtained in this case?
Correct answer	Meningococcus
B	Mycobacteria
C	Staphylococcus
D	Viruses
E	Rickettsia
№	krok 2021

Topic	Pathogenic Salmonellae: pathogens of typhoid fever and paratyphoid, gastroenterocolitis
Task	One day after eating meatballs in the school canteen, several students came to the nurse's office complaining of stomachache, vomiting, high body temperature, and diarrhea. One of the students was hospitalized in a severe condition. What microorganisms can be the cause of this food toxicoinfection?
Correct answer	Salmonellae
B	Meningococci
C	Streptococci
D	Shigellae
E	Clostridia
№	krok 2021
Topic	Staphylococci and streptococci. Meningococci and gonococci
Task	Staphylococcus was isolated from the vomitus of a child with signs of food poisoning caused by pastry. What pathogenicity factor of staphylococci causes toxic infection syndrome?
Correct answer	Enterotoxin
B	Protein A
C	Hyaluronidase
D	Hemolysin
E	Exfoliative toxin
№	krok 2021
Topic	Hepatitis viruses. Oncoviruses. HIV.
Task	A case of hepatitis A was registered at a school. What drug should be used for specific prevention in the children, who were in a contact with the sick classmate?
Correct answer	Immunoglobulin
B	Inactivated vaccine
C	Live vaccine

D	Ribavirin
E	Interferon
№	krok 2021
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection
Task	In March, the children in a kindergarten were given a salad made from fresh cabbage stored in a cold cellar. Several hours later, many of these children developed signs of food poisoning. What microorganisms are the likely cause of poisoning in this case, considering the conditions in which they were reproducing?
Correct answer	Psychrophiles
B	Thermophiles
C	Resident
D	Mesophiles
E	Facultative
№	krok 2021
Topic	Microbiological basics of antimicrobial chemotherapy and antiseptics
Task	One week after an inpatient treatment with penicillin, a microorganism that was initially susceptible to this antibiotic developed a resistance to penicillin, tetracyclines, aminoglycosides, and macrolides. What mechanism of antibiotic resistance formation is observed in this case?
Correct answer	Mutational
B	R-plasmid
C	Phenotypic
D	Spontaneous
E	Natural selection
№	krok 2021
Topic	Causative agents of cholera. Causative agents of zoonotic infections

Task	Microscopy of a microslide prepared from the enlarged inguinal node of a patient and stained according to Loeffler technique (methylene blue) detected there chaotically arranged ovoid bacteria. The poles of the bacteria are stained more intensively. Such presentation is characteristic of the following microorganism:
Correct answer	<i>Y. pestis</i>
B	<i>T. pallidum</i>
C	<i>M. tuberculosis</i>
D	<i>N. gonorrhoeae</i>
E	<i>L. interrogans</i>
№	krok 2021
Topic	Causative agents of cholera. Causative agents of zoonotic infections
Task	A woman with peptic ulcer disease of the stomach was prescribed antibacterial treatment. It is aimed at the following pathogen:
Correct answer	<i>H. pylori</i>
B	<i>St. aureus</i>
C	<i>Cl. perfringens</i>
D	<i>Cl. trachomatis</i>
E	<i>E. coli</i>
№	krok 2021
Topic	Humoral and cell-mediated immune response. Biology of immune response. Regulation of immune reactions. Theory of immunogenesis
Task	Immune sera are used for seroprophylaxis and serotherapy of infectious diseases. What immunity is formed in such cases?
Correct answer	Artificial passive
B	Natural passive
C	Artificial active
D	Natural active

E	Innate hereditary
№	krok 2021
Topic	Corynebacteria
Task	When examining a material taken from a patient diagnosed with diphtheria, a pure culture of microorganisms was obtained. The culture was identified as a toxigenic strain of <i>Corynebacterium diphtheriae</i> . What serological reaction is used in bacteriological laboratories to determine the toxigenicity of <i>Corynebacterium diphtheriae</i> ?
Correct answer	Precipitation in gel
B	Neutralization
C	Agglutination
D	Indirect hemagglutination
E	Complement fixation
№	krok 2021
Topic	Physiology of bacteria. Culture media. Methods of sterilization. Disinfection
Task	A pharmacy has decided to use a biological method for quality control of instrument sterilization in an autoclave. What microorganisms optimally should be used for this purpose?
Correct answer	<i>Bacillus subtilis</i>
B	<i>Salmonella typhi</i>
C	<i>Yersinia pestis</i>
D	<i>Borrelia recurrentis</i>
E	<i>Streptococcus pyogenes</i>
№	krok 2021
Topic	RNA-genomic viruses: orthomyxoviruses, paramyxoviruses, picornaviruses, rhabdoviruses, arboviruses
Task	For annual influenza prevention, the WHO recommends to use the vaccines of the Influvac type that contain components of virion envelope. What type of vaccines is it?

Correct answer	Subunit
B	Recombinant
C	Live
D	Anti-idiotypic
E	Anatoxin
№	krok 2021
Topic	Causative agents of cholera. Causative agents of zoonotic infections
Task	Microscopy of a smear that was prepared from the material obtained from the patient detected there large bacilli with blunt ends that were arranged in a chain. After the causative agent was inoculated into a nutrient medium with addition of penicillin, the bacilli became spherical and started resembling a pearl necklace. This phenomenon is characteristic of the following causative agent:
Correct answer	Anthrax
B	Tularemia
C	Cholera
D	Candidiasis
E	Plague
№	krok 2021
Topic	Sanitary and microbiological methods of research of medicinal plant material and prepared dosage forms
Task	During a sanitary-microbiological analysis of the soil, the number of sanitary indicative microorganisms must be determined. Name these microorganisms:
Correct answer	<i>Streptococcus faecalis</i> , <i>E.coli</i> , <i>Clostridium perfringens</i>
B	<i>Staphylococcus aureus</i> , <i>Clostridium perfringens</i>
C	<i>Streptococcus haemolyticus</i> , <i>Streptococcus faecalis</i>
D	<i>Candida fungi</i> , <i>Streptococcus faecalis</i>
E	<i>Streptococcus faecalis</i> , <i>Clostridium perfringens</i>

№	krok 2021
Topic	Causative agents of cholera. Causative agents of zoonotic infections
Task	A man with clinical diagnosis of tularemia received a subcutaneous tularin injection to confirm this diagnosis. What method of analysis did the doctor use in this case?
Correct answer	Allergy testing
B	Microscopy
C	Microbiological
D	Biological