TO THE STUDENT

This notebook is designed to help you in your study of microbiology. The notebook contains tests from all chapters of General and Specific Microbiology. Every test has one correct answer, which is marked by asterisk (*). We hope this notebook helps to make the study of microbiology easier and more interesting for you. And tests including in this notebook help better prepare to get licensing exam "Krok-1".

GOOD LUCK TO YOU!

CONTENS

GENERAL MICROBIOLOGY

Morphology of microorganisms

Test	Explanation
1304 There are procaryotes and eucaryotes in microbial world. It depend from the cellular structure of microorganisms. Indicate which of the following organisms are procaryotes? A. * Bacteria B. Viruses C. Protozoa D. Fungi E. Prions	
2348 The following organisms are procaryotes, except for: A.*Protozoa B. Spirochetes C. Mycoplasma D. Rickettsia E. Chlamydia	
3659 Etiological factors of infectious diseases can be bacteria with different structure. Which of the following groups of microbes are eucaryotes: A. *Protozoa B. Viruses C. Viroids D. Prions E. Bacteria	
2349 Chlamydia belong to: A. *Bacteria B. Fungi C. Protozoa D. Rickettsia E. Virus	
4201 Ophthalmologic examination taken for microscopic examination of conjunctival swab of a patient. In the cytoplasm of epithelial cells after staining smear by Romanovsky-Giemsa method were revealed violet coccoid microorganisms. Indicate the most likely causative agent, which is characterized by the intracellular location?	

A. * Chlamydia B. Staphylococci C. Mycoplasma D. Streptococci E. Tetracocci	
795 Cell culture, which was used for the production of herpes vaccine, was contaminated with foreign microorganisms. It is able to pass through bacterial filters, staining with methylene blue has the form of very small cells of irregular shape, growing in media of complex composition with the addition of cholesterol. To which group of procaryotes is this microorganism? A. * Mycoplasma B. Rickettsia C. Chlamydia D. Micrococci E. Hemophilic bacteria	
2562 Choose among these are the features of the morphological structure, in which mycoplasmas differ from the typical bacterial cells. A. * Do not have a cell wall B. Cell wall contains peptidoglycan C. Cell wall contains no peptidoglycan D. Have flagella E. Do not form spores	
218 In the study of medicine plant collection in a nutrient medium grown culture in the form of black furry flying. In smears found coenocytic hyphae of mycelium with nodular thickenings on the ends. What are these microorganisms: A. *Mucor B. Penicillium C. Candida D. Aspergillus E. Actinomycetes	
3041 When smear microscopy with the mucous membranes of the tonsils patient revealed large oval cells that reproduce by budding and form pseudomycelium. What it may be microorganisms? A. * Candida B. Staphylococci C. Streptococci D. Salmonella E. Spirochaete	

3871 In medicine is widely used antibiotics, which are producers of fungi of the genera Penicillium and Aspergillus, belong to the class: A. * Ascomycota B. Basidiomycota C. Zygomycota D. Fungi imperfecti E. Chytridiomycota	
799 Isolated from soil microorganisms capable of producing antibiotics. Under the microscope, it looks like Gram-positive long branching filaments, which easily fall into coccoid and rod forms, stationary, has a capsule that forms spores. To which group of procaryotes is this microorganism? A. * Actinomycetes B. Clostridium C. Mycoplasmas D. Streptobacilla E. Corynebacterium	
3790 Child 13 years complained of poor appetite, pain in the right hypochondria. A microscopic examination of duodenal contents revealed large, similar to pear cells with two nuclei. Which microorganism identified? A. * Giardia B. Trichomonada C. Amoeba D. Trypanosome E. Toxoplasma	
1899 Bacteriological study of medicinal raw materials, which has become uncharacteristically odor, identified bacteria P. aeruginosa. What are the taxonomic categories used to name this type of microorganism? A. * Genus and species B. Family and species C. Family and the genus D. Division and species E. Division and the genus	
2864 After treatment of the patient with small doses of penicillin it was a formed bacterium that is resistant to the action of this drug. How are those forms? A. * L - form B. Protoplasts	

C. R forms D. S forms E. O forms	
3089 In long-term treatment of infectious patients with penicillin established phenomenon transforming agent in the L-form. What changes occur in the cell in the pathogen L-transformation? A. * Lack of cell wall B. Lack flagella C. Lack of capsule D. Lack of spore E. Lack inclusions	
2257 Which of the components of the bacterial cell is obligatory? A. *Nucleoid B. Pili C. Flagella D. Spore E. Capsule	
2258 Which of the components of the bacterial cell is non obligatory? A. *Flagella B. Nucleoid C Ribosomes D. Cell wall E. Cytoplasmic membrane	
2741 From a patient with a diagnosis of "cholera" was isolated pure culture of moving vibrios. To which group of flagellated bacteria is this pathogen? A. *Monotrihous B. Lofotrihous C. Amfitrihious D. Peritrihious	
4112 Bacteria - are single-celled organisms that are capable of autonomous existence. What structures of bacteria play a major role in the process of protein synthesis? A. *Ribosomes B. Cytoplasmic membrane C. Mesosome D. Cytoplasm E. Inclusions in the cytoplasm	

232 For the treatment of dysbacteriosis we can use "Colibacterin". This medicine contains E. coli, that it capable of producing bacteriocins. What caused this property? A. *Plasmids B. Flagella C. Capsule D. Ribosomes E. Spores	
659 Some bacteria become resistant to drugs during the treatment with antibacterial agents. What is structural component of bacteria is the reason? A. * R-plasmid B. Spore C. Capsule D. Flagella E. Volutin granule	
2250 There are purulent infections caused by MRSA strains with multiple resistance to antibiotics in the surgical department. What is a plasmid led to? A. *R B. F C. Col D. Tox E. Hly	
545 Survival of bacteria in environmental objects contributes to sporulation. What bacteria of the following are the spore-forming? A. *Clostridium B. Bacteroides C. Veillonella D. Peptococcus E. Peptostreptococcus	
843 Different structural components of bacterial cells perform different functions. Which component is optional for the cell, ensures its survival in adverse environmental conditions? A. *Spore B. Capsule C. Pili D. Flagella E. Inclusions	

1900 During microscopic examination of medicinal raw materials with changing its color, was found in large quantities gram-positive spore-forming rods. How bacteria inherent in sporulation? A. * Bacillus B. Micrococcus C. Staphylococcus D. Vibrio E. Spirochaeta	
2958 There are, stay where people or animals associated with the constant risk of exposure to certain types of bacteria. Which feature of these bacteria determines their prolonged stay in the soil? A. *Sporulation B. Capsulation C. The ability to multiply in plant residues D. The presence of thick cell wall E. Availability of plasmids	
1393 Structure of the bacterial cell, which has increased resistance to the action of factors external environment and is able to persist for a long time, can be detected by staining with the Ozheshko method. How is it called? A. * Spore B. Capsule C. Flagella D. Plasmid E. Pili	
226 Under adverse environmental conditions some bacteria form special elements. For their detection use staining with the Ozheshko method. What are these elements of the cell? A. *Spores B. Flagella C. Volutin granules D. Capsules E. Cilia	
844 Protection of microbes from phagocytosis and antibody provides a specific structural component of the cell. What is it? A. *Capsule B. Spore C. Pili D. Flagella	

E. Inclusion	
3861 When microbiological control of medicinal raw materials identified capsular bacteria. What method used to identify a capsule? A. * Burri-Gins B. Ziehl-Nielsen C. Neysser D. Gram E. Ozheshko	
4378 Mucous structure is firmly associated with the cell wall of bacteria and has clearly defined external boundaries, can be detected by staining with Burri-Gins method. How is this element of the bacterial cell? A. *Capsule B. Spore C. Flagella D. Ribosome E. Episome	
1901 Bacteriological surveys of workers at pharmacies bacteriocarrier from one of the pharmacists were isolated from nasopharyngeal bacterial genus Staphylococcus. What morphological properties inherent in this race? A. * Location of cells in grapelike clumps B. Cells in the location of a chain C. Arrangement of cells singly D. Location of cells in pairs E. Arrangement of cells tetrads	
4017 In the bacteriological laboratory microscopy purulent furuncle in Gram-stained smears revealed spherical microorganisms, those are placed in grapelike clumps. What are microorganisms? A. *Staphylococci B. Streptococci C. Micrococci D. Gonococci E. Meningococci	
847 In smears prepared from pus of a patient with inflammatory processes shank revealed Gram-positive spherical forms of bacteria, placed in grapelike clumps. What bacteria can be considered to cause the disease? A. *Staphylococci B. Streptococci C. Diplococci D. Micrococci	

E. Sarcina	
3216 In stained smears prepared from the pus, revealed Gram-positive cocci, arranged in the form of irregular clusters: “grapes”. What is the arrangement associated staphylococci? A. *With division of bacteria in different planes B. With the technique of smear preparation C. With the technique of painting D. With the effect of dyes on bacteria E. With localization of purulent process	
848 In smears prepared from pus of a patient with inflammatory processes hand identified Gram-positive spherical bacteria, which are placed in the form of chains. What bacteria can be considered to cause disease? A. *Streptococci B. Saphylococci C. Diplococci D. Micrococci E. Sarcina	
3467 In smears prepared from pus of a patient with purulent inflammation of bones, identified Gram-positive spherical bacteria, which are located in the form of chains. What bacteria can be considered to cause the disease? A. *Streptococci B. Gonococci C. Meningococci D. Micrococci E. Sarcina	
3125 In the study micropreparations made from sputum of patients with pneumonia, identified Gram-positive capsule lancet diplococci. What is a microorganism? A. * Pneumococcus B. Meningococcus C. Gonococcus D. Staphylococcus E. Enterococcus	
4215 From the patient with pneumonia during bacterioscopic study was revealed Gram-positive diplococci, which are placed in a flame of a candle and surrounded by a capsule. Indicate the most likely causative agent? A. * Pneumococcus B. Klebsiella C. Staphylococcus D. Gonococcus	

E. Meningococcus	
169 From the patient with high fever, chills, cough, sputum was isolated Gram- positive lancet diplococci with the capsule. Name the alleged agent. A. *Pneumococcus B. Staphylococcus C. Enterococcus D. Meningococcus E. Gonococcus	
662 When microscopy smear student forgot to put on a slide a drop of immersion oil and did not get the picture. What is needed immersion fluid? A. * To maximize the collection of light rays B. To reduce the resolution of the microscope C. To prevent damage to the ocular D. To prevent damage to smear E. To prevent damage to the lens	
2743 In conducting rapid diagnosis of cholera used direct immunoflyuorescence method. What type of microscope used for these purposes? A. *Fluorescent B. Light C. Dark field D. Phase-contrast E. Electron	
3657 For morphological study of microorganisms use various types of microscopy. Specify the principle on which is based electron microscopy: A. *Use of the electron B. Light rays passing through a series of magnifying lenses C. Diffraction of light in a side illumination D. Transformation of the phase differences in the amplitude E. Lighting by effects of UV rays	
2740 In laboratory diagnosis of syphilis became necessary to examine the nature and extent mobility of the parasite. What type of microscope used for this purpose in the bacteriological laboratory? A. *Dark-field B. Light C. Fluorescent D. Electron	

E. Phase-contrast	
345 Necessary to make the drug from the culture of microorganisms for the study of their mobility. Which important stage of making the drug should pay attention to? A. *The smear is not fixed B. Dry the smear C. Fix the smear D. Stain the smear E. Wash the smear	
2038 In smears of faeces patient identified Gram-negative bacteria in the comma shape. What properties are necessary to first explore with a microscope for further about the identified microbes? A. * Mobility B. The presence of spores C. The presence of capsules D. The presence of cysts E. The presence of volutin granules	
3658 To study the morphological characteristics of microorganisms used different staining techniques. Specify the purposes for which use simple methods: A. *Study of shape and size of microorganisms B. Identify spores C. Identify capsules D. Identification of Gram-positive and Gram-negative bacteria E. Identify flagella	
550 When bacterioscopical method for laboratory diagnosis of infections use various staining agents. For what purposes using the method of Gram? A. *Differentiation of bacteria B. Stain spores C. Identify capsules D. Detection of flagella E. Identify plasmids	
3575 Gram staining is the main method of staining in microbiology. Why is the differentiation of Gram-positive bacteria and Gram-negative by this method? A. *The structure of cell wall B. The size of cells C. The presence of ribosomes D. Structure of the cytoplasmic membrane	

E. Chemical composition of the capsule	
3120 At microscopy of material from the festering wounds in the smears were found both purple cocci and pink rods. What method of staining product used? A. * Gram B. Ziehl-Nielsen C. Burri -Gins D. Neysser E. Ozheshko	
663 Bacteria differentiate to Gram-negative and Gram-positive. Indicate which of the following apply to Gram-negative: A. * Meningococcus, Gonococcus B. Staphylococcus, Streptococcus C. Clostridium D. Corynebacterium E. Mycobacteria	
4019 At microscopy of sputum smears from the patient revealed blue-violet lancet diplococci. What method were stained smears? A. *Gram B. Ozheshko C. Burri -Gins D. Morozov E. Neysser	
797 Of the medicinal plants, died here clogging blood vessels, was isolated pathogenic microorganisms. There are mobile non-sporing Gram-positive bacillus, presumably Corynebacterium.To test this hypothesis, it is necessary to identify volutin granules in these bacteria. Which stain should be used for this? A. * Neysser B. Ozheshko C. Burri -Gins D. Romanovsky-Giemsa E. Ziehl-Nielsen	
845 Laboratory diagnosis of tuberculosis involves the use of microscopic method. What method of staining used to identify the causative agent of tuberculosis? A. *Ziehl-Nielsen B. Gram C. Burri -Gins D. Romanovsky-Giemsa	

E. Neysser	
1602 In the laboratory was deliver to investigate the sputum of the patient, in which the physician suspected pulmonary tuberculosis. To detect the pathogen bacteriologist used a special method of staining. Give it: A. * Ziehl-Nielsen B. Ozheshko C. Burri -Gins D. Zdrodovsky E. Gram	
3219 Of the patients with chronic pneumonia sputum bacteriologists prepare smear for microscopy and stain it by Ziehl-Neelsen. For which microorganisms can use this stain? A. *Acid -fast B. Mobile C. Capsule-forming D. Spore-forming E. Non-mobile	

Physiology of microorganisms

1380 The bacteria differentiate into several groups depending on the type of nutrition. Name type of nutrition of bacteria using carbon dioxide air as a carbon source. A. * Autotrophs B. Heterotrophs C. Organotrophs D. Auxotrophs E. Prototrophs	
803 The enterprise, where producing the vaccine, diphtheria bacillus is cultivated to produce toxin. For the growth of a microorganism serum media is used, because the microorganism is not able to independently synthesize some amino acids and vitamins necessary for its growth. To which group of microorganisms (like metabolism) it belongs? A. * Auxotrophs B. Prototrophs C. Lithotrophs D. Phototrophs E. Autotrophs	
1307 For nutrition the bacteria needed molecules, which in nature structure can not pass through the cytoplasmic	

membrane. Name the mechanism of nutrition, in which the molecules are fragmented substances: A. * Translocation radicals B. Phagocytosis C. Passive diffusion D. Active transport E. Facilitated diffusion	
4381 There are different uptake mechanisms of nutrients by the bacterial cell. One of them is facilitated diffusion, which is implemented by special membrane proteins vectors. How are they called? A. * Permeases B. Lyases C. Oxidoreductases D. Isomerases E. Ligases	
543 The basic method of laboratory diagnosis of bacterial infections is bacteriological. In what phase of growth of microbial populations is their adaptation to the nutrient medium? A. * Lag-phase B. Stationary growth phase C. Logarithmic growth phase D. Death phase E. All of the above	
2350 To isolate pure culture of bacteria from complex microbial mixtures is better to use for the primary cultivate medium: A. * Elective B. Simple C. Special D. Differential-diagnostic	
1902 To investigate a drug was isolated pure culture of Gram-negative bacteria. What media type should be used to study the biochemical properties of bacteria and differentiate them of enzyme activity? A. * Differential diagnostic B. Elective C. Meet-pepton agar D. Meet-pepton broth E. Semisolid Meet-pepton agar	
3121 After cultivating excreta of the patient, which is ill with typhoid fever, on Endo medium got the growth of the	

colonies. Choose nutrient medium needed to study the biochemical properties of selected culture: A.* Media Hiss B. Meet-pepton agar C. Kitta-Tarotsi medium D. Alkaline peptone water E. Ploskirev medium	
2055 Cultivating patient excreta of typhoid fever on Endo medium grew colonies of different colors and sizes: some - big red, others - colorless medium size. How is this group media called? A. * Differential diagnostic B. Elective C. Enrichment D. Universal E. Special	
3122 Cultivating patient excreta of typhoid fever on Endo medium grew different colonies: one - the large red, others - colorless medium. How is this group media called? A. * Differential diagnostic B. Special C. Elective D. Enrichment E. Universal	
4027 An examination of a patient with intestinal infection on Endo medium grew colonies of different colors: red and colorless. To which group of media for this purpose is media? A. * Differential diagnostic B. Universal C. Special D. Elective	
2252 Bacteriological study of solutions, manufactured in the pharmacy on Endo medium grew red colonies with a metallic luster. What it may be microorganisms? A. * Escherichia B. Shigella C. Staphylococci D. Streptococci E. Salmonella	
3857 Of the medicinal plants selected phytopathogenic microorganisms, forming colonies on a nutrient medium in	

the form of "fried eggs". Indicate the most likely causative agent? A. * Mycoplasma B. Yeast C. Actinomycetes D. Nokardia E. Pseudomonada	
802 At the biomedicines plant it produces group B vitamins, which are the producer of yeast fungi. The air of industrial premises is necessary to investigate the content producer. What is the nutritional media should be used for this? A. * Saburo B. Endo C. Hiss D.Lowenstein - Jensen E. Endo	
2054 At the air control in the pharmacy premises where manufactured injectable drugs, sedimentation method were revealed small rounded colonies, around which are clearly visible zone of hemolysis. What media was use for cultivating? A. * Blood agar B. Endo medium C. MPA D. Yolk-salt agar E. Levin media	
3133 At control of the air purity in the aseptic box pharmacies, sedimentation method was growing small colonies with zones of hemolysis. What media was use for cultivating? A. * Blood agar B. Levin medium C. Endo medium D. Ploskirev medium E. Yolk-salt agar	
2967 Staphylococci grow well on simple media, however, the isolation of pure cultures from patients with seeding done on blood and yolk-salt agar. What purpose to use these media? A. * To determine the factors of pathogenicity B. To determine the staining properties C. To study the antigenic properties D. To determine the mobility of bacteria E. To determine the sensitivity to antibiotics	

541 To identify the pathogen determine its enzymatic activity. In what medium are studying its proteolytic properties? A. * Meat-peptone gelatin B. Endo medium C. Media Hiss D. Levin medium E. Ploskireva medium	
348 From the patient bacteriologist identified pure cultures of microorganisms. For its identification to determine the production of proteolytic enzymes. What media can be use for this purpose? A. * Meat-peptone broth B. Media Hiss C. Kitta-Tarots medium D. Endo medium E. Blood tellurit agar	
1308 For detection of saccharolytic enzymes investigated culture of bacteria inoculated in nutrient medium: A. * Media Hiss B. Kitta-Tarots medium C. Blood agar D. Alkaline agar E. Saburo medium	
3298 The bacterial cell can not exist without the normal functioning of the enzyme systems. Select among the above adaptive (inducible) enzymes of the bacterial cell. A. * Penicillinase B. Lipase C. Proteases D. Isomerase E. Ligase	
3299 Pathogens aggression inherent in the presence of enzymes that determine their virulence. Choose among these enzymes aggression. A. * Hyaluronidase B. Carbohydrases C. Transferase D. Oxidase E. Lyase	
4374 To determine the parasite species belonging to examine the	

presence of an enzyme aggression. Which of the following enzymes is enzyme aggression? A. * Hyaluronidase B. Catalase C. Hydrolase D. Peroxidase E. Isomerase	
1309 Pathogenic microorganisms produce enzymes virulence, which include: A. * Hyaluronidase B. Galactase C. Catalase D. Lactase E. Amylase	
2564 It is known that anaerobic microorganisms are killed in the presence of oxygen because of the destructive action of hydrogen peroxide. This is due to the lack of production of the enzyme anaerobes: A. * Catalase B. Reductase C. Polymerase D. Proteases E. Lactase	
1904 In the study of microbial air Pharmacies isolated pure culture of microorganisms, which grows and develops in the presence of an atmosphere of not less than 20% oxygen. To which group of microorganisms on the respiration type belongs the isolating culture? A. * Obligate aerobes B. Obligate anaerobes C. Facultative anaerobes D. Microaerophilic E. Capnophilic	
346 The patient suspected anaerobic infection (tetanus). In what medium should be inoculate material under study? A. * Kitta - Tarots B. Endo C. Casein-carbon agar D. Ploskirev E. Lowenstein-Jensen	
2955 The patient was isolated culture of bacteria, which do not grow in the presence of oxygen. How to provide	

conditions for the growth of this culture? A. * Use of anaerobic culture apparatus B. By use of serum medium C. By use of the furnace Pasteur D. Using the apparatus Krotov E. By use of an autoclave	
4203 In the bacteriological laboratory isolated microorganisms capable of producing pigment pyocyanin. Which microbe is inherent in this property? A. * Pseudomonas aeruginosa B. Escherichia coli C. Bacillus subtilis D. Candida albicans E. Staphylococcus aureus	
81 To isolate bacteria of the genus Proteus from the test material using the method Shukevich. What is it? A. * Inoculating in the condensing water of MPA B. Inoculating in enrichment medium C. Cultivation in anaerobic conditions D. Inoculating in medium with antibiotic E. Infection of laboratory animals	
798 In the laboratory of the pharmaceutical companies tested medicinal raw material (Freshly plants) at insemination opportunistic microorganisms. To isolate bacterial cultures prepared test tubes with slant agar, and the MPA poured hot to form a condensate. Which microorganism is expected to isolate? A. * Proteus B. Escherichia coli C. Streptococcus D. Klebsiella E. Staphylococcus	
2966 After intravenous injection of glucose in a patient showing signs of endotoxic shock. The analysis of the solution showed the presence of endotoxin of Gram-negative bacteria. What is the chemical nature of endotoxin? A. * Lipopolysaccharide B. Peptidoglycan C. Polymer lipids D. Cell wall proteins E. Lipids	
3649 Diphtheria bacilli produce a strong exotoxin. Which of the	

following properties are characteristic of bacterial exotoxin? A. * Stimulates the formation of antitoxin B. Under the action of formalin is not neutralized C. Extracted from the microbial cells after her death D. Have glyco-lipid-protein nature E. Stimulates the formation of antibacterial antibodies	
769 Anthrax is a particularly dangerous infection. What virulence factors are inherent in this pathogen? A. * Capsules and exotoxin B. Fibrinolizin and endotoxin C. Bacteriocins and spores D. Plasmocoagulase and flagella E. Haemolisin and volutin granules	
790 In a Petri dish with the MPA, which was a colony of mold Penicillium, sprayed a suspension of Staphylococcus aureus. One day the growth of staphylococcus was observed on the entire surface of the nutrient medium except 3-sm zone around the colony of Penicillium. What type of relations of microorganisms revealed in this case? A. * Antagonism B. Parasitism C. Competition D. Commensalism E. Metabiozis	
1399 There are various forms of coexistence (symbiosis) between microorganisms. What do you call a win-win form of symbiosis, where both the microorganism is extracted from cohabitation favor? A. * Mutualism B. Metabioz C. Satellism D. Commensalism E. Parasitism	
791 An industrial strain of actinomycetes, which is used for the production of the antibiotic, belongs to psychrophilic microorganisms. At what temperature it should be cultivated to ensure optimal conditions for growth? A. * 15-20 ^{0}C B. 5 - 10 ^{0}C C. 30 - 35 ^{0}C D. 36 - 38 ^{0}C E. 45 - 50 ^{0}C	

3087 In the laboratory the material taken from a patient with suspected dysentery for isolating pure cultures of microorganisms and identification of its susceptibility to antibiotics. Which method should I use? A. * Bacteriologic B. Bacterioscopic C. Serological D. Allergic E. Biology.	

Morphology and biology of viruses

542 Of the virus as infectious agents is mandatory intracellular parasitism. Which object is not used for the cultivation of viruses? A. * Culture media B. Primary cell cultures C. Susceptible laboratory animals D. Chicken embryos E. Continuous cell culture	
2351 No viruses were cultured in: A. * Nutrient media B. Primary cell cultures C. Transplanted cell cultures D. Laboratory animals E. Chicken embryos	
2762 In the virology laboratory received wipes from the nasopharynx of the patient. Which of the substrates should be used to highlight the flu virus from swabs the patient? A. * Chicken embryos B. Meat-peptone agar C. Meat-peptone broth D. Endo medium E. Saburo medium	
2866 From patients was isolated etiologic infectious agent with these characteristics: submicroscopic size, type of nucleic acid - DNA, reproduces only in cell culture. What drugs should be applied for treatment in this case? A. * Antiviral B. Antibacterial C. Antifungal D. Broad-spectrum antibiotics	

E. Toxoids	
2971 To isolate influenza virus A1/57 (N2N2) from patients was used chicken embryos. What method of diagnosis is used? A. * Virologic B. Virusoscopic C. Immunofluorescence D. Immune electron microscopy E. Biology	
3215 Infection of chicken embryos is the main method of isolation of influenza virus. To suppress the accompanying bacterial flora in the test material (washings from the nasopharynx) to him previously added: A. * Antibiotics B. Eubiotics C. Fluorescent serum D. Leukocyte interferon E. Influenza gamma globulin	
3578 In 2003 a new disease, which is denoted as "atypical pneumonia" or SARS (severe acute respiratory syndrome). To which group of microbes carried her agent? A.* Viruses B. Bacteria C. Protozoa D. Prions E. Fungi	
4384 In viral diseases in the cytoplasm or nucleus of infected cells can be detected inclusions, revealed with the microscope with a special staining smear. Specify the method of stained for this purpose. A. * Romanovsky-Giemsa B. Neysser C. Gram D. Ziehl-Nielsen E. Zdrodovskogy	
224 After infection, cell culture virus containing material in the cells appeared intranuclear inclusion. What do you call such an action of the virus? A. * CPA B. RGA C. RIA D. RIF E. RN	

Study about Infection

1396 In the development of infectious disease distinguished several periods. It is called the period, which is characterized by the appearance of precursors (common symptoms) disease? A. * Prodromal B. Incubation C. Period of illness D. Convalescence E. Bacteriocarrier	
2343 In the dynamics of infectious process distinguish the following periods, except: A. * Invasive B. Incubation C. Prodromal D. Period of illness E. Period of decline	
374 In dairy farm worker diagnosed with brucellosis. How is called infection, in which the source of the pathogen are sick animals? A. * Zoonosis B. Sapronosis C. Antroponosis D. Secondary E. Mixed	
178 As a source of infectious agents can be as sick people and animals. What are the infections that occur in animals and from which the infected person? A. * Zooantroponosis B. Sapronosis C. Anthroponosis D. Zoonosis E. Mixed	
221 After examining the patient, the doctor diagnosed «Tick-borne encephalitis". Name the mechanism of transmission of this disease. A.* Transmissible B. Vertical C. Airborne D. Fecal-oral E. Parenteral	

4376 After examining the patient, the doctor diagnosed "Spotted typhus". Name the mechanism of transmission of this disease. A. * Transmissible B. Vertical C. Fecal-oral D. Airborne E. Parenteral	
4280 The patient, who visited on a business trip in one of the African countries, diagnosed with malaria. What is the transmission mechanism is characteristic of this disease? A. * Transmissible B. Fecal-oral C. Contact D. Respiratory E. Sexual	
415 One of the members of the expedition, who worked in the endemic focus of malaria, after 8 months diagnosed with malaria. What is the possible transmission mechanism? A. * Transmissible B. Airborne with dust C. Fecal-oral D. Contact E. Airborne with droplet nuclei	
2744 In the infectious diseases clinic patient admitted with a diagnosis of malaria. What is the transmission mechanism is typical for this disease? A. * Transmissible B. Fecal-oral C. Airborne D. Contact E. Indirect contact	
3646 In accordance with the primary localization of the causative agent in the body distinguish between the basic transmissions mechanisms of infection: airborne, contact, vector borne, fecal-oral. Specify the routes of transmissible mechanism: A. * Blood-sucking insects B. Drops of mucus from the respiratory tract C. Food D. Direct contact with sick E. Contact with the objects of the environment	

3653 In the village reported cases of dysentery. What is the possible mechanism of transmission from patients to health? A. * Fecal-oral B. Transmissible C. Aerogenic D. Vertical E. Artificial	
164 After examining the newborn, the doctor diagnosed "Congenital rubella". Name the mechanism of transmission of this disease. A. * Vertical B. Parenteral C. Transmissible D.Fecal-oral E. Airborne	
2954 From the patient with pneumonia was isolated culture of bacteria, whose cells are surrounded by mucous layer, closely related to the cell wall. What explains the high virulence of culture with morphological features? A.* Capsules antifagocytic action B. Toxin production of capsule bacteria C. Endotoxin of capsule bacteria D. Capsules adhesion E. Invasive properties of the capsules	
3299 Pathogens have aggression enzymes that determine their virulence. Choose among these enzymes aggression. A. * Hyaluronidase B. Carbohydrases C. Transferase D. Oxidase E. Lyase	
3644 The cellular structures of the vaccine and clinical strains of anthrax bacilli are differences. Indicate which the cell structure is caused the virulence of bacteria? A. * Capsule B. Flagella C. Spore D. Cell wall E. Cytoplasmic membrane	
3645	

Pathogenic microbes and their toxins may spread in host in various ways. Which path is characteristic toxemia? A. * Presence of microbial toxins in the blood B. Pathogens from the blood coming into the internal organs C. Microbes from the blood coming into the internal organs, which are formed pus formations D. The microbes from a place of introduction coming into the blood, but do not reproduce E. Presence of microbes in the lymph nodes	
1397 In the host bacteria presence in the blood and in the internal organs, where they formed purulent foci. How is this condition? A. * Pyosepticemia B. Bacteremia C. Septicemia D. Viremia E. Toxemia	
3654 Pathogenic bacteria, once inside the body, may spread in different ways. Which state is called pyosepticemia? A. * The microbes coming from the blood into the internal organs, which are formed pus formations B. The microbes coming from an entry site in the blood, but do not breed there C.The pathogen coming from the blood in the internal organs; D. Microbial toxins are in the blood E. Microbes are in the lymph nodes	
2827 Patient admitted to the infectious hospital with signs of generalized infection, has diagnose “pyosepticemia”. What is it? A. * Pathogens coming from the blood into the internal organs, which are formed pus formations B. The microbes coming from an entry site in the blood, but do not breed there C. Pathogens enter the blood and multiply there D. Exotoxins of pathogens are into the blood E. Endotoxins of pathogens are into the blood	
3652 One form of infection caused by sexually transmissions is a superinfection. What is meant by this term? A.* At the primary disease piling new infection by the same microbe B. For the main disease associated infection caused by other agent	

C. Return signs of disease D. Repeated exposure to the same microbe that caused the primary infection, after recovery E. In the body are simultaneously two or three pathogens	
4279 Patient with open fracture of the shoulder admitted to hospital. After 3 days the wound was be fester. Bacteriological study revealed Pseudomonas aeruginosa and Staphylococcus. How is called this form of infection? A. * Mixed infection B. Chronic infection C. Superinfection D. Reinfection E. Relapse	
3647 One form of the infectious process, leading to complications, such as influenza, is a secondary infection. What is meant by this term? A.* To the main disease associate infection caused by other agent B. At the primary disease piling new infection by the same microbe C. Return signs of disease D. Repeated exposure to the same microbe that caused the primary infection E. In the body are simultaneously two or three parasite	
220 At the 5- th day of illness the patient with influenza has new symptoms: appear fever, cough, with X-ray examination revealed pneumonia. Which type of infection is a complication? A. * Secondary B. Mixed C. Reinfection D. Superinfection E. Relapse	
2745 A patient with a diagnosis of gonorrhea re-enrolls in the infectious clinic. He has recently endured the infection and discharged with a diagnosis of "practically healthy". Which form of an infectious process is observed in him? A. * Reinfection B. Relapse C. Superinfection D. Mixed infection E. Monoinfection	
1390	

5 months after the treatment of syphilis a man had same diagnosis, which was associated with re-infection. Which form of infection occurs? A. * Reinfection B. Secondary C. Superinfection D. Relapse E. Latency	
175 In Asia and Europe since 2005, recorded a high incidence of avian influenza. How is this spread of the epidemic process? A. * Pandemic B. Epidemic C. Endemic D. Sporadic E. Epizootic	
3643 Infectious diseases are contagious and can have different forms of distribution. What do you call a form in which the disease within a short span of time, several countries and continents? A. * Pandemic B. Epidemic C. Endemic D. Sporadic E. Hospital	
1868 Sanitation and epidemic mode pharmacies during epidemics of acute respiratory viral infections includes activities aimed at the source of the pathogen; activities aimed at breaking the mechanism of transmission and interventions aimed at improving resistance to infection. Which of the following do not apply to activities aimed at the source of infection? A * Disinfection of indoor air B. Sanitation carriers of infectious agents C. Treatment of patients with infectious diseases D. Isolation of patients and carriers of infectious agents E. A periodic medical examinations	

Study about Immunity

551 For seroprevention and serotherapy of infections we can use immune serum and immunoglobulins. What type of immunity is formed with their help?	

A. * Artificial passive B. Artificial active C. Natural active D. Natural passive E. Innate	
173 For seroprevention and serotherapy of infections we can use immune serum. What type of immunity is formed with their help? A. * Artificial passive B. Natural active C. Artificial active D. Natural passive E. Innate	
1304 Necessary to carry preventive measures in the student group. It depends with the case of measles. Which drug should be used to form artificial passive immunity? A. * Normal human immunoglobulin B. The vaccine of lived bacteria C. The vaccine of killed bacteria D. APDT vaccine E. Serum anti measles	
1387 Patient with severe trauma had surgical treatment and injected the tetanus toxoid. What type of immunity is formed as a result of the injection of this drug? A. * Acquired passive B. Acquired active C. Natural active D. Natural passive E. Innate	
2794 An introduction immune drug generates artificial acquired immunity. Which of the following drugs are used to create artificial passive immunity? A.* Serum anti tetanus B. Brucellosis vaccine C. APDT D. BCG E. Cholera-toxoid	
2340 Immunization with vaccines forms: A. * Artificial active immunity B. Innate immunity C. Natural active immunity D. Transplant immunity	

E. Artificial passive immunity	
3297 For the prevention of infectious diseases is widely used vaccination of the population. What type of immunity provided by the injection of vaccines? A. *Artificial active immunity B. Natural active immunity C. Artificial passive immunity D. Natural passive immunity E. Innate immunity	
4266 Child is vaccinated against diphtheria. What type of immunity is formed as a result of vaccination? A. * Acquired active B. Acquired passive C. Natural active D. Natural passive	
2792 Depending on the origin of acquired immunity is divided into natural and artificial, but the mechanism of the acquisition - on the active and passive. Under what conditions is formed artificial active immunity? A. * The injection of vaccines B. The injection of immune serum C. The injection of immunoglobulins D. The transferring antibodies from mother to fetus E. The infecting with virulent strains	
2793 It is known that T-lymphocytes in immune function are not uniform. Indicate which of the following cells stimulate B-lymphocytes. A. * T-helper lymphocytes B. T-lymphocyte effectors C. T-lymphocytes suppressor D. T-lymphocytes-killers E. T-lymphocyte memory	
2975 It is known that repeated administration of antigen to the human body reacts to more intense and prolonged immune response. What kind of immune system cells are connected? A.* Memory cells B. T helper C. Stem cells D. Phagocytes E. T-suppressors	
2913	

From the pharmacist with long experience in the pharmacy appeared: swelling of the eyelids, nasal discharge. Investigation of blood serum showed a high level of Ig E. How can we characterize this syndrome? A. * Allergy B. Toxic effect of pharmacological agents C. Virus infection D. Chlamydiasis E. Inflammation of the mucous membranes	
3221 In the nursing home for children at 5 day of life had a primary vaccination with BCG. What type of immunity should be formed in the body following immunization? A. * Artificial nonsterile B. Artificial passive C. Artificial antitoxic D. Artificial sterile E. Natural passive	
785 To carry out preventive vaccination in children's clinic received a number of vaccines. Which of them creates nonsterile immunity? A. * BCG B. APDT C. DT D. Measles lived vaccine E. Influenza subunit vaccine	
4212 Child contact elder brother with measles. A pediatrician claims that do not need to do at that age immunized against measles, even after contact with patients. What is the reason? A. * The presence of maternal immunity B. High vaccine reactogenicity C. Low efficacy of vaccine D. Very small child's age	
1398 Man is immune to the plague of cattle and dogs. With what kind of immunity is the reason? A. * Innate immunity B. Natural activity C. Natural passive D. Artificial active E. Artificial passive	
4281 In the study of the smear of the pus from patient with gonorrhea doctor revealed gram-negative diplococci pair,	

who are both outside and inside leukocytes. How is this phenomenon? A. * Non-completed phagocytosis B. Completed phagocytosis C. Infection of phagocytes D. Pinocytosis E. Endocytosis	

Immune reactions

216 To determine activity of antitoxic serum using reaction, that is based on the combination of equal doses of immune serum and toxoid. How is this reaction? A. * Flocculation B. Hemagglutination C. Precipitation D. Complement fixation E. Hemadsorption	
547 For the laboratory diagnosis of infections using serological method, based on the specific reactions of antibodies with microbial antigens. What are the reactions that lead to adhesion and formation the sediment from complex AB-AG? A. * Agglutination B. Precipitation C. Neutralization D. Immobilization E. Hemolysis	
2867 From the patient with suspected typhoid fever isolated pure culture of bacteria with these characteristics: Gram-negative, mobile, lactose-negative and break down glucose to acid and gas, form hydrogen sulfide. What research should be to establish the species of these bacteria? A. * Agglutination test with the specific serum B. Identify additional biochemical properties C. Study toxin producing D. Identify flagella E. More to explore cultural properties	
215 For the serodiagnosis of syphilis using the Wasserman (CFT). What should be added to the first system to take into account the results of this reaction? A. * Hemolytic serum and sheep erythrocytes	

B. Complement C. The normal serum D. Sheep erythrocytes E. Hemolytic serum	
548 In the hospital patients with a preliminary diagnosis of "syphilis" was appointed serological examination - Test Wasserman. What type of reactions it belongs? A. *Complement fixation B. Immobilization C. Immunofluorescence D. Precipitation E. Agglutination	
2044 From clinically healthy schoolchildren throat was sown Corynebacterium diphtheria. Which method is used to determine its toxigenic properties? A. * The reaction of precipitation in gel B. Agglutination test C. Precipitation test D. Hemagglutination inhibition test E. Hemadsorption test	
211 The main factor for the pathogenicity of diphtheria bacilli is the production of exotoxin. With the help of some immunological reactions in microbiological laboratories determined that a sign? A. * Precipitation test B. Agglutination test C. Complement fixation test D. Flocculation test E. Bacteriolysis test	
2560 There is 10 years old child diagnosed with diphtheria throat in the infectious hospital. It was isolate toxigenic diphtheria bacillus. How to set up a dedicated toxigenicity of diphtheria bacilli? A.* With precipitation test in the gel B. With the agglutination reaction C. With the complement fixation test D. With the reaction of indirect hemagglutination E. With the flocculation test	
2916 Modern methods of express-diagnostics make it possible to demonstrate antigen gonococci in the material from the patient. Which method should be applied to show the minimum number of such antigen?	

A. * ELISA B. Precipitation test C. Immunofluorescence test D. Bacterioscopic method E. Isolation of pure culture	
2965 For what purpose use diagnostic kit, containing specific antibodies linked with peroxidase? A. * For antigen detection by enzyme immunoassay B. To identify the biochemical properties of bacteria C. For complement fixation test D. To determine the morphological features of infectious agents E. To determine the staining characteristics of infectious agents	
2973 In the laboratory of infectious diseases hospital did a test system, adsorbed on the wall of polystyrene wells with antibodies to immunoglobulins for diagnosis of hepatitis C. What material should be to select patients for research? A. * Serum B. Blood C. Feces D. Gastric washings E. Urine	
3217 To indicate the virus in the contaminated allantois fluid added to a suspension of chicken embryo erythrocytes. What reaction has been used? A. *Hemagglutination B. Microprecipitation C. Neutralization D. Hemagglutination inhibition E. Complement fixation	
3855 There is production of biological preparations of inactivated influenza vaccine on the plant. This influenza virus is cultivated in the chorion-allantois cavity of chicken embryos. Which method is most appropriate to use to indicate the virus in chorion-allantois fluid? A. * Hemagglutination test B. Electron microscopy C. ELISA D. Immunofluorescence test E. Polymerase chain test	
4387 In kindergarten carried routine vaccinations against	

diphtheria vaccine. What method can control the formation postvaccinal immunity? A * Serological B. Bacteriological C. Biological D. Bacterioscopical	
165 Detection in patient's serum antibodies to infectious agents can establish a diagnosis. What do you call this method of research? A. * Serological B. Biological C. Allergical D. Microscopical E. Microbiological	

Microorganisms of Environment

75 When planned bacteriological examination of air pharmacies were identified: B. cereus, M. luteus, yeasts, hemolytic streptococci. Which of these organisms is indicative of sanitation? A. * Haemolytic streptococci B. B. cereus C. M. luteus D. Yeasts E. All of the above	
2956 For control of premises' sanitation, where the finished dosage forms, was examine of air. Which of the identified bacteria indicates poor sanitary condition? A.* Hemolytic streptococci B. Mold fungi C. Sarcina D. Gram-positive bacilli E. Micrococci	
3300 The presence of pathogenic microorganisms in the air may be provided by the presence of sanitary representative bacteria. Choose among these bacteria, which are a direct indicator of the epidemiological risk. A. * Hemolytic streptococci B. Sarcina C. Mold fungi D. Yeasts E. Micrococci	

1599 In the study of crops air from the pharmacy, bacteriologist, discovered sanitary demonstration microorganism. What is a microorganism? A. * Staphylococcus aureus B. Bacillus subtilis C. Escherichia coli D. Non-hemolitic streptococcus E. Corynebacterium diphtheria	
1890 In the study of bacterial contamination of air, we can control the total number of microorganisms in a certain volume and qualitative composition of microflora. What microorganisms are sanitary indicative for indoor air? A. * Staphylococcus aureus B. Escherichia coli C. Bacillus subtilis D. Yeasts E. Molds	
4380 For sanitary and biological research chemist's air it was discovered by the sanitary-indicative microorganisms. Name this microorganism. A. *Staphylococcus aureus B. Escherichia coli C. Enterococcus faecalis D. Streptococcus viridans E. Citrobacter	
3786 Employees of bacteriological laboratory carried out verification of compliance with sanitary and epidemic profile in the pharmacy, in particular in its aseptic room. They had studied air environment. What microorganisms are sanitary representative for the air space aseptic pharmacy? A. * Staphylococcus aureus and hemolytic streptococci B. Staphylococcus aureus and epidermal staphylococci C. Staphylococcus aureus and staphylococcus saprophyticus D. Epidermal staphylococci and hemolytic streptococcus E. Staphylococcus saprophyticus and hemolytic streptococci	
3856 For sanitary and bacteriological study of air in the room pharmacies found an increased content of sanitary-indicative microorganisms. What are microorganisms? A. * Staphylococcus aureus and hemolytic streptococci	

B. Diphtheria and tubercle bacillus C. Escherichia coli and Pseudomonas aeruginosa D. Epidermal staphylococci and Sarcina E. Enterococci and Citrobacter	
3212 For air sampling in a pharmacy, a bacteriologist used Krotov apparatus. What is the method of study of air? A. *Aspiration B. Membrane filters C. Termoprecipitation D. Sedimentation E. Vacuum	
1912 Which microorganism selected as exemplary for sanitary drinking water? A. * Escherichia coli B. Pneumococcus C. Micrococcus D. The causative agent of syphilis E. Salmonella	
2338 To assess the level of microbial contamination of the environment determine the number of sanitary-indicative microorganisms. Give them for drinking water: A. *Escherichia coli B. Staphylococcus aureus C. Streptococcus viridans D. Clostridium perfringens E. Candida albicans	
2251 To assess the quality of water used in the pharmacy carried bacteriological research. Which indicator shows the number of bacteria of Escherichia coli in 1 liter of water? A. *Coli index B. Microbial numbers C. Perfringens-titer D. Titer of enterococci E. Titre of coli-phage	
76 Bacteriological study of water from the city water supply was obtained following results: if the index 23, the microbial number 160. Does these water regulatory indicators? A. * Not responsible for both indicators B. Responsible for both parameters C. Not responsible for coli- index, but is responsible for the microbial count D. Responsible for the coli-index, but is not responsible	

for the microbial count	
1302 The presence of E. coli in water is an indicator of faecal contamination. What is considered to be coli-titre? A.* The least amount of water, which revealed the presence of E. coli B. Number of E. coli in 1 liter of water C. Number of E. coli in 1 ml of water D. The total number of bacteria in 1 ml of water E. The total number of bacteria in 1 liter of water	
1889 What should be the number of microbial drinking water allowable for the Ukrainian state standards for drinking water? A. * 100 B. 1000 C. 10000 D. 100000 E. 1000000	
2957 There are certain requirements for bacterial water conditions, which are preparing certain dosage forms. Which indicators are used to assess the overall pollution of water? A * Number of bacteria in 1 ml of water B. The number of bacteria in 1 liter of water C. The presence of E. coli D. The presence of anaerobic bacilli E. The presence of enterococci	
1891 To characterize the bacterial contamination of the soil with the human or animal, determine the sanitary-indicative microorganisms. Which microorganism indicates long-standing fecal contamination of the soil? A. * Clostridium perfringens B. Escherichia coli C. Streptococcus faecalis D. Salmonella enteritidis E. Pseudomonas aeruginosa	
3296 Quite often, the soil may be the seat of a number of pathogenic microorganisms. Pathogens what diseases can be a long time to exist in the soil? A. * Pathogens of anthrax B. Pathogens of diphtheria C. Pathogens of viral hepatitis D. Pathogens of pertussis E. Pathogens of dysentery	

Disinfection, sterilization

3039 In the pharmacy for quality control of disinfection is used bacteriological method. The absence of what microorganism in the objects washings demonstrates the effectiveness of disinfection? A.* Escherichia coli B. Staphylococcus aureus C. Proteus vulgaris D. Pseudomonas aeruginosa E. Streptococci pyogenes	
3648 In the fight against infectious diseases and their prevention is of great importance disinfection. What is meant by this term? A. *Destruction of microorganisms in environmental objects B. Destruction of pathogens in the body of the patient C. The destruction of pathogenic microorganisms on the surface of the skin and mucous membranes D. The destruction insects - carriers of pathogens E. The destruction of rodents - the sources of infection	
3650 In pharmaceutical practice widely used: asepsis, antisepsis, disinfection, sterilization. Give the correct definition of the concept of "asepsis". A. *The prevention of hitting microbes on an object B. The destruction of the environment of pathogenic microbes C. Complete destruction of all forms of microbes on an object D. Using of substances that kill microorganisms on the skin and mucous membranes E. Using of substances that kill pathogenic microbes in the in the body of the patient	
1601 The pharmacy became necessary to sterilize the drug containing components, collapsing in the heat. Which method is better to use? A. * Mechanical B. Physical C. Chemical D. Biological	
90 To obtain bacterial exotoxin bacteria cultured in liquid nutrient medium, in which are toxins. With the help of	

what method can purify the environment from microorganisms and exotoxins get clean? A. * Filtration through bacterial filters B. Boiling C. Autoclaving D. Ultraviolet irradiation E. Using disinfectants	
228 In the pharmacy was sterilized drug mechanically. What apparatus used for this? A. *Seitz filter B. Sterilizer C. Autoclave D. Stove Pasteur E. Water bath	
660 In the pharmacy were prepared eye drops that contain a temperature-sensitive drug substance. Which method should be used for sterilization? A. * Filtration B. Igniting C. Boiling D. Pasteurization E. Processing of UV radiation	
3135 A large number of drugs (vaccines, serums, etc.) can not be sterilized by thermal method. What is the modern method of sterilization can be applied? A. * Filtering B. Igniting C. Tyndallization D. Boiling E. Autoclaving	
93 Before preparing the drug, which is used for internal administration, in the aseptic box is necessary to conduct decontamination of air and work surfaces. What method of sterilization it is appropriate to use this? A. * Sterilization by ultraviolet irradiation B. Sterilization by steam C. Radiation sterilization D. Sterilization by high-frequency currents E. Sterilization by formalin vapour	
97 For preparation of many drugs needs strict adherence to aseptic conditions. One of the sources of contamination of drugs by microorganisms may be laboratory dishes. Which	

method should be used for its sterilization? A. * Dry heat B. Igniting in the flame C. Boiling D. Tyndallization E. Pasteurization	
1905 In the pharmacy was made eye drops that must be packaged in sterile vials. Which of the methods of sterilizing equipment should be used? A. * Dry heat sterilization B. Autoclaving C. Boiling D. Disinfection E. Ultraviolet radiation	
1306 For sterilization of laboratory glassware in microbiological laboratory use: A. * Desiccator B. Bacterial filters C. Apparatus Koch D. Disinfectants E. Bacericidal lamps	
2060 In the pharmacy was prepared batch of bottles with glucose solution for injection. Which way you want to apply for sterilization? A. * In an autoclave by fractional steam method B. In an autoclave with a pressure of 2 atmosphere C. In an oven by dry heat method D. X-radiation E. Ultraviolet radiation	
3651 Which of the following methods of sterilization during a single thermal treatment of object provides a complete destruction of microorganisms and their spores? A. *Autoclaving B. Boiling C. Tyndallization D. In the Koch apparatus E. Pasteurization	
787 Injecting saline was sterilized in an autoclave at 120 ^{0}C for 20 minutes. What pathogens can maintain viability in this mode of sterilization? A. * Nothing B. Mycobacterium tuberculosis	

C. Clostridium tetanus D. Hepatitis B E. Pathogens of nosocomial infections	
3090 In the hospital pharmacy is made isotonic sodium chloride for parenteral administration. Choose the best method for its sterilization. A. * Autoclaving B. By dry heat C. By moist heat D. Boiling	
3134 In the bacteriological laboratory was prepared for sterilization MPB. What method of sterilization should be used? A. * Autoclaving B. Igniting C. Boiling D. Filtration E. By dry heat	
4284 In the pharmaceutical practice for the manufacturing of a number of drugs needed a sterile isotonic solution. Select the best method for its sterilization: A. * Steam sterilization with pressure B. Dry heat sterilization C. Boiling D. Igniting in the flame E. Pasteurization	
4555 Which method provides a reliable sterilization of termolabile biological fluids (serum, solutions of enzymes, vitamins, etc.)? A. * Tyndallization B. Dry heat C. Moist heat D. Autoclaving E. Igniting in the flame	
3655 Environmental microorganisms are exposed to various physical factors. What is the mechanism of action of high temperature on the microbial cell? A. * Irreversible degradation of all cellular structures B. Mutagenic effect C. The transition to the anabiosis D. Hydrolysis of proteins E. Saponification of fats	

2830 Environmental microorganisms are exposed to various physical factors - drying, high temperature, ultraviolet irradiation, etc. What is the mechanism of action on microbial cell high temperature? A. *Irreversible destruction of all components of the cell B. Mutation C. Dehydration of cytoplasm D. Isolation of RNA from cells E. Partial denaturation of proteins	

Phytopathogenic microorganisms

753 Phytopathogenic microorganisms cause disease in plants, which leads to the deterioration of medicinal raw materials. What is the main seat of the pathogens in nature? A. * Soil B. Water C. Air D. Animals E. Insects	
768 Phytopathogenic microorganisms belong to different taxonomic groups. Representatives of what of them often cause infectious diseases of medicinal plants? A. * Fungi B. Viruses C. Bacteria D. Actinomycetes E. Mycoplasmas	
1305 Phytopathogenic microorganisms alter the pharmacological properties of plants. What are the microorganisms most commonly cause these diseases? A. * Fungi B. Viruses C. Bacteria D. Actinomycetes E. Mycoplasmas	
801 At collecting of medicinal raw material (elderberry fruit) on the branches of plants were found numerous tumors. What phytopathogenic microorganisms are most likely to cause such damage to plants?	

A. * Fungi B. Actinomycetes C. Mycoplasmas D. Viruses E. Bacteria	
1903 Plant's raw materials should be screened for the presence of yeast-like fungi. What type of environment you must use in order to ensure the development of this type of microorganism, but that while the accompanying microflora not grow or grew very slowly? A. * Agar Saburo B. Endo Agar C. Meat-peptone agar D. Milk-salt agar E. Blood agar	
2334 When microbiological study of medicinal plant materials identified bacteria of different species. Among them to epiphytic microflora include: A. * Erwinia herbicola B. Erwinia carotovora C. Erwinia amilofora D. Pseudomonas syringae E. Xanthomonas beticola	
2335 For destruction of phytopathogenic microorganisms, affecting medicinal plants, should carry the following activities, except: A. * Use mineral fertilizers B. Processing of seeds C. Processing of plants D. Remove infected plants E. Extermination of carriers of pathogenic microorganisms	
2336 Diseases of medicinal plants, which are caused by phytopathogenic bacteria, have different manifestations. Specify the main symptom of bacterial wilt: A. *Fading B. Spotting C. Tumor D. Decay E. Burn	
2555 During harvesting of plant material we must take into account that plants can be a good breeding ground for the	

development of many species of microorganisms. Select from methods, often used to prevent the growth of microorganisms on plants. A. * Drying of plants B. Processing of plants by antibiotics C. Heat (90-100 ° C) processing of plants D. Processing of plants by detergent E. Freeze drying	
2918 At the pharmaceutical company the party vegetable raw materials for the manufacture of herbal medicines was entered. What microbiological tests should be used to assess the quality of the raw materials? Define. A. * The total number of microorganisms in 1 g of raw B. Coli-titer C. Coli index D. Antimicrobial activity E. Pyrogens	
3851 There is disease in which leaves are formed yellow spots and areas of necrosis on the plantation of medicinal plants. Juice of diseased plants retains infectivity when passing through a bacterial filter, but when plated on nutrient medium the growth of the pathogen is not detected. To which group of pathogenic microorganisms most likely belongs to the agent of this disease? A. * Viruses B. Fungi C. Actinomycetes D. Bacteria E. Mycoplasmas	
2865 A large number of plants with a mosaic of colored leaves were revealed during the collection of medicinal plant on plantations. Revealed a sharp decline in the raw number of the active ingredient. What is the most likely infectious agent caused the destruction of such plants? A.* Phytopathogenic viruses B. Phytopathogenic bacteria C. Soil toxic substances D. Microscopic ticks E. Nematodes	
335 When microbiological control of medicinal plant raw material was cultivated its at different differential-diagnostic medium. What are the microorganisms that cause diseases of plants, can not be defined in such a study?	

A. * Viruses B. Bacteria C. Mycoplasmas D. Fungi E. Actinomycetes	
3852 Collected medicinal plants have atypical coloration of leaves and flowers - mosaic arranged bright spots. It was found that an infectious agent that caused the disease, is a small RNA molecule, non-protein membrane. To which group of pathogenic microorganisms most likely belongs to this pathogen? A. * Viroids B. Bacteria C. Prions D. Fungi E. Actinomycetes	
1383 Seen from medicinal plants found uncharacteristically proliferation of lateral shoots (witches' broom), cessation of fruiting and several other signs of infection. For what group of pathogenic microorganisms is characterized by these manifestations? A. * Mycoplasmas B. Fungi C. Actinomycetes D. Viruses E. Viroids	
1302 Plants often infected by microorganisms that alter their pharmacological properties. Among them are common mycoplasmas. The signs of mycoplasma infection in plants is: A.* Dwarfing, yellowing, cessation of fruiting B. Small, light-green spots on leaves C. Rotting of the root system D. The development of tumors of the root system E. Spots on leaves, flowers, fruits, burns, soft rot	
4526 Injurious effect of pathogenic microorganisms on the plants due to the action of certain enzymes. Which groups of enzymes allow phytopathogenic bacteria to penetrate deep into the plant? A. * All list B. Celullases C. Proteases D. Pectinases E. Hydrolases	

800 Freshly picked herbs were contaminated by bacteria of genus Pseudomonas, which cause maceration of plant tissues and destruction of cell membranes. How enzyme can be caused by phytopathogenic properties of this organism? A. * Pectinase B. Nitrate reductase C. Catalase D. DNAse E. Glucase	

Microbial contamination of medicines

1906 In the production of medicines must prevent of microbial contamination. How is this set of measures? A. *Asepsis B. Disinfection C. Sterilization D. Deratization E. Antisepsis	
546 In accordance with the requirements of the State Pharmacopoeia should be sterile medicines: for eye, for parenteral use, and substance and auxiliary substances used in their manufacture. Which method is used to control their sterility? A. * Membrane filtration B. Paper discs C. Serial dilutions D. Diffusion in agar E. Two-phase fermentation	
1307 Sterility of drugs with antimicrobial action defines the following methods: A. * The method of membrane filtration B. The method of Koch C. With the Krotov apparatus D. Method of Weinberg E. Disco-diffusion method	
762 According to the requirements of WHO and Pharmacopeia of Ukraine in different non-sterile medicines are allowed a certain amount of bacteria and fungi. How many	

saprophytic bacteria and fungi in 1 g (ml) oral medication guarantee its security? A. * 1000 bacteria and 100 fungi B. 500 bacteria and 50 fungi C. 250 bacteria and 25 fungi D. 500 bacteria and 200 fungi E.1500 bacteria and 150 fungi	
1892 In accordance with the requirements of WHO and the Pharmacopoeia of Ukraine in the ear drops the number of microorganisms in 1 ml of the drug should not exceed: A. * 100 microbial cells (bacteria and fungi) B. 10 microbial cells (bacteria and fungi) C. 1000 microbial cells (bacteria and fungi) D. 10 000 microbial cells (bacteria and fungi) E. 100 000 microbial cells (bacteria and fungi)	
1893 Quality of medicines we can evaluate on a number of indicators, including the microbiological purity. Indicate group of medicines, which may be significantly greater saprophytic bacteria than in other group? A. * Infusions B. Aerosols C. Suppositories D. Eye drops E. Injection solutions	
1303 Bacteriological control of non-sterile drugs suggests the possibility of the presence of a small number of groups of microorganisms. What is it? A. * Sarcina B. Escherichia coli C. Pseudomonas aeruginosa D. Staphylococcus aureus E. Streptococcus pyogenes	
2059 According to the pharmacopoeia requirements medicines for local use must be controlled to "microbiological purity". What microorganisms must not present in this group of drugs? A. * Staphylococcus aureus B. Yeasts C. Staphylococci saprophyticus D. Mold fungi	
2556 The results of microbiological testing of extract from leaves of Peppermint, evidence of its inconsistency	

pharmacopoeia requirements. Enter a reason. Identified: A. * Pseudomonas aeruginosa B. Yeast-like fungi C. Epidermal staphylococci D. Mold fungi E. Micrococci	
3853 After bacteriological study of tablets was found unfit for use, although its total microbial insemination does not exceed the norm. Detection of any microorganisms in the sample allowed to make such a conclusion? A. * Enterobacteriaceae B. Mold fungi C. Actinomycetes D. Micrococcus E. Sarcina	
4121 According to the pharmacopoeia requirements in non-sterile pharmaceuticals may be the presence of microorganisms. What organisms should not be present in them: A. * Enterobacteriaceae B. Yeasts C. Micrococcus D. Mold fungi E. Sarcina	
1382 Total microbial semination of the drug for external use does not exceed the norm, but the drug found unsuitable in pharmaceutical practice. Detection of microorganisms which allowed making such a conclusion? A. *Enterobacteriaceae B. Mold fungi C.Yeasts D. Sarcina E. Micrococci	
2329 Herbal raw materials may contaminate on phases: A. *All listed B. At gathering C. At pre-processing D. At drying E. At getting the final product (sliced raw materials, briquettes, pellets, etc.)	
2330 Sources of microorganisms in the dosage forms, which are made in pharmacies, are:	

A. * All the way B. Only raw C. Only water D. Only the hands of staff E. Only the air space	
2331 The signs of microbial spoilage of liquid dosage forms: A. * All listed B. Only clouding transparent dosage form C. Only the appearance of the precipitate, increasing in volume D. Only the formation of a film on the surface E. Only the appearance of this unusual form of drug odor	

Antiseptics, chemotherapeutic drugs

1907 In modern surgical practice, widely used antimicrobial agents for antiseptic treatment of wounds, skin, cavities, which are connected with the environment. Which of the below listed groups not belonging to an antiseptic drug? A. * Aminoglycosides B. Derivatives of heavy metals C. Surfactants D. Oxidizing E. Derivatives of iodine	
792 In the pharmacy was a received lot of the long microbostatic action for processing skin, mucous and wound surfaces to prevent and treat infectious skin lesions. To which group of antimicrobial drugs they are? A. * Preservatives B. Antibiotics C. Probiotics D. Sulfonamides E. Disinfectants	
166 In traumatology for washing of wounds widely used by 3% hydrogen peroxide solution. Which group is a disinfectant? A. * Oxidizing B. Surfactants C. Phenols D. Acids E. Aldehydes	
4389 For the treatment of wounds of patient who suffered in an	

accident, the doctor used the antiseptic from the group of oxidants. Name it: A. * Hydrogen peroxide B. Ethanol C. Ethacridin lactate D. Methylene blue E. Brilliant green	
2829 In surgery to prevent infection of wounds are widely used antiseptics. Which of them are called "immobilized antiseptics"? A. *Bearer and of active substance B. Hydrogen peroxide C. An alcoholic solution of brilliant green D. Alcohol tincture of iodine E. Iodoform	
3656 In surgery to prevent infection of wounds commonly used antiseptic agents. Which of the following drugs belong to the "immobilized antiseptic"? A. *Bactericidal patch B. Hydrogen peroxide C. An alcoholic solution of brilliant green D. Tincture iodine E. Iodoform	
2563 What is the concentration of ethanol being the most effective exhibits antimicrobial action? A. * 70% B. 100% C. 60% D. 50% E. 20%	
342 The patients with pyelonephritis of urine culture isolated Pseudomonas aeruginosa, which was sensitive to gentamicin. What method can use for establishment the minimum inhibitory concentration of microbial growth (MIC) of antibiotics? A. * The method of serial dilutions B. The method of paper discs C. The method of "wells" D. Bezredka method	
4032 From a woman after childbirth was isolated pathogenic staphylococci and determined its sensitivity to antibiotics. Which method is used for this purpose?	

A. * The method of "paper" discs B. Bacterioscopical method C. Serological method D.Biological method E. Serological method	
4113 At estimating of the antimicrobial activity of drugs determine the minimum inhibitory concentration of microbial growth (MIC). What is it like? A. * The lowest concentration of drug which inhibits the growth of bacterial test-cultures B. The lowest concentration of drug that causes a bactericidal effect C. The lowest concentration of the drug, which leads to the appearance of selective strains of bacterial test-cultures D. The lowest concentration of the drug, depressing the biosynthesis of enzymes in macroorganisms	
1611 An important characteristic of the effectiveness and safety of chemotherapeutic drugs is a chemotherapeutic index (an index of Ehrlich), which represents the ratio of two doses. What? A. * The maximum toxic dose and minimum therapeutic dose B. Minimum toxic dose and maximum therapeutic dose C. Maximum toxic dose and the maximum therapeutic dose D. Minimum toxic dose and minimal therapeutic dose	
343 A chemotherapy drug has bactericidal action on the streptococci, staphylococci, bacilli and clostridia. On the spectrum of this drug is: A. * Antibacterial broad-spectrum drugs B. Antimicrobial narrow spectrum drugs C. Antifungal broad-spectrum drugs D. Antiviral drugs E. Anti-TB drugs	
344 The chemical compound that does not irritate the skin and has expressed antimicrobial activity on bacteria, viruses, fungi, actinomycetes and protozoa, a chemotherapeutic index of 1,5. For what purpose is the connection categorically can not be applied? A.* For the chemotherapy of bacterial infections B. For disinfection C. For deratting D. For sterilization of dressings	

E. For sterilization of laboratory glassware	
1612 Genetic basis of out-chromosome antibiotic resistance in microbial strains are: A. *Plasmids B. Nucleoid C. Spores D. Ribosomes	
659 In the treatment with antibacterial agent's bacteria rapidly form resistance to drugs. What are the structural components of bacteria being the reason? A. * R-plasmid B. Spore C. Capsule D. Flagella E. Granules of volutin	
2960 In the study of antibioticogramme of pure culture of Salmonella was identified multidrug resistance to antibiotics. Which factor is most likely could cause this phenomenon? A. * R plasmids B. Mutations in the chromosome C. Virulent phages D. Temperate phages	
3577 Bacteria may contain, along with chromosomal and out-chromosomal hereditary elements - plasmids. The presence of plasmid genes may occur: A. * Multidrug-resistant B. Resistant to stains C. Resistance to physical factors D. Ability to sporulation E. Ability to mobility	
2864 Because treatment of the patient by small doses of penicillin were formed forms of bacteria that are resistant to the action of this drug. How are those forms? A. * L - form B. Protoplasts C. R forms D. S forms E. O forms	
2961 From patients with sepsis was isolated pure culture of	

staphylococci that produce beta-lactamase. When we must take into account this property? A. * When selecting an antibiotic for the treatment B. In determining the biochemical properties C. In determining the pathogenicity of strain D.When differentiating of certain types of staphylococci E. When selecting optimal conditions for cultivation	
2048 With the patient appeared suppuration of surgical wounds. During bacteriological study of purulent discharge was revealed E. coli, resistant to penicillins, cephalosporins, tetracyclines and macrolides and sensitive to aminoglycosides. Which drug should advise the patient? A. * Gentamicin B. Oxacillin C. Doxycycline D.Cefotaxime E. Erythromycin	
2610 What a natural compound is the basis for semisynthetic penicillins? A. * 6-aminopenicillanic acid B Phenoxymethylpenicillin C. β - lactam ring D. Oxacillin E. Methicillin	
2611 Which of the following antimicrobial agents inhibits the growth of anaerobic asporogenous microorganisms? A. * Metronidazole B. Polymyxin C. Vancomycin D. Sulfacil E. Emetine	
2959 Microscopic examination of smears from bronchial secretions after dyeing with Ziehl-Nielsen were identified acid-fast bacilli of ruby-red color. Which product you want to assign to treat the patient in case of confirmation of the diagnosis of tuberculosis? A. * Rifampicin B. Cephalosporin C. Tetracycline D. Penicillin E. Sulfonamide	
3787 Pharmacy of pulmonary center receives a number of	

antimicrobial agents. Which one is used to treat tuberculosis? A. * Rifampicin B. Ampicillin C. Erythromycin D. Tetracycline E. Levomicyn	
1887 In the family was identified the patient with open tuberculosis. After his exclusion to all family members need to appoint agents for chemoprophylaxis of tuberculosis. Which drug can nominate? A. * Ftivazid B. Interferon C. Tetracycline D. Sulfadimezin E. Remantadin	
2962 After long treatment with antibiotics in the patient's smears of vaginal secretion was revealed oval cells with well-differentiated nucleus, some cells reproduce by budding. What drugs should be applied for treatment in case of confirmation of the diagnosis of candidiasis? A. * Antifungal B. Antibacterial C. Antichlamidial D. Antiviral E. Antiprotozoal	
2057 At microscopy of the patient's vaginal discharge was revealed round or oval Gram-positive cells, which are reproduce by budding and form pseudo-mycelium. What drugs should recommend for treatment in case of confirmation of the diagnosis of candidiasis? A. * Clotrimazole, nystatin B. Penicillin, streptomycin C. Sulgin, ftalazol D. Tetracycline, oleandomicin E. Erythromycin, monomicin	
1888 The patient was treated with antibiotics for a long time about chronic bronchitis. As a complication of his treatment arose candidiasis. Which drug should be applied to eliminate candida? A. * Nystatin B. Fumagillin C. Rubomicin D. Sulfadimezin	

E. Interferon	
1381 At patients with severe bacterial infection was appointed broad-spectrum antibiotic. In order to prevent dysbacteriosis, which may be the result of prolonged antibiotic therapy, in addition to assign A. * Nystatin B. Sulgin C. Immunoglobulin D. Interferon E. Lysozyme	
763 Classification of antibiotics is carried out on different principles. Which of these groups on the mechanism of action include the cephalosporins? A. * Inhibitors of the synthesis of cell wall B. Inhibitors of protein synthesis C. Inhibitors of respiration processes D. Inhibitors of oxidative phosphorylation E. Inhibitors of the synthesis of cell membranes	
4386 The patient was assigned an antitumor antibiotic, depressing the synthesis of nucleic acids in cells. Which of the following antibiotics has such a mechanism of action? A. * Actinomycin B. Tetracycline C. Nystatin D. Lincomycin E. Erythromycin	
4114 Antibiotics are classified by source of producing. Specify antibiotic bacterial origin. A. *Gramicidin B. Penicillin C. Tetracycline D. Lysozyme E. Gentamicin	
804 At the enterprise for the production of antibiotics as a producer used actinomycetes. Which of the following drugs can produce this enterprise? A. * Tetracycline B. Penicillin C. Cephalosporin D. Polymyxin E. Gramicidin	

4390 For the treatment of ulcerative process cornea patient used antibiotics of animal origin. How is this medicine? A. *Lysozyme B. Chlorofillipt C. Nystatin D. Novoimanin E. Gramicidin	
536 It is known that hepatitis B - a systemic disease caused by hepatitis B virus and is characterized by a primary lesion of the liver. Of the following list, select drugs for causal treatment of this infection. A. *Acyclovir B. Penicillin C. Tetracycline D.Sulfonamide E. Fluoroquinolone	
1886 During the influenza epidemic at patient with fever and a runny nose was diagnosed “influenza”. What chemotherapy can be recommended for treatment of a patient? A. * Remantadin B. Penicillin C. Streptocide D. Streptomycin E. Novarsenol	
336 In some infections interferon play the important role in the mechanisms of protecting. When must use preparations of interferon? A. * Viral B. Helminthal C. Protozoal D. Micobacterial E. Fungal	
4525 In the city is influenza epidemic. Which drug listed below can be recommended for people to nonsepecific prevention of the disease? A. * Leukocyte interferon B. Flu-vaccine C. Antibiotic D. Influenza immunoglobulin E. Flu-antiserum	

4388 In the pharmacy were received a drug widely used for treating many viral diseases, since it does not have virus-specific. Name this drug. A. * Interferon B. Remantadin C. Metisazon D. Immunoglobulin E. Vaccine	

Vaccines, immune serum

540 In accordance with the purpose and principles of manufacture of bacterial preparations are divided into groups. Which group includes preparations for the formation of active immunity? A. *Vaccines B. Antisera C. Immunoglobulins D. Monoclonal antibodies E. Bacteriophages	
2964 For mass using among children is a drug of living organisms with reduced virulence. What type of drugs it belongs? A. * Lived vaccines B. Toxoid C. Antisera D. Eubiotics E. Immunoprotectors	
2602 To formation of active immunity in humans should be used vaccine drugs. What medication is made of live attenuated bacteria? A. * BCG vaccine B. ADTP vaccine C. Salk vaccine D. Vaccine TABTe E. Vaccine against hepatitis A	
4377 To formation of artificial active immunity against tuberculosis in the school was conducted routine vaccination. What vaccine was used for this? A. * Lived	

B. Inactivated C. Toxoid D. Recombinant E. Subunit	
2607 In the maternity home infants at 5-7 days after birth were vaccinated against tuberculosis. Which drug is used for specific prevention of tuberculosis? A. * BCG vaccine B. ADTP vaccine C. Vaccine STI D. Vaccine EV E. Vaccine TABTe	
1604 In the maternity home newborns to prevent tuberculosis vaccine was entered. What vaccine was used? A. * BCG B. Mantoux C. ADTP D. Toxoid E. Sabin	
785 To carry out preventive vaccination in children's clinic was received a number of vaccines. Which of them form non sterile immunity? A. * BCG B. ADTP C. DT D. Measles's lived E. Influenza's subunit	
2051 In the maternity home a newborn need a vaccination against tuberculosis. Which drug should be used with? A. * BCG vaccine B. Vaccine STI C. The vaccine EV D. APDT vaccine E. Tuberculin	
3221 In the maternity home for 5 day-children had a primary vaccination with BCG. What type of immunity should be formed in the body following immunization? A. * Artificial non sterile B. Artificial passive C. Artificial antitoxic D. Artificial sterile E. Natural passive	

794 In the process of abdominal-typhoid vaccine preparation virulent strain of the bacteria were cultured at an optimal nutrient medium. The cells were then separated by centrifugation from the culture fluid and treated with formalin. What type is this vaccine? A. * Inactivated B. Attenuated C. Chemical D. Toxoid E. Autovaccine	
2870 The pharmaceutical firm reported about the drug, which contains the outer envelope antigens of influenza viruses. With a purpose to applying this medicine? A. * For active immunization against influenza B. For inactivation of influenza viruses C. To form an artificial passive immunity D. For treatment of influenza in the early stages E. For quick diagnosis of influenza	
661 WHO recommend for prevention of influenza should be use of vaccine "Influvak" that composed of components of the shell virion. What type of origin of such a vaccine? A * Subunit B. Toxoid C. Recombinant D. Lived E. Antiidiotypical	
4257 For specific prevention of diphtheria, pertussis and tetanus vaccine is used, which contains in its composition of microorganisms and neutralized formalin exotoxins. What type of vaccine, it belongs to? A. * Associate B. Genetic engineering C. Toxoid D. Chemical E. Lived	
2033 For prevention of pertussis, diphtheria and tetanus should be use vaccine APDT. How is this vaccine, which consists of dead microbial cells of a pathogen and toxoids others? A. * Associated B. Genetic engineering C. Chemical	

D. Autovaccine E. Antiidiotypic	
1606 In accordance with a calendar of planned vaccination of children should be vaccinated against diphtheria. Which drug should be used for this purpose? A. * ADTP B. BCG C. PASA D. HINA E. TABTe	
3463 For the prevention of childhood infections in children should be used associated vaccine APDT. Specify the type of pertussis, which is included in its composition. A. * Inactivated B. Attenuated C. Chemical D. Toxoid E. Genetic engineering	
1388 A plant of bacterial preparation produces several types of vaccines. Which refers to the mandatory use of vaccines? A. * Measles B. Rabies C. Plague D. Typhoid E. Influenza	
1895 According to calendar of vaccinations for different age children should be use different vaccines for prevention of infectious diseases. Call the vaccine, which does not belong to the drugs for the mandatory application? A. * Lived vaccine against rabies B. Lived vaccine against measles C. Lived vaccine against mumps D. Polio-vaccine E. Pertussis-diphtheria-tetanus vaccine	
1607 Upon receiving rabies vaccine L. Pasteur used a specific method of reducing the virulence of wild rabies virus. Give it: A.* Passages through the rabbit brain B. Cultivation on media with bile C. Incubation at low temperature D. Formolation E. The impact of UV rays	

2042 A person was bitten by an unknown dog. He asked in the surgical study. Person's large lacerations were localized in the facial area. What medical and preventive care should be given to prevent rabies? A. * Start immunize with rabies vaccine B. Assign a combination antibiotic therapy C. Urgent inject the ADTP vaccine D. Hospitalize and examine patients E. Urgent inject normal gamma globulin	
177 Workers of dairy farm had specific epidemic prevention of brucellosis. Which vaccines are used for this purpose? A. * The lived B. Recombinant C. Chemical D. Toxoid E. Synthetic	
3218 Currently, for specific prevention using oral polio vaccine. At what age it is used for vaccination of children? A. * From 3 months B. From 12 months C. From 7 months D. By epidemiological evidence E. From 17 years	
4258 Genes of hepatitis B virus, which encode the synthesis of HBs Ag, was integrated in yeast cells, from which later produced the drug for the specific prevention of the disease. What is this medicine? A. * Recombinant vaccine B. Associate vaccine C. Eubiotics D. Chemical vaccine E. Autovaccine	
223 In recent years, been an increase in the incidence of hepatitis B. In order to establish active immunity shall vaccination of the population. Which drug for this use? A. * Recombinant vaccine B. Lived vaccine C. Inactivated vaccine D.Specific immunoglobulin E. Toxoid	
167 Workers of blood transfusion stations were vaccinated	

with genetic engineering vaccine. Against what a viral disease, it is used? A. * Hepatitis B B. Influenza C. Measles D. Rubella E. AIDs	
4372 Workers of station transfusions were immunized with the recombinant vaccine. Indicate for the prevention of what disease were vaccinated? A. * Hepatitis B B. Syphilis C. Leptospirosis D. AIDs E. Influenza	
2969 The causative agent of viral hepatitis can not be cultivated in laboratory conditions, however, now widely used vaccine is created based on the protein surface membrane of the virus. Which method is used to obtain such a vaccine? A. * Transplantation of virus genes in yeast cells B. Immunization of horses artificially created surface antigens C. Integration of surface antigen in liposomes D. Chemical synthesis of antigens E. The method of monoclonal antibodies	
1896 After a routine APDT vaccination in the child's body temperature rose to 38.5^0 C, which was kept two days? To which group on the criteria of safety belongs to the vaccine? A. * Average reactogenicity B. Low reactogenicity C. High reactogenicity D. Low-toxicity E. Average- toxicity	
2557 For the treatment of infectious diseases should be use antitoxic serum. Indicate for what disease main treatment is using of antitoxic serum. A. * Diphtheria B. Esherihiasis C. Nocardiasis D. Listeriasis E. Influenza	

180 In technology of producing of immune sera animals immunized several times, as in the secondary immune response significantly increases the rate of formation and the amount of antibodies. How can this be explained? A. * The presence of T and B cell memory B. Decrease of T-suppressor C. Increase of macrophages D. Decrease of NK activity E. Enhancement of phagocytosis	
182 In the practical application of therapeutic antitoxic serum, the patient always gets well-defined dose. What units are determined by the activity of these sera? A. * International B. Hemolytic C. Bacteriostatic D. Lethal E. Units of flocculation	
2558 Choose among the listed drug that is used for specific treatment Foodborne diseases caused by botulinum toxin. A. * Antitoxic botulinum antitoxin B. Botulinum toxoid C. APDT vaccine D. BCG vaccine E. Antibiotics	
2869 Such diseases as diphtheria, tetanus, botulism caused by pathogens that produce exotoxins. What drugs should be used to treat such infections? A. * Serum obtained by immunization of horse's toxoid B. Serum people that had these diseases C. Sera from vaccinated persons D. Toxoids E. Antibiotics	
2914 With what purpose to apply the drug, obtained by immunization of horses with toxoid obtained from tetanus toxin? A. * For the treatment of tetanus B. For the active immunization against tetanus C. For diagnosis of tetanus D. For vaccination against tetanus E. As a component of pertussis-diphtheria-tetanus vaccine	
1897 After the accident victim have provided medical care and	

got the immunological preparation for artificial passive immunity against anaerobic infections. Which? A. * Antitoxic serum B. Toxoid C. Lived vaccine D. Immunotoxins E. Chemical vaccine	
176 Trauma patients after surgical treatment of wounds had a passive prevention of wound infection. Which drug is used for this purpose? A. * Antiserum B. Toxoid C. Normal serum D. Lived vaccine E. Antibiotics	
2970 For specific treatment for patient with botulism was applied heterologous botulinum antiserum. What is the mechanism of action is given medication? A. * Binds and neutralizes toxins of ABE serovars pathogen B. Binds and neutralizes the causative agent C. Creates an active antitoxic immunity D. Creates an active antimicrobial immunity E. Creates a passive antimicrobial immunity	
2974 It is known that before the onset of symptoms patients with hepatitis A contacted with 3-year-old child. Which medication you need to inject the child in order to prevent the infection? A. * Gamma globulin B. Interferon C. Remantadin D. Penicillin E. Vaccine	
3176 In the kindergarten the child got the measles. What medication can prevent this disease from contact persons? A.* Measles immunoglobulin B. Measles vaccine C. Immune-modulator D. Antibiotics E. Sulfonamide	
805 In the Pharmaceutical Industry from the blood of hyperimmunized horses produce a drug that is used for	

specific prevention and treatment of tetanus. What is the active ingredient of this drug? A. * Gamma globulin B. Toxoid C. Interferon D. Fibronectin E. Complement	
767 In the school is a registered case of hepatitis A. Which drug should be applied to specific prevention for children who have been in contact with a sick classmate? A. * Immunoglobulin B. Lived vaccine C. Inactivated vaccine D. Interferon E. Ribavirin	
539 During the laboratory diagnosis of viral hepatitis in the laboratory worker broke test tube with the patient blood and cut his skin of the hand by a piece of glass. What should be injecting a drug for emergency prevention of hepatitis B? A. * Specific immunoglobulin B. Killed vaccine C. Recombinant vaccine D. Chemical vaccine E. Lived vaccine	
3859 For tetanus gamma globulin being donor's hyper-immunization with tetanus toxoid. What class of immunoglobulins will prevail in this drug? A. * IgG B. IgA C. IgM D. IgE E. IgD	
2041 A man with extensive traumatic wound shin got drug for the prevention of tetanus. A few minutes after the injection he had pain behind the breastbone, difficulty breathing, tachycardia, blood pressure dropped sharply. On what product you have this reaction? A.* Tetanus antitoxic serum B. Tetanus toxoid C. Antitetanus immunoglobulin D. Antibiotic E. APDT vaccine	
2050 The patient was an urgent need to inject diphtheria	

antitoxic serum. How to prevent anaphylactic shock if allergic to the serum sample is positive? A. * The serum can be administered, but only after desensitization of Bezredko B. The serum can not be administered C. Serum should be administered only by intravenous D.Serum should be administered only by intramuscular E. Serum should be administered only with diphtheria toxoid	
174 Before the injection of a heterogeneous antitoxic serum patient is necessary to use the method of desensitization. What's it called? A. * Bezredka B. Koch C. Pfeiffer D. Shik E. Mantoux	
1389 The patient with acute infectious diseases is urgently needed to inject the immune serum. In order to avoid anaphylactic shock, it should be administered with great caution, fractional. Which method is used? A. * Bezredka B. Ehrlich C. Remer D. Ramon E. Ozheshko	
752 Bacterial exotoxins have been essential in the pathogenesis of some infectious diseases. Which drugs must be use for specific prevention of these diseases? A. *Toxoids B. Inactivated vaccine C. Antitoxin D. Lived vaccines E. Antiidiotypical vaccine	
2341 Toxoid get: A. * Formolation B. By treating phenol C. By immunization D. By treating antibody E. By injecting of serum	
214 For the prevention of tetanus toxin are used, treated with formalin (0.4%) at 37 ˚ C for four weeks. How is this	

medicine? A. * Toxoid B. Immunoglobulin C. Antitoxic serum D. Adjuvants E. Killed vaccine	
2963 One of the products for mass using may be produced with inactivation of bacterial exotoxin by formalin. For what purpose are using this medicine? A.* For active immunization B. For serodiagnosis C. For passive immunization D. For treatment of toxemia E. For immune-correction	
4371 Pharmacy company received an order for delivery to the laboratory diagnostic products used to study the antigenic properties of the parasite. What are these drugs? A. * Diagnostic sera B. Allergens C. Diagnosticums D. Immunoglobulins E. Bacteriophages	
2968 Microbiological Laboratory of Infectious Diseases Hospital isolates pure cultures of pathogens and carries out their serological identification. What diagnostic preparations for this necessary? A. * Diagnostic sera B. Antigen-diagnostics C. Differential-diagnostic media D. Erythrocyte diagnostics E. Latex diagnostics	
1898 In the infectious disease clinic was taken patient with a preliminary diagnosis of typhoid fever. During bacteriological study of blood of a patient was identified pathogen - S. typhi. What immunological preparations should be used to confirm the antigenic structure of the causative agent of typhoid fever? A.* Diagnostic agglutinating serum B. Diagnostic precipitating serum C. Therapeutic antiserum D. Heterologous immunoglobulin E. Antiglobulin serum	
1391	

Pharmacy firm supplied diagnostic products to the hospital laboratory. The list of specified drugs, which are used to detect antibodies in the serum of the patient. How are they called? A. * Diagnosticums B. Allergens C. Diagnostic sera D. Immunoglobulins E. Bacteriophages	
225 Pharmacy company supplied diagnostic products used for serological examination of patients to the laboratory. What are these drugs? A. * Diagnosticums B. Allergens C. Diagnostic sera D.Immunoglobulins E. Toxoids	
2868 In immunological laboratories conducted studies of the blood serum of patients. What diagnostic preparations necessary to provide a laboratory to perform these tasks? A. * Antigens-diagnosticum B. Diagnostic sera C. Differential-diagnostic media D. Monoclonal antibodies E. Monoreceptor sera	
171 The hospital purchased in the pharmacy company drugs that used for the diagnosis of infectious diseases. These preparations reveal the presence of the patient's state of infectious allergy. How are those drugs? A. * Allergens B. Diagnosticums C. Diagnostic sera D. Immunoglobulins E. Toxoids	
376 In the formulation of diagnostic serological reactions (RIF, ELISA) in order to increase their specificity using monoclonal antibodies. Which of these methods to get? A. * Hybridoma technology B. Hyperimmunization of animals C. Cultivation of B-lymphocytes in vitro D. Immunization of human donors E. Cloning of immunoglobulin genes	

Eubiotics

229 In production of eubiotics to maintain the viability and stability of microorganisms should be dried from frozen state under high vacuum. What do you call this method? A. * Lyophilization B. Pasteurization C. Tyndallization D. Inactivation E. Hybridization	
340 A patient is causal treatment course of antibiotic. What drugs can prevent the occurrence of dysbacteriosis with antibiotic use? A. * Eubiotics B. Vitamins C. Immunomodulators D. Hormones E. Desensitizing drugs	
2047 At patient after long-time using of antibiotics has dysbacteriosis. What drugs should appoint to restore the normal microflora? A. * Eubiotics B. Sulfonamides C. Interferon D. Antifungal drugs E. Cephalosporins	
3854 Established that the medicinal product for oral administration contains more than 1 billion living microbial cells in 1 ml. Nevertheless, the drug was found suitable for use. Which group of drugs it belongs? A. * Eubiotics B. Antibiotics C. Vitamins D. Sulfonamides E. Immune-modulators	
4115 Drugs used to treat dysbacteriosis and contained living normal microflora and their metabolic products, have a specific name: A. * Eubiotics B. Immunoglobulins C. Vaccines	

D. Bacteriophages E.Antibiotics	
4253 Prevention of dysbacteriosis involves using drugs which contain in their composition of waste products of bifidobacteria. Which group they belong to prophylactic drugs? A. * Eubiotics B. Vaccines C. Sera D. Immunoglobulins E. Chemotherapeutical drugs	
793 Enterprise microbiological industry produces the drug, which is a live freeze-dried cells of E. coli. What is the most probable use of this drug? A. * Correction of dysbacteriosis B. Immunization C. Determination of coli-index D. Serodiagnosis of enterocolitis E. Formulation of allergic skin tests	
2601 In the child after long time treatment with antibiotics developed dysbacteriosis: weight loss, frequent stools, in the faeces of a significant number of hemolytic Escherichia coli, Proteus, Staphylococcus, few Lactic acid bacteria. Which of the following actions would eliminate the imbalance autochthonous microflora? A. * Cancel antibiotics and appoint eubiotics B. Replace antibiotics in the other and carry bacteriophage treatment C. Cancel antibiotics and appoint sulfonamides D. Assign nitrofurane-drugs and immunostimulators E. Assign chelators and immunomodulators	
1913 After the bacillary dysentery disease, doctor appointed biological products for the restoration of normal intestinal microflora. Which of the above resources do not belong to a biological product? A. * Osarsol B. Bificol C. Colibacterin D. Lactobacterin E. Bifidumbacterin	
1301 Correction of dysbacteriosis involves using of medications that contain living representatives of normal microflora and their metabolic products. Choose among the listed	

microorganismsare used for the manufacture of such drugs: A. * Bifidobacterium B. Staphylococcus aureus C. Proteus D. Streptococcus E. Yersinia	

SPECIAL MICROBIOLOGY

Gram-positive cocci (Staphylococcus spp., Streptococcus spp.)

847 In smears prepared from pus of a patient with inflammatory processes of tibia were revealed spherical Gram-positive bacteria, placed in grapelike clusters. What bacteria can be considered to cause the disease? A.* Staphylococci B. Streptococci C. Diplococci D. Micrococci E. Sarcina	
2598 The patient has osteomyelitis. In smears from the pus are Gram-method stained were revealed spherical violet organisms, arranged in the form of irregular clusters. What organisms can cause this disease? A. * Staphylococcus aureus B. Serratia marcescens C. Salmonella typhimurium D. Escherichia coli E. Pseudomonas aeruginosa	
4017 In the bacteriological laboratory was study purulent furuncle with microscopic method. In the Gram-stained smears was revealed globular microorganisms as grapelike clusters. What are microorganisms? A. * Staphylococci B. Streptococci C. Micrococci D. Gonococci E. Meningococci	
1901 Bacteriological surveys of workers at pharmacies	

bacteriocarrier from one of the pharmacists were isolated from nasopharyngeal bacterial genus Staphylococcus. What morphological properties inherent in this race? A. * Location of cells in grapelike clumps B. Cells in the location of a chain C. Arrangement of cells singly D. Location of cells in pairs E. Arrangement of cells tetrads	
231 In laboratory examination of plasma coagulated and fibrinolytic activity of staphylococcus is carried out. What nutrition media is for this purpose? A. * Citratic plasma B. Blood agar C. Sera agar D. Yolk-salt agar E. Saburo agar	
2967 Staphylococci grow well on simple media, however, the isolation of pure cultures from patients with seeding done on blood and yolk-salt agar. What purpose to use these media? A. * To determine the factors of pathogenicity B. To determine the staining properties C. To study the antigenic properties D. To determine the mobility of bacteria E. To determine the sensitivity to antibiotics	
3858 Workers of pharmacy are necessary to check on the carrier of Staphylococcus aureus. For this purpose, were taken from nasal swabs for bacteriological research. What nutrient medium should be used for its isolation? A. * Yolk-salt agar B. Casein-carbon agar C. Meat-peptone agar D. Sugar broth E. Selenite broth	
2049 There is a suspicion that among workers of the regional blood transfusion stations distributed carrier of pathogenic Staphylococcus aureus. In what medium should be cultivated material from the nasopharynx workers to identify staphylococcal carriage? A. * Yolk-salt agar B. Endo medium C. Meat-peptone broth D. Russell medium E. Blood agar	

4282 The patient with multiple boils on the skin asked to a dermatologist. The doctor suggested that the cause is staphylococci and sent pus to the laboratory for microbiological research. What is an elective culture medium for staphylococcus? A. * Yolk-salt agar B. Agar Saburo C. Alkaline agar D. Ploskirev agar E. Blood agar	
842 From vomit of child with symptoms of food poisoning from cakes, was isolated staphylococcus. Which factor of pathogenicity of staphylococci causes toxic syndrome? A. * Enterotoxin B. Hemolysin C. Exfoliative toxin D. Hyaluronidase E. Protein A	
4213 In kindergarten from children outbreak of Foodborne diseases after eating of confectionery. Among the majority of cases were isolated pathogenic staphylococci. What method can determine the source of infection with staphylococcus Foodborne diseases? A. * Phagotyping of isolated culture B. Complement fixation test (CFT) C. Neutralization test (NT) D. Reaction of immunofluorescence (RIF) E. Precipitation test (PT)	
848 In smears prepared from pus of a patient with inflammatory processes hand identified Gram-positive spherical bacteria, which are placed in the form of chains. What bacteria can be considered to cause disease? A. *Streptococci B. Saphylococci C. Diplococci D. Micrococci E. Sarcina	
3467 In smears prepared from pus of a patient with purulent inflammation of bones, identified Gram-positive spherical bacteria, which are located in the form of chains. What bacteria can be considered to cause the disease?	

A. *Streptococci B. Gonococci C. Meningococci D. Micrococci E. Sarcina	
2039 After examination of sick child 4 years' age, a doctor suspected streptococcal sore throat. What media must be for cultivation of mucus from the surface of the tonsils to clarify the diagnosis? A. * Blood agar B. Meat-peptone agar C. Medium of Lowenstein-Jensen D. Milk-salt agar E. Russell medium	
2597 The patient was suspected rheumatism. What is the pathogen most often it can cause? A. * Hemolytic streptococcus B. Meningococcus C. Staphylococcus aureus D. Pneumococcus E. Gonococcus	
179 After inspecting the sick child doctor diagnosed it "Scarlet Fever". Which microorganism is agent of this disease? A. * Streptococcus B. Staphylococcus C. Meningococcus D. Klebsiella E. Actinomycetes	
2053 In the sputum of a patient with suspected pneumonia revealed Gram-positive diplococci, slightly elongated, and with pointed opposite ends. What microorganisms were found in the sputum? A. * Streptococcus pneumoniae B. Staphylococcus aureus C. Klebsiella pneumoniae D. Neisseria meningitidis E. Streptococcus pyogenes	
2255 From a patient with acute pneumonia was investigated sputum. In smears from sputum Gram-positive cocci surrounded by microcapsule were found. Which microorganism is the most reliable cause of the disease? A. * Streptococcus pneumoniae	

B. Klebsiella pneumoniae C. Haemophilus influenzae D. Staphylococcus aureus E. Escherichia coli	
3125 In the study micro preparations made from sputum of patients with pneumonia, identified Gram-positive capsule lancet diplococci. What is a microorganism? A. * Pneumococcus B. Meningococcus C. Gonococcus D. Staphylococcus E. Enterococcus	
4215 From the patient with pneumonia during bacterioscopic study was revealed Gram-positive diplococci, which are placed in a flame of a candle and surrounded by a capsule. Indicate the most likely causative agent? A. * Pneumococcus B. Klebsiella C. Staphylococcus D. Gonococcus E. Meningococcus	
169 From the patient with high fever, chills, cough, sputum was isolated Gram- positive lancet diplococci with the capsule. Name the alleged agent. A. *Pneumococcus B. Staphylococcus C. Enterococcus D. Meningococcus E. Gonococcus	

Gram-negative cocci (N. meningitidis, N. gonorrhoeae)

222 From the patient with meningitis was taken CSF for examination. To isolate the pathogen, cultivate in a nutrient medium with sera. Which agent will be allocated? A. * Meningococcus B. Mycobacteria C. Staphylococcus D. Viruses E. Rickettsia	
2256 From the patient with signs of acute meningitis was taken	

to study cerebrospinal fluid (CSF). During the puncture, fluid flowed under pressure. In smears made from CSF were found unfinished phagocytosis with Gram-negative diplococci and partly outside of leukocytes. Which organism is most likely the cause of the disease? A. * Neisseria meningitidis B. Haemophilus influenzae C.Streptococcus pneumoniae D. Candida albicans E. Escherichia coli	
2915 For diagnosis of meningitis examine smears from the sediment of the cerebrospinal fluid, stained by Gram's method. Which of the identified characteristics confirm the diagnosis of meningococcal disease? A.* Gram-negative diplococci, placed in leukocytes and outside them B. Gram-positive diplococci, placed in leukocytes C. Gram coccobacilli placed in leukocytes D. Lanceolate Gram-positive diplococci E. Diplococci surrounded by a capsule	
2742 In the cerebrospinal fluid of a sick child with signs of purulent lesions of the meninges revealed Gram-negative diplococci of bean-shaped form. What is the presumptive diagnosis being possible on the basis of the results of the study? A. * Meningitis B. Gonorrhea C. Cholera D. Plague E. Anthrax	
1385 In the study of smears prepared from the cerebrospinal fluid of a sick child, found by gram-negative diplococci of bean-shaped form, located inside leukocytes. Indicate the probable causative agent. A. * Meningococcus B. Gonococcus C. Staphylococcus D. Rickettsia E. Streptococcus	
1305 In the infectious diseases hospital got a child with meningitis. Specify the most probable mechanism of infection: A. * Airborne B. Fecal-oral C. Vertical D. Transmissible	

E. Artificial	
754 Bacteriological study of patient's urethral discharge revealed in smears gram-negative diplococci that were located inside the leukocytes. Which of the following agents were detected in the patient? A. * Gonococci B. Meningococci C. Staphylococci D. Streptococci E. Micrococci	
1610 In smears of purulent urethral were detected bean-shaped Gram-negative diplococci that are located extra-and intracellularly. Put a presumptive diagnosis: A. * Gonorrhea B. Syphilis C. Chlamydia D. Trichomoniasis E. Candidiasis	
1885 When cultivated pus from the urethra on ascites agar grew translucent, round colonies. Microscopy from colony revealed gram-negative bean-shaped diplococci. What is the pathogen isolated? A. * Gonococcus B. Pneumococcus C. Meningococcus D. Micrococcus E. Streptococcus	
1894 When bacterioscopy of smears from the urethral secretions, revealed gram-negative diplococci that located intracellularly. What are microorganisms found in the test material? A. * Gonococci B. Meningococci C. Streptococci D. Staphylococci E. Peptostreptococci	
4028 The patient complained of purulent discharge from the urethra, severe cramps before and during urination. The preliminary diagnosis "acute gonorrhea". What is the microscopic picture confirming this diagnosis? A. * Bean-shaped diplococci within leukocytes B. Lanceolate diplococci outside of leukocytes C. Spherical cocci within leukocytes	

D. Tetracocci outside leukocytes E. Micrococci outside leukocytes	
4254 At microscopy of the patient's urethral discharge, revealed paired bean-shaped forms of bacteria, up to 1 micron in diameter, are located inside leukocytes. What are microorganisms? A.* Gonococci B. Meningococci C. Staphylococci D. Streptococci E. Micrococci	
4018 In the study of smears prepared from the pus of the patient's urethra, identified by gram-negative diplococci bean-shaped form, located inside the leukocytes. Diagnosed with acute gonorrhea. What method of laboratory diagnosis has been used? A. * Bacterioscopic B. Bacteriological C. Biological D. Serological E. Allergical	
4022 In the patient was diagnosed gonorrhea. Diagnosis based on the study of stained smears of pus from the urethra. What is the name used method of diagnosis? A. * Bacterioscopic B. Bacteriological C. Allergical D. Biological E. Serological	
4281 In the study of the smear of the pus from patient with gonorrhea doctor revealed gram-negative diplococci pair, that are both outside and inside leukocytes. How is this phenomenon? A. * Non-completed phagocytosis B. Completed phagocytosis C. Infection of phagocytes D. Pinocytosis E. Endocytosis	
2916 Modern methods of express-diagnostics make it possible to identify the gonococcal antigen in the material from the patient. Which method should be applied to identify the minimum number of such antigen? A. * ELISA	

B. Precipitation test C. Reaction of immunofluorescence D. Bacterioscopical method E. Isolation of pure culture	
4218 After a few days after birth infant has diagnosis “ophthalmia”. Which drug should be used after birth to prevent this disease? A.* 2% solution of silver nitrate B. Gonococcal vaccine C. Staphylococcal toxoid D. Staphylococcal vaccine E. Six-toxoid	

Bacteria from family Enterobacteriaceae
(Escherichia coli, Salmonella spp., Shigella spp., Proteus spp.)

2252 At bacteriological study of solutions, manufactured in the pharmacy on Endo medium grew red colonies with a metallic luster. What it may be germs? A. * Escherichia B. Shigella C. Staphylococcus D. Streptococcus E. Salmonella	
3123 In the study of excreta of three children with symptoms of intestinal infection on Endo medium grew many colonies of dark red color. What microorganisms can cause intestinal infection? A. * Escherichia B. Streptococcus C. Gonococcus D. Salmonella E. Shigella	
1301 In the clinic got a child complaining of abdominal pain, liquid stool with blood. At cultivating excreta on Endo medium grew crimson-red with metallic luster colonies. What features should be examined for evidence of enteropathogenic E. coli? A. * Antigenic B. Morphological C. Cultural D. Biochemical E. Tinctorial	

4025 For diagnosis of enterocolitis was carried out microbiological examination of stool. Which method allowed isolating and identifying pure cultures of the pathogen? A. * Bacteriological B. Bacterioscopical C. Biological D. Allergical E. Serological	
96 For the early diagnosis of typhoid fever (1 week of the disease) is used bacteriological study of pure cultures of the parasite. What is the biological material to be collected from patients during this period of the disease? A. * Blood for getting of blood-culture B. Serum C. Excrements D.Duodenal contents E. Vomit	
4210 Bacteriological study of typhoid fever is carried out at weeks I and III of the disease. What material useful for research to take the first week? A. * Blood B. Sputum C. Urine D. Bile E. Feces	
3126 In the infectious diseases hospital received a patient with a preliminary diagnosis of typhoid fever. He was ill 4 days ago. What material should be used in the first week of the disease to highlight the pathogen? A. * Blood B. Feces C. Urine D. Bile E. Serum	
3211 The doctor suspected in a patient with typhoid fever. What method of laboratory diagnosis of the most useful to nominate for confirmation of diagnosis in the first week of the disease? A. * Isolation of blood-culture B. Isolation of urine-culture C. Isolation mielo-culture	

D. Isolation bile-culture E. Isolation copro-culture	
227 In the clinic was taken ill with suspected typhoid fever. He was ill 10 days ago. What survey to assign the patient at this stage? A. * Widal test B. Blood test for blood-culture C. Study copro-culture D. Study mielo-culture E. Study urine-culture	
2249 The patient with suspected typhoid fever was taken to investigate the serum and test with diagnostics of Salmonella. What type of serological reactions includes it? A. * Reaction of agglutination B. Reaction of precipitation C. Complement fixation test D. Reaction of enzyme immunoassay E. Reaction of radioimmunoassay	
2867 From the patient with suspected typhoid fever isolated pure culture of bacteria with these characteristics: Gram-negative, mobile, lactose-negative and break down glucose to acid and gas, form hydrogen sulfide. What research should be to establish the species of these bacteria? A. * Agglutination test with the specific serum B. Identify additional biochemical properties C. Study toxin producing D. Identify flagella E. More to explore cultural properties	
1898 In the infectious disease clinic was taken ill with a preliminary diagnosis of typhoid fever. Bacteriological study of blood of a patient identified pathogen - S. typhi. What immunological preparations should be used to confirm the antigenic structure of the causative agent of typhoid fever? A.* Diagnostic agglutinating serum B. Diagnostic precipitating serum C. Therapeutic antisera D. Heterologous immunoglobulin E. Antiglobulin serum	
94 Twenty-four hours after eating the meatballs in the cafeteria a few students turned to a clinic complaining of stomach pain, vomiting, fever, and diarrhea. One of the	

pupils hospitalized in serious condition. What microorganisms can cause this Food Toxic? A.* Salmonella B. Streptococci C. Clostridium D. Shigella E. Meningococci	
4029 In the infectious disease clinic patients hospitalized with a preliminary diagnosis of "acute gastroenteritis". At cultivating of excreta on bismuth sulfite agar colony grew. Colony has black color with a metallic luster. Presumably, what are these microorganisms? A. * Salmonella B. Shigella C. Escherichia D. Yersinia E. Brucella	
181 From the patient with the acute intestinal infection taken to the study of feces. With a purpose of parasite isolating material planted on bismuth sulfite agar. Which agent will be allocated? A. * Salmonella B. Escherichia C. Proteus D. Staphylococcus E. Klebsiella	
544 In school was registered bacterial dysentery in children who had lunch in the dining room. Specify the most probable mechanism of infection. A.* Fecal-oral B. Transmissible C. Aerogenic D. Vertical E. Artificial	
3653 In the village reported cases of dysentery. What is the possible mechanism of transmission from patients to health? A. * Fecal-oral B. Transmissible C. Aerogenic D.Vertical E. Artificial	
1600	

Doctor appointed dysenteric phage for persons contacting with the dysentery patient. What purpose appointed bacteriophage? A. * Prevention of dysentery B. Treatment of dysentery C. Isolation of pathogen D. Phagotyping E. Phagoindication	
1914 In the bacteriological laboratory at the study of dairy foods were identified causative agents of dysentery - S. flexneri. Bacteriologist needs to determine isolated pathogen's serovar. For what properties gets it? A. * By antigenic structure B. By biochemical properties C. By morphological properties D. By staining properties E. For biological properties	
2917 From patients with dysentery isolated pure culture of gram-negative non-motile bacilli; culture is not clumping by serum against Shigella flexnery. What conclusion should be drawn from these data? A. * It is necessary to test with sera against other Shigella species B. Isolated bacteria do not belong to Shigella C. It is necessary to identify specific antibodies D. It is necessary to investigate the biochemical properties of culture E. It is necessary to examine the sensitivity to antibiotics	
4026 In the bacteriological laboratory of the faeces of patients with acute dysentery, isolated a culture of Grigoriev-Shiga dysentery bacilli. What are the virulence factors distinguishing this type of Shigella from others? A. * Exotoxin B. Endotoxin C. Aggression enzymes D. Capsule E. Vi-antigen	
4122 There are cases of children dysentery in kindergarten. What diagnostic method of this disease is crucial? A.* Bacteriological B. Bacterioscopical C. Allergical D. Biological E. Clinical	

4375 Cultivating of urine from patient with pyelonephritis to the condensing water showed that agent gives the creeping growth, issues specific putrid smell. At microscopy revealed polymorphic motile gram-negative bacillus. Specify the alleged agent. A. * Proteus B. Enterococcus C. Mycobacteria D. Candida E. Staphylococcus	

Pseudomonas aeruginosa

77 At bacteriological study of material from the burn wound bacteria was isolated. These bacilli have rod-shape, Gram-negative, and form on MPA flat, slippery, greenish colony with a specific aromatic smell. For what of these microorganisms described the data are most characteristic? A. * P. aeruginosa B. E. coli C. Pr. mirabilis D. K. pneumonia E. V. cholerae	
4203 In the bacteriological laboratory microorganisms are isolated. Its capable of producing pigment pyocyanin. Which microbe is inherent in this property? A. * Pseudomonas aeruginosa B. Escherichia coli C. Bacillus subtilis D. Candida albikans E. Staphylococcus aureus	
3860 Bacteriological quality control of disinfection carried out in the pharmacy, found the motile Gram-negative rods, which form the capsule and the blue-green pigment. Specify the genus of alleged microorganism? A. * Pseudomonas B. Proteus C. Clostridium D. Shigella E. Vibrio	
1384	

The bandage on the patient's wound, after some time was dyed in blue-green color. The doctor says that it is the result of development in the wound of the microorganism, generating pigment pyocyanin, which was confirmed by laboratory studies. Of which genus is this agent? A. * Pseudomonas B. Proteus C. Staphylococcus D. Vibrio E. Klebsiella	

Vibrio cholera

92 At bacteriological study feces of a patient with diarrhea was isolated pure culture of rod-shaped, slightly curved microorganisms, which in smear remind schools of fish. When cultured in alkaline peptone water after six hours' film with a blue tint is formed. For what pathogen such inherent properties? A. * Vibrio cholerae B. Escherichia coli C. Salmonella spp. D. Spirochaetes E. Mycobacterium spp.	
4256 Microscopic examination of the film, which appeared in peptone water after 6 hours after cultivating feces, is founded curved motile Gram-negative rods. Spores and capsules do not form. What are microorganisms? A. * Vibrios B. Spirochaetes C. Clostridias D. Corynebacterias E. Spirillas	
375 When the bacteriological diagnosis of cholera test-material is cultivated in elective media. Which of these medium is not an elective for Vibrio cholerae? A. * Bile broth B. Alkaline MPA C. Alkaline peptone water D. Medium of Monsur E. TCBS-agar	
849 From patients with cholera feces were taken. In what liquid medium is recommended to cultivate this material to	

isolating the Vibrio cholerae? A. * 1% alkaline peptone water B. Meat-peptone broth C. 1% glucose broth D. 10% serum broth E. 10% bile broth	
1884 From the patient's excreta isolated curved motile rods. Spores and capsules do not form. In the alkaline agar isolating microbe grows as transparent colonies; in alkaline peptone water (after 6 hours growth) - as gentle blue film. What agent can be suspected? A. * Vibrio cholerae B. Salmonella spp. C. Shigella spp. D. Escherichia coli E. Proteus spp.	
2038 In smears of patient's feces were revealed curved Gram-negative bacteria. What properties should be study with a microscope to getting more information about the identified microbes? A. * Mobility B. The presence of spores C. The presence of capsules D. The presence of cysts E. The presence of volutin granules	
2741 From a patient with a diagnosis of "cholera" was isolated pure culture of moving vibrios. To which group of flagellated bacteria is this pathogen? A. *Monotrihous B. Lofotrihous C. Amfitrihious D. Peritrihious	
3042 Among tourists returning from India, started in acute watery diarrhea. Excrements have the form of rice broth. When bacterioscopical study were revealed Gram-negative, moving vibrios. What is a preliminary diagnosis? A. * Cholera B. Dysentery C. Typhoid fever D. Plague E. Hepatitis	
1392 In six hours after cultivating of patient's feces in alkaline	

peptone medium was reported growth pathogen like bluish film. In the smears curved rods are founded. Indicate the probable causative agent: A. * Vibrio cholerae B. Mycobacterium tuberculosis C. Pseudomonas aeruginosa D. Salmonella typhi E. Escherichia coli	
4021 From vomit of patient with cholera Gram-negative, motile vibrios were isolated. What diagnostic products used to determine the serovar of isolated culture? A.* Type Serum of Inaba and Ogawa B. Type bacteriophages C. Polyvalent phage D. Fluorescent serum E. Normal serum	

Bacterial pathogens responsible for zoonosis (Yersinia pestis, Bacillus anthracis, Francisella tularensis, Brucella spp.)

78 In the microscopy of smear prepared from patient's enlarged inguinal lymph node and stained by Leffler (methylene blue) are identified ovoid bacteria with intensely colored at the poles and placed randomly. Which of these microorganisms are inherent in these properties? A. * Y. pestis B. N. gonorrhoeae C. T. pallidum D. L. interrogans E. M. tuberculosis	
95 The patient complains of severe headache, chest pain, and high fever. In his sputum revealed ovoid rods, stained with methylene blue bipolar. For what microorganism is characteristic of this microscopy? A. * Yersinia pestis B. Mycobacterium tuberculosis C. Corynebacterium diphtheriae D. Bacillus anthracis E. Influenza virus	
4385 From the patient with high fever, chills, cough, sputum were isolated gram-negative ovoid bacilli with bipolar staining and delicate capsule. What is the diagnosis can be expected?	

A. * Plague B. Tuberculosis C. Leptospirosis D. Brucellosis E. Toxoplasmosis	
2600 In the epidemiology of some diseases are important vectors - fleas. Choose disease, that spread by fleas: A. * Plague B. Anthrax C. Tularemia D. Relapsing fever E. Leptospirosis	
1379 For the treatment of severe forms of the plague doctor has ordered bacterial drug that can cause lysis of the causative agent of plague. Which group of drugs it belongs? A. *Bacteriophages B. Antibiotics C. Eubiotics D. Sulfonamide E. Nitrofurans	
4383 The milkmaid complains of locomotor defeat, visual disturbances, of nervous system. To confirm the diagnosis was assigned serological examination - Wright test and Byurne skin-allergic test. What is preliminary diagnosis? A. * Brucellosis B. Tularemia C. Anthrax D. Rheumatism E. Leptospirosis	
2559 For diagnosis of brucellosis using serological method. Choose from the above test, which is most frequently used for this purpose. A. * Wright test B. Wassermann test C. Ascoli test D. Widal test E. Bordet-Zhangu test	
1394 There is a man with a diagnosis of polyarthritis in the therapeutic department. A man is shepherd. Following the laboratory diagnosis was changed to "brucelosis". Results of a serological reaction allowed changing the diagnosis? A.* Wright Agglutination test	

B. Ascoli Termoprecipitation test C. Wasserman Complement fixation test D. ELISA E. Hemagglutination test	
80 In the diagnosis of brucellosis an important place belong to allergotest. What is the name of the author? A. * Byurne B. Tsuverkalov C. Pirque D. Dick E. Shik	
177 Workers of livestock farms had specific prevention of brucellosis. Which vaccines are used for this purpose? A. * Lived B. Recombinant C. Chemical D. Toxoid E. Synthetic	
170 Patients with clinically diagnosed "Tularemia" for closer definition injected tulyarin subcutaneously. What method of examination used a doctor? A. * Allergical B. Microscopical C. Serological D. Biological E. Microbiological	
4020 In the study of smear from carbuncle’s discharge were determined large, spore-forming, Gram-positive bacilli with chopped ends, arranged in a chain. What is the presumptive diagnosis? A. * Anthrax B. Plague C. Tularemia D. Candidiasis E. Pyoderma	
769 Anthrax is a particularly dangerous infection. What virulence factors are inherent in this pathogen? A. * Capsules and exotoxin B. Fibrinolizin and endotoxin C. Bacteriocins and spores D. Plasmocoagulase and flagella E. Agglutinin and volutin granules	

3644 In the cellular structure of the vaccine and clinical strains of anthrax bacilli are differences. Indicate which the cell structure is caused of the bacterial virulence? A. * Capsule B. Flagella C. Spore D. Cell wall E. Cytoplasmic membrane	
3124 During the inspection patient's carbuncle doctor noted: in the center of carbuncle is a black eschar, edema of subcutaneous tissue, the touch - painlessly. At microscopy revealed gram-positive streptobacilli, forming a capsule. Indicate the most likely disease. A. * Anthrax B. Plague C. Tetanus D.Cholera E. Syphilis	
1386 In smear were revealed large rods with chopped ends, arranged in a chain. After cultivating in nutrient medium with the addition of penicillin, the pathogens acquired a spherical shape and resemble a pearl necklace. For what disease characterized by this phenomenon? A. * Anthrax B. Plague C. Cholera D. Candidiasis E. Tularemia	
4030 Worker plant for processing raw hides was raised a preliminary diagnosis of anthrax. What test is used to determine whether contamination of hides and skins? A. * Termoprecipitation test B. Agglutination test C. Complement fixation test D. Neutralization test E. Test of indirect hemagglutination	
3213 The animal died of suspected anthrax. What kind of reaction must be placed to confirm the diagnosis? A. * Ascoli test B. Wright test C. Wassermann test	

D. Widal test E. Heddlson test	
4214 In the farmer, after contact with skin and flesh of dead cows carbuncles are emerged on the skin. Carbuncles are with blackening in the center. The farmer has flushing, fever. After hospitalization was diagnosed - anthrax. What medicine is needed to treat the infection? A.* Antrax anti-globulin B. STI vaccine C. BCG vaccine D. Tulyarin E. Antraxin	
4255 On the territory of the settlement reported cases of anthrax.Which drug is used with the specific prevention of the population against anthrax in epidemiological indicators? A. * Lived vaccine B. Killed vaccine C. Chemical vaccine D. Bacteriophage E. Toxoid	

Bacterial pathogens responsible for respiratory infections (Mycobacterium spp., Corynebacterium diphtheria, Bordetella pertussis)

4024 The laboratory received sputum from patients with suspected tuberculosis. Which method of staining is used to identify the causative agent? A. * Ziehl-Nielsen B. Ozheshko C. Burri-Gins D. Romanovsky-Giemsa E. Gram	
845 Laboratory diagnosis of TB involves the use of microscopic method. What method of staining of agents used to identify the causative agent of tuberculosis? A. * Ziehl-Nielsen B. Gram C. Burri-Gins D. Romanovsky-Giemsa E. Neysser	
3466 The patient with suspected pulmonary tuberculosis should	

undertake a study of sputum. Which method of staining of microscopic preparations used for detection of Mycobacterium tuberculosis? A. * Ziehl-Nielsen B. Gram C. Burri-Gins D Romanovsky-Giemsa E. Neysser	
1602 In the laboratory was deliver to investigate the sputum of the patient, in which the physician suspected pulmonary tuberculosis. To detect the pathogen bacteriologist used a special method of staining. Give it: A * Ziehl-Nielsen B Ozheshko C Burri -Gins D Zdrodovsky E Gram	
4241 Of the sputum of a patient with suspected pulmonary tuberculosis was made smear for bacterioscopic study. Which method of staining should I use? A. * Ziehl-Nielsen B. Gram C. Ozheshko D. Neysser E. Romanovsky-Giemsa	
2345 To identify the causative agent of tuberculosis in sputum using method of staining: A. * Ziehl-Neelsen B. Gram C. Leffler D. Burri-Gins E. Ozheshko	
2606 When studying sputum of a patient with suspected tuberculosis in the sample revealed long, thin, slightly curved rods, stained in ruby color, located in a harness. Which method of staining was applied? A. * Ziehl-Nielsen B. Leffler C. Gram D. Ozheshko E. Romanovsky-Giemsa	
2046 The patient treated for a long time about the chronic	

pneumonia. A microscopic examination of sputum smears stained by Ziehl-Nielsen, revealed pink rods, located singly, sometimes in small clusters. The diagnosis changed to another. Which? A.* Tuberculosis of the lungs B. Candidiasis of the lungs C. Pneumonic plague D. Influenza pneumonia E. Staphylococcal pneumonia	
217 For bacteriological studies in the laboratory delivered sputum of TB patients. What it should be processed before cultivating on nutritional medium? A.* By sulfuric acid B. By antibiotics C. By warming up at t 65 ^{0}C D. By chloramine E. By phenol	
761 To isolate the pathogen from sputum of tuberculosis patients is important the correct choice of nutrient medium. What is the optimal medium for the cultivation of Mycobacterium tuberculosis? A.* Lowenstein-Jensen B. Kitta-Tarotstsi C. Wilson-Blair D. Bordeaux-Zhangu E. Chistovich	
4202 Laboratory diagnosis of tuberculosis includes bacterio-logical method. What nutrient medium must be use for initial cultivating of sputum? A. * Levinstein-Jensen B. Chistovich C. Endo D.Saburo E. Ploskirev	
4373 From the patient with a diagnosis of "meningitis" material cultivated on Lowenstein-Jensen medium for isolating of pathogen. Which agent will be allocated? A. * Mycobacterium tuberculosis B. Meningococcus C. Staphylococcus D. Rickettsiae E. Viruses	
2959	

At microscopic examination of smears from bronchial secretions after staining by Ziehl-Nielsen acid-fast ruby-red bacilli are identified. Which medicine should be administered to treating of the patient in case of confirmation of the diagnosis of tuberculosis? A. * Rifampicin B. Cephalosporins C. Tetracycline D. Penicillin E. Sulfonamide	
3787 Pharmacy of pulmonology center received a number of antimicrobial agents. Which one is used to treat tuberculosis? A. * Rifampicin B. Ampicillin C. Erythromycin D. Tetracycline E. Levomicin	
1887 In the family was identified the patient with open tuberculosis. After his exclusion to all family members need to appoint agents for chemoprophylaxis of tuberculosis. Which drug can nominate? A. * Ftivazid B. Interferon C. Tetracycline D. Sulfadimezin E. Remantadin	
341 Patient diagnosed with pulmonary tuberculosis. Which product you want to assign to etiotropic treatment of this disease? A. * Isoniazid B. Penicillin C. Erythromycin D. Tetracycline E. Metronidazole	
796 At the pharmaceutical company tubercle bacillus grown on liquid nutrient medium, then grown culture is filtered and the liquid is concentrated by evaporation to 1 / 10 original volume. For what will use the biological product in such a way? A.* For allergic skin test B. For serodiagnosis of tuberculosis C. For specific prevention of tuberculosis D. For specific treatment of tuberculosis	

E. For isolation of tubercle bacilli from material	
784 A group of pupils had Mantoux test with tuberculin. What does this medicine? A. * Protein fraction of the pathogen's broth culture B. Lived attenuated strain of bacteria C. Sonicated bacteria of the virulent strain D. The pathogen's exotoxin diluted 1:40 E. Lipid components of the cell wall of mycobacteria	
2043 To diagnose of TB infection among pupils must be allergic intracutaneous test Mantoux. Which drug should be available for a test? A. * Tuberculin B. BCG vaccine C. STI vaccine D. Antraxin E. Brucellin	
1378 Drugstore of regional tuberculosis hospital received a number of therapeutic and diagnostic products, including tuberculin. For what purpose will be used this drug? A. * Allergic diagnosis of tuberculosis B. Specific prevention of tuberculosis C. Specific therapy of tuberculosis D. Phagotyping of mycobacteria E. Serological diagnosis of tuberculosis	
2052 Every 48 hours after Mantoux test in child in the site of injection of tuberculin was observed skin redness. What does the result of the test? A.* A child is not immunized against tuberculosis B. A child has an active tuberculosis C. A child is vaccinated against tuberculosis D. A child is a carrier of the causative agent of tuberculosis E. A child infected with TB pathogen	
3210 In one group of kindergarten before revaccination against tuberculosis, children had Mantoux test. Which drug for this use? A. * Tuberculin B. Tulyarin C. ADT D. ADTP E. BCG vaccine	

1604 In the maternity hospital newborns had vaccine to prevent tuberculosis. What vaccine was used? A. * BCG B. Mantoux C. ADTP D. Toxoid E. Sabin	
1395 To prevent the mass of tuberculosis for formation active herd immunity in the population according to the calendar of mandatory vaccinations using drugs: A. * BCG B. ADTP C. TABTe D. Rifampicin E. Ethambutol	
785 To carry out preventive vaccination children's clinic received a number of vaccines. Which of them forms non-sterile immunity? A. * BCG B. ADTP C. DT D. Lived measles E. Subunit influenza	
2607 In nursing home infants at 5-7 days after birth, vaccinated against tuberculosis. Which drug is used for specific prevention of tuberculosis? A. * BCG vaccine B. ADTP vaccine C. Vaccine STI D. Vaccine EV E. Vaccine TABTe	
4377 To form an artificial active immunity against tuberculosis in the school carried out routine vaccination. What vaccine was used for this? A. * Lived B. Inactivated C. Toxoid D. Recombinant E. Subunit	
91 From a child 7 years old with suspected diphtheria was take material of throat and stain smears by method	

Neysser. Microorganisms are yellow rods with dark blue bulges at the ends and in the form of outstretched fingers. What is a structural component of corynebacteria cells detected? A. * Volutin granules B. Capsule C. Spore D. Flagella E. Nucleus	
4023 In smear from a patient with diphtheria revealed yellow rods with dark blue clavate thickenings at the ends. What is the structural element of the microbial cells has been found? A.* Volutin granules B. Spores C. Capsules D. Fat droplets E. Flagella	
2040 Otolaryngologist at the examination the patient noted the hyperemia, a significant swelling of the tonsils with a gray raid on them. At microscopy of the raid were identified Gram-positive rods, located at an angle to each other. What disease can be expected? A. * Diphtheria B. Scarlet fever C. Angina D. Meningococcal nasopharyngitis E. Mumps	
2604 In sick child with suspected diphtheria material taken from the mucous membrane of the throat, stained and examined it. At microscopy revealed yellow-brown rods with blue-black with bulges at the ends. Which method is used in staining? A. * Neysser B. Leffler C. Gram D. Ozheshko E. Ziehl-Nielsen	
3214 In smear from raid of the tonsils after staining by Neysser method found thin rods that are yellow with dark-blue granules at the ends, arranged in a Roman numeral V. What is the presumptive diagnosis? A. * Diphtheria B. Measles C. Tuberculosis	

D. Pertussis E. Influenza	
4216 From a child with diphtheria doctor took swabs from throat. What elective media should be used to isolate a pure culture of the causative agent of diphtheria? A. * Blood-tellurite agar B. Yolk-salt agar C. Endo agar D. Bismuth-sulfite agar E. Saburo agar	
3649 Corynebacterium diphtheriae produce a powerful exotoxin. Which of the following properties are characteristic of bacterial exotoxin? A. * Stimulates the production of antitoxin B. With formalin is not neutralized C. Extracted from the microbial cells after her death D. LPS nature E. Stimulates the production of antibacterial antibodies	
3465 In the children's infectious diseases hospital received girl with suspected diphtheria. Which method is used to determine the microbiological diagnosis of toxigenic strains of the pathogen? A. * Bacteriological B. Microscopical C. Serological D. Allergical E. Biological	
2560 There is 10-years child with diphtheria of throat in the infectious disease hospital. From sick child was isolate toxigenic strains of Corynebacterium diphtheriae. How can set up a toxigenicity of isolating microorganism? A. * In the gel precipitation test B. In the agglutination test C. In the complement fixation test D. In the indirect hemagglutination test E. In flocculation test	
4217 From the patient with suspected diphtheria a pathogen is isolated. What method can confirm toxigenicity corynebacteria culture? A. * Precipitation test in agar B. Neutralization test in mice C. Agglutination test D. Complement fixation test	

E. Immunofluorescence test	
2044 In clinically healthy schoolchildren's throat Corynebacterium diphtheria is isolated. Which method is used to determine its toxigenic properties? A. * Precipitation test in agar B. Agglutination test C. Precipitation test D. Hemagglutination inhibition test E. Hemadsorption	
2605 A 12-years child with a diagnosis of diphtheria throat is coming to hospital. Clinical diagnosis is confirmed by bacteriological studies: isolated bacillus, toxigenic strains. What drugs are used for specific treatment for this disease? A. * Antitoxic serum B. Sulfonamides C. Toxoid D. Detoxification solutions E. Antibiotics	
2557 For the treatment of infectious diseases using antitoxic serum. Specify the disease, the main method of treatment which is the use of antitoxic serum. A. * Diphtheria B. Esherichiasis C. Nocardiasis D. Listeriasis E. Influenza	
4387 In kindergarten were carried out routine vaccinations against diphtheria. What method can verify the formation postvaccinal immunity? A. * Serological B. Bacteriological C. Biological D. Bacterioscopical	
1606 In accordance with a calendar of planned vaccination of children should be vaccinated against diphtheria. Which drug should be used for this purpose? A. *ADTP B. BCG C. PASA D. HINA E. TABTe	

2045 At bacteriological investigation of sputum of child with severe cough and high temperature on casein-agar were grew coal shiny black colonies resembling droplets of mercury. Short gram-negative rods are revealed in the microscope. What microorganism are isolated from the sputum? A. * Bordetella pertussis B. Haemophylus influenzae C. Corynebacterium dyphtheriae D. Klebsiella pneumoniae E. Streptococcus pyogenes	
378 8-years child were ill with whooping cough. Do I need to assign him to prevent a recurrence of a drug and what is it? A. * I do not appoint B. ADTP C. Antitoxic serum D. Human immunoglobulin E. Normal serum	
2608 Mother of sick child called to children's clinic. Hers child has "barking" cough. Doctor diagnosis of whooping cough. What material for research is necessary to take a child to isolate the causative agent and confirm the diagnosis? A. * Swabs of the throat rear wall B. Blood C. Pus D. Serum E. Vomit	
301 Mother of sick child called to children's clinic. Hers child has "barking" cough. Doctor diagnosis of whooping cough. What material for research is necessary to take a child to confirm the diagnosis? A.* Mucus from the throat rear wall B. Blood C. Pus D. Feces E. Vomit	

Pathogenic Clostridium

3088 Spore-forming bacteria can be preserved in the soil long-term. These are Clostridium of tetanus, botulism, gas anaerobic infection. Specify the path of getting these	

microorganisms in the soil? A. * By feces B. By urine C. By water D. By industrial waste E. By sputum	
2034 The patient has necrotizing abscess of the leg. The doctor suspect patient's "gas gangrene". At microscopy in purulent discharge from the wound were revealed gram-positive rods. In what nutrient media should be cultivate the material for further bacteriological studies and confirm the diagnosis? A. * Kitta-Tarots medium B. Endo agar C. Levin agar D. Meat-peptone agar E. Milk-salt agar	
346 The patient has anaerobic infection (tetanus). In what medium should be cultivate material for study? A. * Kitta-Tarots B. Endo C. Casein-charcoal D. Ploskirev E. Lowenstein-Jensen	
1603 In smears prepared from the contents of the wound, bacteriologist discovered Gram-positive rods with terminal located of round spore. Enter presumptive diagnosis? A. * Tetanus B. Botulism C. Diphtheria D. Meningitis E. Tuberculosis	
2041 A man with extensive traumatic wound shin got drug for the prevention of tetanus. A few minutes after the injection he had pain behind the breastbone, difficulty breathing, tachycardia, blood pressure dropped sharply. On what product you have this reaction? A.* Tetanus antitoxic serum B. Tetanus toxoid C. Antitetanus immunoglobulin D. Antibiotic E. ADTP vaccine	
2603	

For treating a patient with tetanus most effective drug is: A. * Tetanus antitoxic serum B. Chloral-hydrate C. Metronidazole D. Penicillin E. Tetanus toxoid	
4285 Men injured in the garden spade, held emergency prevention of tetanus. Which drug was used? A. * Antitoxic serum B. Antibacterial serum C. Toxoid D. ADTP vaccine E. Antibiotics	
2914 What a purpose to applying the drug, obtained by immunization of horses with toxoid that obtained from tetanus exotoxin? A. * For the treatment of tetanus B. For the active immunization against tetanus C. For diagnosis of tetanus D. For vaccination against tetanus E. As a component of diphtheria-tetanus vaccine	
2561 Clostridium botulinum causes severe food-toxic. Specify characteristic morphological feature of the causative agent of botulism. A. * Gram-positive rods with subterminal spore B. Gram-positive rods, do not form spore C. Gram-positive rods with terminal spore D. Gram-positive rods with a central spore	
2058 The patient with severe neurological disorders was rushed to the infectious diseases hospital. 4 hours ago he ate canned fish. From canned food filtrate is prepared, then it was intraperitoneal inject to guinea pig. After 3 hours' animals died. What disease can be suspected? A. * Botulism B. Brucellosis C. Typhoid fever D. Ku-fever E. Salmonellosis	
2609 On the basis of what clinical symptoms suggest botulism in humans? A. * Violation of swallowing, diplopia, dysphonia B. Increase of temperature, vomiting and diarrhea C. Decrease of temperature, loss of consciousness	

D. Dry mouth, throat congestion E. Roseolous rash on the body	
3091 After eating of meat homemade canned the patient had symptoms: blurred vision, difficulty swallowing act. The causative agent of what disease can cause these symptoms? A. * Botulism B. Dysentery C. Salmonellosis D. Esherihiosis E. Cholera	
172 To determine the type of botulinum toxin is carried out test of toxin neutralization with toxoid in mice. What do you call this method of research? A. * Biological B. Microscopical C. Allergical D. Microbiological E. Serological	
4211 After eating of meat homemade canned patient with visual impairments, speech, swallowing and digestion came to the infectious disease clinic. The physician suspected botulism. What method can confirm the presence of botulinum toxin in food? A.* Neutralization test B. Precipitation test in gel C. Complement fixation test D. Agglutination test E. Hemagglutination test	
1605 In the bacteriological laboratory for the study dried fish homemade is delivered. What reaction should be used for the detection of botulinum toxin in this product? A. * Biological neutralization test B. Indirect agglutination test C. Complement fixation test D. Hemagglutination ingibition test E. Ring-precipitation test	
2558 Choose among the listed drug that is used for specific treatment Foodborne diseases caused by botulinum toxin. A. * Antitoxic botulinum antisera B. Botulinum toxoid C. ADTP vaccine D. BCG vaccine	

E. Antibiotics	
3200 A patient with a diagnosis of botulism came in the infectious diseases hospital. Which drug should be applied for treatment in the first place? A. * Antitoxic serum B. Toxoid C. Antibiotics D. Sulfonamide E. Nitrofuran	
3789 Visitors of the wedding were delivered in intensive care department of the hospital. They had clinical symptoms of botulism. Which drug is an urgent need to inject specific treatment for this disease? A. * Antitoxic serum B. Human immunoglobulin C. Adsorbed toxoid D.Complex of antibiotics	
4031 Family was delivered in the infectious department of the hospital. They had preliminary diagnosis of botulism. Which drug should be injected for emergency prevention and treatment of this disease? A. * Antitoxic polyvalent serum B. Politoxoid C. Antibiotics D.Sulfonamide E. Nitrofurans	
2970 For specific treatment for botulism patient was applied antibotulinum heterologous antisera. What is the mechanism of action of this medicine? A. * Binds and neutralizes toxins of ABE serovars pathogen B. Binds and neutralizes the causative agent C. Forms an active antitoxic immunity D. Forms an active antimicrobial immunity E. Forms a passive antimicrobial immunity	

Pathogenic Spirochetes

4556 At bacterioscopical study from material of the chancre were revealed mobile, thin, long, convoluted microorganisms with uniform 8-12 tendrils. These	

properties are: A. * Treponema B. Borrelia C. Leptospira D. Vibrios E. Campylobacter	
846 The patient with ulcers on the genitals appealed to dermatovenerologic clinic. Diagnosed - syphilis. Name the causative agent of this disease. A. * Treponema pallidum B. Borrelia recurrentis C. Mycobacterium tuberculosis D. Corynebacterium diphtheriae E. Salmonella typhi	
3464 The patient with ulcers on the genitals appealed to dermatovenerologic clinic. Diagnosed - syphilis. Name the genera of causative agent. A. * Treponema B. Sarcina C. Leptospira D. Candida E. Neysseria	
2346 On the oral mucosa of the patient an ulcer is revealed. This ulcer is with smooth sealed edges. In smear of the ulcer with dark-field microscopy were revealed thin with a few curls, moving bacteria. The same bacteria are in punctate from the cervical lymph node also. What disease can be suspected? A. * Syphilis B. Anthrax C. Thrush D. Measles E. Diphtheria	
549 For microscopic confirmation of diagnosis of primary syphilis, from the patient was taken fluids ulcers. What type of microscopy is used to detect the pathogen? A. * Dark-field B. Light C. Phase-contrast D. Electron E. Anoptral	
2740 In laboratory diagnosis of syphilis became necessary to	

examine the nature and degree of mobility of the parasite. What type of microscope used for this purpose in the bacteriological laboratory? A. * Dark-field B. Light C. Fluorescent D. Electron E. Phase-contrast	
4382 Basis method for diagnosis of syphilis is serological. Which of these reactions is used to diagnose this disease? A. * Wasserman B. Wright C. Vidal D. Heddelson E. Gruber	
548 The patient with a preliminary diagnosis of "syphilis" had serological examination - Wasserman test. What type of reactions it belongs? A. * Complement fixation test B. Immobilization test C. Immunofluorescence test D. Precipitation test E. Agglutination test	
2919 Pharmacy provides medication hospital STI clinics. What preparations need to ensure department for treatment of syphilis? A. * Penicillin and organic arsenic B. Streptomycin and sulfas C.Tetracycline and metranidazol D. Levomicetin and antiprotozoal drugs E. Nitrofurans and toxoids	
4379 From the patient with fever, headache and jaundice microorganisms are founded in the blood. These are subtle, with many curls, the ends of their thickened and like letters C and S. Pathogens are pink after staining with Romanovsky-Giemsa method. What are microorganisms? A.* Leptospira B. Borrelia C. Treponema D. Rickettsia E. Chlamydia	
4219 A man from the countryside was brought in the hospital. A	

man is with a high fever, severe muscle pain, splenomegaly, and facial flushing. In the history he swam in the local pond, where cattle walked. What microorganisms could be the cause of this disease? A. * Leptospira B. Salmonella C. Vibrio cholerae D. Shigella dysenteriae E. Klebsiella	
377 Members of the society of hunters and fishermen will get specific prevention of leptospirosis. Which drug is used for this purpose? A. * Killed vaccine B. Lived vaccine C. Chemical vaccine D. Antitoxic serum E. Associated vaccine	
162 In the blood of patient with fever, headache and muscle pains microorganisms are revealed. It is large, convoluted, has 3-8 irregular curls. Pathogens are blue-violet after staining with Romanovsky-Giemsa method. What are microorganisms? A. * Borrelia B. Leptospira C. Rickettsia D.Chlamydia E. Treponema	

Pathogenic Protozoa

789 A man is 50 years. In the three days he has bouts of fever with temperature up to 39-40 ^{0}C, chills, drenching sweat, pain in the eyes, nausea. His liver and spleen were enlarged, anemia develops. In smears from the patient's blood stained by Romanovsky-Giemsa, were revealed round-shaped bacteria that have a blue cytoplasm and a ruby-red core. What is genus of this causative agent? A. * Plasmodium B. Entamoeba C. Toxoplasma D. Trichomonas E. Leishmania	
415 From one of the members of the expedition, who worked	

in the endemic focus of malaria, after 8 months was diagnosis of malaria. What is the possible mechanism of infection? A. * Transmissible B. Air-dust C. Fecal-oral D.Contact E. Airborne	
2744 In the infectious diseases clinic patient with a diagnosis of malaria admitted. What is the mechanism of transmission being typical for this disease? A. * Transmissible B. Fecal-oral C. Airborne D. Contact E. Indirect contact	
3788 In the infectious diseases hospital soldier with suspected of malaria admitted for treatment. What method can confirm the diagnosis of the disease? A. * Smear of blood B. Blood cultures on special media C. Detection of specific antibodies D. Bacteriological method E. Blood cultures in sugar broth	
163 Basis method for diagnosis of congenital toxoplasmosis is serological. Which of these reactions is used to diagnose this disease? A. * Complement fixation test B. Agglutination test C. Precipitation test D. Neutralization test E. Bacteriolysis test	
788 When conducting routine clinical examination, one of the students who arrived from North Africa, cysts of Entamoeba histolytica were found in the feces. What does the discovery of this form of parasite? A. * The period of remission B. The incubation period of amoebic dysentery C. Intestinal amebiasis in the active stage D. Extraintestinal amoebiasis E. Intestinal microbiocenose within normal limits	
2037 In smears of foam-purulent vaginal discharge of 40-year-	

old woman after the stain with method Romanovsky-Giemsa physician identified a microorganism of the class “Flagellate”. Which organism is most likely identified the doctor? A. * Trihomonas vaginaslis B. Leishmania donovani C. Trypanosoma gambiense D. Trihomonas hominis E. Lamblia intestinalis	
3790 13- year-old child complained of poor appetite, pain in the right hypochondria. In smears of duodenal contents were revealed large pear-shaped cells with two nuclei. Which microorganism is identified? A. * Lamblia B. Trichomonada C. Amoeba D. Trypanosome E. Toxoplasma	

Chlamydia spp.

4201 Ophthalmologists took conjunctival swab of a patient for microscopic examination. In the cytoplasm of epithelial cells after staining with Romanovsky-Giemsa were revealed violet coccoid microorganisms. Indicate the most likely causative agent, which is characterized by the intracellular location? A. * Chlamydia B. Staphylococci C. Mycoplasmas D. Streptococci E. Tetracocci	
2056 Patient is with urogenital chlamydial infection. What group of antibiotics you want to assign to treatment? A. * Group of tetracycline B. Group cephalosporin C. Group of aminoglycoside D. Group of penicillin E. Antifungal antibiotics	
2036 Which drug should be instilled into the eyes of newborns to prevent infection chlamydial conjunctivitis? A. * Tetracycline B. Penicillin C. Sulgin	

D. Streptomycin E. Silver nitrate	

Candida albicans

2057 At microscopy of vaginal discharge were revealed round or oval Gram-positive cells, which reproduce by budding and form a pseudo-mycelium. What drugs should recommend for treatment in case of confirmation of the diagnosis of candidiasis? A. * Clotrimazole, nystatin B. Penicillin, streptomycin C. Sulgin, ftalazol D. Tetracycline, oleandomicin E. Erythromycin, monomicin	
2962 After long treatment with antibiotics in the patient's smears of vaginal secretion was revealed oval budding cells with well-differentiated nucleus. What drugs should be applied for treatment in case of confirmation of the diagnosis of candidiasis? A. * Antifungal B. Antibacterial C. Antichlamidial D. Antiviral E. Antiprotozoal	

Viral pathogens

219 At children's first year of life must carry out specific prevention of measles. What type of vaccine used for this purpose? A. *Lived B. Inactivated C. Chemical D. Toxoid E. Genetic engineering	
428 A three-year-old child is with diagnosed measles. What you want to assign a specific drug for treatment? A. * Immunoglobulin B. Tetracycline C. Toxoid D. Acyclovir E. Bacteriophage	
3176	

In the kindergarten the child got the measles. What medication can prevent this disease from contact persons? A. * Measles immune gamma globulin B. Measles vaccine C. Immune modulators D. Antibiotics E. Sulfonamides	
79 There is outbreak of measles in children's institution. What is the specific emergency prevention of this infection for contact, non-vaccinated children? A.* Injection of measles gamma globulin B. Injection of lived measles vaccine C. Injection ADTP D. Medical supervision for children E. Isolation and treatment of patients	
786 The child is 1.5 years. He doesn't receive routine vaccinations. But he had contact with the patient. As a prophylactic measure he gets donor immunoglobulin. Prevention of what disease is this? A. * Measles B. Tuberculosis C. Candidiasis D. Scarlatina E. Adenovirus infection	
1304 With the case of measles has become necessary to undertake preventive measures in the student group. Which drug should be used to create artificial passive immunity? A. * Normal human immunoglobulin B. Lived bacteria C. Killed bacteria D. ADPT vaccine E. Measles antisera	
164 After the newborn screening physician diagnosed congenital rubella. Name the mechanism of transmission of this disease. A. * Vertical B. Parenteral C. Transmissible D. Fecal-oral E. Airborne	
446 Which vaccines should be used for the prevention of viral infection that can cause congenital malformations in the	

fetus if the sick pregnant? A. * Anti rubella B. Anti influenza C. Anti mumps D. Anti polio E. Anti rabies	
2762 In the virology laboratory received wipes from the nasopharynx of the patient. Which of the substrates should be used to highlight the flu virus from swabs the patient? A. * Chicken embryos B. Meat-peptone agar C. Meat-peptone broth D. Endo medium E. Saburo medium	
3855 There is production of inactivated influenza vaccine at the plant of biological preparations. For this influenza virus is cultivated in the chorion-alantois cavity of chicken embryos. Which method is most appropriate to use for indication of the virus in chorion-alantois fluid? A. * Hemagglutination test B. Electron microscopy C. ELISA D. Immunofluorescence test E. Polymerase chain reaction	
1886 During the influenza epidemic at patient with fever and a runny nose was diagnosed “influenza”. What chemotherapy can be recommended for treatment of a patient? A. * Remantadin B. Penicillin C. Streptocide D. Streptomycin E. Novarsenol	
4525 In the city is influenza epidemic. Which drug listed below can be recommended for people to nonspecific prevention of the disease? A. * Leukocyte interferon B. Flu-vaccine C. Antibiotic D. Influenza immunoglobulin E. Flu-antiserum	
2032 In the city is influenza epidemic. What medication can be	

recommended for people to nonsepecific prevention of the disease? A. * Leukocyte interferon B. Influenza vaccine C. Penicillin D. Influenza bacteriophage E. Flu-antiserum	
2870 The pharmaceutical firm reported about the drug, which contains the outer envelope antigens of influenza viruses. With a purpose to applying this medicine? A. * For active immunization against influenza B. For inactivation of influenza viruses C. To form an artificial passive immunity D. For treatment of influenza in the early stages E. For quick diagnosis of influenza	
538 Throughout the world, progressively increasing incidence of HIV infection, however, has not yet created a vaccine for its prevention, is largely determined by the high variability of the virus. With what viral macromolecules is mainly related to the high level of variability of the virus? A. * Outer envelope glycoproteins B. Bilipid layer of outer envelope C. Central proteins of the virus D. The molecules of viral RNA E. Viral enzyme revertase	
535 People of various professions, including medical staff are in groups of occupational risk of HIV infection. Specify the most probable mechanism of HIV infection. A. * Parenteral B. Fecal-oral C. Airborne D. Air-dust E. Transmissible	
373 In the study of the immune status of patients with symptoms of immune deficiency reveals a sharp decrease in the number of T-helper cells with relatively normal levels of T-killer cells and T-suppressors. For what viral disease characterized by such a result? A. * HIV B. Influenza C. Measles D.Adenovirus infection E. Rabies	

537 It is known that HIV infection occurring severe immunological disorders in the body, leading to AIDS (Acquired Immunodeficiency Syndrome). Specify the human cells most sensitive to HIV infection. A. * T-helper B. Hepatocytes C. T-suppressor D. Endothelial cells E. B-lymphocytes	
2035 Quite often the cause of acquired immunodeficiency is an infectious organism's defeat, in which the pathogens directly multiply in cells of the immune system and destroy them. Choose among these are diseases in which this phenomenon occurs. A. * Infectious mononucleosis, HIV-infection B. Tuberculosis, mycobacteriosis C. Polio, hepatitis A D. Dysentery, cholera E. Ku-fever, typhus	
2347 Everything listed below is typical of HIV infection, except: A. * The main route of transmission – indirect contact B. Is caused by HIV-1 and HIV-2 C. AIDs virus destroys the T-helper lymphocytes D. Specific prophylaxis has not been developed E. Screening tests is to detect antibodies in ELISA	
3040 The patient M., 25 years old, diagnosed with HIV infection. What HIV-related illness may develop in his last stage? A. * Return all the answers B. Secondary mycobacteriosis C. Kaposi’s sarcoma D. PCP E. Candidiasis	
1608 In an anonymous office conducted a survey on AIDS patients. What is the clinical material used for the diagnosis of this disease? A. * Blood B. Urine C. Sperm D. Saliva E. Feces	
2565	

The results of what test are crucial to confirm the diagnosis of HIV infection? A.* ELISA B. Agglutination test C. Precipitation test D. Complement fixation test E. Radioimmunoassay	
3302 A young man who had sexual contact with a homosexual turned in the center of an anonymous survey of HIV infection. Specify main method of laboratory diagnosis of this infection? A. * ELISA B. Radioimmunoassay C. Passive hemagglutination test D. Coagglutination test E. Immunofluorescence test	
2920 For the mass the serological diagnosis of HIV infection is enzyme immunoassay applied in solid-phase. What is a standard component of the reaction must be adsorbed on the solid phase test system? A. * HIV antigens B. Monoclonal antibodies against HIV C. Enzimmarked antibodies against HIV D. Specific immunoglobulins E. Substrates for the determination of enzyme activity	
2612 Which method should be used to confirm a positive result for AIDS? A. * Immunoblotting B. Electrophoresis of blood proteins in polyacrylamide gel C. Immunofluorescence test D. Radioimmunoassay E. Coagulation test	
2972 In the study serum by ELISA analysis revealed the presence of antibodies to HIV. Which of virological diagnostic methods should be used to confirm the diagnosis of HIV? A.* Immunoblotting B. Biological C. Bacteriological D. Virological E. Immunofluorescence	
3220 An examination of the patient on AIDS received two	

positive effects linked immunosorbent assay (ELISA). Which method should be used to exclude false-positive EIAs? A. * Immunoblotting B. Fluorescence microscopy C. Radioimmunoassay D. Immunofluorescence E. Molecular hybridization	
2613 What viral family does contain RNA-dependent DNA polymerase as part of the virion: A. * Retroviridae B. Adenoviridae C. Orthomyxoviridae D. Rhabdoviridae E. Reoviridae	
534 A group of young people with symptoms of hepatitis got in the infectious diseases hospital. It is found that the infection occurred as a result of non-sterile injections of drugs. From the blood serum of patients selected three different antigen of hepatitis B virus. Specify which antigen will be contained in all samples of blood. A. * NBsAg B. NBeAg C. NBcAg D. NBcAg and NBeAg E. NBcAg and NBsAg	
2254 During the surgery, the patient held a blood transfusion. At the antigens of what pathogen is necessary to check this blood? A. * Hepatitis B virus B. Hepatitis A virus C. Rabies virus D. Herpes virus E. Variola virus	
536 It is known that hepatitis B - a systemic disease caused by hepatitis B virus and is characterized by a primary lesion of the liver. Of the following list, select drugs for causal treatment of this infection. A. *Acyclovir B. Penicillin C. Tetracycline D. Sulfonamide E. Fluoroquinolones	

539 At the laboratory diagnosis of viral hepatitis B laboratory assistant broken test tube with the patient's blood and cut the skin of the hand with piece of glass. What should be injecting a drug for emergency prevention of hepatitis B? A. * Specific immunoglobulin B. Killed vaccine C. Recombinant vaccine D. Chemical vaccine E. Lived vaccine	
1609 A patient must be proactive prevention of hepatitis B. What is the vaccine used for this purpose in our country? A. * Recombinant B. Toxoid C. Lived D. Killed E. Chemical	
4283 For the prevention of hepatitis B recombinant vaccine is used. This vaccine consists of yeasts with integrated into the genome of gene of viral antigen. Against what antigen is an immune response in the body? A. * HBs Ag B. HBc Ag C. HBe Ag D. HBs Ag and HBe Ag E. HBe Ag and HBc Ag	
4258 Genes of hepatitis B virus, which encode the synthesis of HBs Ag, integrated in yeast. This product is used for production of the drug for the specific prevention of the disease. What is this medicine? A. * Recombinant vaccine B. Associated vaccine C. Eubiotic D. Chemical vaccine E. Autovaccine	
4372 Workers of station transfusions were immunized with the recombinant vaccine. Indicate for the prevention of what disease was vaccination. A. * Hepatitis B B. Syphilis C. Leptospirosis D. AIDS E. Influenza	
167	

Workers of blood transfusion stations vaccinated genetic engineering vaccine. Against what viral disease, it is used? A. * Hepatitis B B. Influenza C. Measles D. Rubella E. AIDS	
767 In the school cases of hepatitis A are registered. Which drug should be applied to specific prevention for children who have been in contact with a sick classmate? A. * Immunoglobulin B. Lived vaccine C. Inactivated vaccine D. Interferon E. Ribavirin	
2974 It is known that patients with hepatitis A to the symptoms appearance looked after 3-year-old child. Which medication you need to inject to prevent the infection in the child? A. * Gamma globulin B. Interferon C. Remantadin D. Penicillin E. Vaccine	
2253 Which vaccines are used for the prevention of polio in our country? A. * Lived B. Inactivated C. Chemical D. Toxoid E. Genetic engineering	
161 To create an artificial active immunity baby got lived oral vaccine of the Sabin strains. For the prevention of what disease using this vaccine? A. * Polio B. Tuberculosis C. Measles D. Rubella E. Mumps	
1309 A low level of immune status is a contraindication for vaccination against poliomyelitis. After the injection of what drug for the prevention of poliomyelitis may develop	

paralytic form of the disease? A. * Vaccine Seybin B. Salk vaccine C. ADTP vaccine D. BCG vaccine E. Vaccine TABTe	
2042 People bitten by an unknown dog asked in the surgical room. Large lacerations were localized in the facial area. What medical and preventive care should be given to prevent rabies? A. * Start immunization with rabies vaccine B. Order a combined antibiotic therapy C. Urgent inject the DPT vaccine D. Hospitalize patients and keep under medical observation E. Urgent inject normal gamma-globulin	
2614 For what disease the presence in the cells of calf Babes-Negri is characterized? A. * Rabies B. Chickenpox C. Adenovirus infection D. Mumps E. Infectious mononucleosis	
168 In the cytoplasm of affected nerve cells can be detected inclusions (calf Babes-Negri). They are identified by microscope with a special staining product. Which staining method is used for this purpose? A. * Romanovsky-Giemsa B. Gram C. Zdrodovsky D. Neysser E. Burri-Gins	