

**Public Health of Ukraine
Higher State Educational Establishment of Ukraine
“Ukrainian Medical Stomatological Academy”
Microbiology, Virology and Immunology Department**

SPECIAL MICROBIOLOGY AND VIROLOGY KROK -1 TESTS

*Collection of tasks
fo test examination preparation in
Microbiology, Virology and Immunology*

ТЕСТИ «КРОК-1» З СПЕЦІАЛЬНОЇ МІКРОБІОЛОГІЇ ТА ВІРУСОЛОГІЇ

*Збірник завдань з мікробіології, вірусології та імунології
для підготовки до тестового іспиту*

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INSTRUCTION:

Each of the numbered questions or uncompleted assertions is accompanied by the variants of answers or completed assertion. Choose one answer (the completed assertion), that is the most correct in this case.

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Collection contains to the test of task, which are intended for the current, intermediate and eventual control of knowledge of dental and medical faculty students.

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ІНСТРУКЦІЯ:

Кожне із пронумерованих питань або незавершених тверджень супроводжується варіантами відповідей або завершеним ствердженням. Виберіть одну відповідь (завершене ствердження), що є найбільш правильною у даному випадку.

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ЗАТВЕРДЖЕНО протоколом №7 ЦМК УМСА від 27 квітня 2011 р.

Збірник містить тестові завдання, які призначені для поточного, проміжного і кінцевого контролю знань студентів стоматологічного факультету.

Microbiological diagnostics of staphylococcal infection

1. In surgical department arise a suspicion about hospital staphylococcal infection presence, seat of disease is a medical personal. Which medium is necessary to inoculate with material from nasopharynx of department personal for defining a carrier of pathogenic staphylococcus?

- A. Endo's medium
- B. Yolk-salt agar
- C. Meat-and-peptone broth
- D. Russell's medium
- E. Blood agar

2. Child with a diagnosis "staphylococcal sepsis" was been hospitalized. On what of medium is necessary to inoculate a patient's blood for purpose of agent revealing?

- A. Ploskirev's medium
- B. Meat-and-peptone agar
- C. Sugar-and-peptone broth
- D. Buchin's medium
- E. Yolk-saline agar

3. A staphylococcal infection is educed as complication at 36 yeared man, who has a chronic active hepatitis, S.aureus is very sensitive to tetracycline, penicillin and streptomycin. What drug is necessary to prescribe for treatment of this patient?

- A. Streptomycin
- B. Penicillin
- C. Tetracycline
- D. Complexly using of all drugs

of

this list

- E. Any drug of this list

4. Some children, who have eat from the milk-kitchen, has been revealed with illness, which characterized by a nausea, vomiting, rise in temperature.

Gr "+" cocci, which formed grape like clusters, were revealed in milk products; but it was not possible to allocate an agent of infection from patient's organism. The most probable cause of disease is an accumulation in products:

- A. α -toxin
- B. Toxic protein A
- C. Endotoxin
- D. Enterotoxin
- E. Erythrogenic toxin

5. Some children, who have eat from the milk-kitchen, has been revealed with illness, which characterized by a nausea, vomiting, rise in temperature. Gr "+" cocci, which formed grape like clusters, were revealed in milk products; but it was not possible to allocate an agent of infection from patient's organism. What method gives the most probable result for definition an etiology of disease?

- A. Biological test
- B. Neutralization test on animals
- C. Precipitation test in test tube
- D. Precipitation test in gel
- E. PHAT with antibodies diagnosticum

6. 26 years old man, at third day after appendectomy, has a hyperemia and infiltration on a stitch course, pus is allocated from a wound at pressing. Gr "+" cocci formed an abnormality colonies were revealed in pus. What drug is necessary to use for a local specific therapy?

- A. Antistaphylococcal plasma
- B. Antibiotic to which the infection agent is sensitive
- C. Staphylococcal antiphagin
- D. Fluid staphylococcal bacteriophage
- E. Staphylococcal autovaccine

7. Golden staphylococcus was revealed on mucous of reproductive organs of young woman with 8 monthed pregnancy. What drug is most necessary to use for specific prevention of possible postnatal complications?

A. Local using of antiseptic drugs

B. Staphylococcal autovaccine

C. Staphylococcal anatoxin

D. Staphylococcal bacteriophage

E. Antibiotic to which the infection agent is most sensitive

8. Gr “+” cocci located in grumps, gived a positive plasmacoagulase test, fermented mannitol in anaerobic conditions and had a lecithinase activity were revealed at time of sets of stomatological instruments sterility control. What microorganism was revealed in this case?

A. *S. pyogenes*

B. *S. epidermidis*

C. *S. saprophyticus*

D. *S. aureus*

E. *Corynebacterium xerosis*

9. Enteritis-ill child’s excrements were emulsifying in physiological solution, and drop of emulsion was inoculated on elective media: 10% milk-saline or yolk-saline agar. What microorganisms are provided to allocate?

A. *Klebsiella*

B. Coliform bacilli

C. Streptococci

D. Staphylococci

E. Enterococci

10. Microorganisms, located as a cluster of grapes were revealed in a pus from a furuncle. What organisms were revealed?

A. Micrococci

B. Diplococci

C. Staphylococci

D. Streptococci

E. Tetracocci

11. There are causes of purulent postoperative staphylococcal nature complications have become frequent in surgical hospital. How it is possible to define a source of staphylococcal infection in hospital?

A. Defining of phage varies

B. Defining of haemotoxin

C. Defining of aggression enzyme

D. Defining of biovars

E. Defining of antibiotic sensitivity

12. Food toxic infection eruption was registered in a city which has arising after taking of cream pastry. A pathogenic microorganism was revealed in the rests. What microorganism is most possibly can cause this toxic infection?

A. *E. coli*

B. *C. perfringens*

C. *S. aureus*

D. *S. typhimurium*

E. *S. enteritidis*

13. There are almost all children had gastroenteritis signs in a few hours after cheese curd intake in the kindergarten. At time of bacteriological examination of vomiting masses and wastes of the cheese curd the golden staphylococcus was revealed. How is expedient to continue a research for a specification of diagnosis?

A. Make a lysotyping of allocated

strains

B. Define an ability of strains to produce toxins

C. Take a research of nutrition unit

equipment

D. Define a presence of antibodies at

ill children

E. Take allergic test

14. The microbiological research in neonatal department of maternity home was made in view of suspecting on a hospital infection. The golden staphylococcus was revealed at some children and on some comfort items. What properties of allocated cultures give a chance to characterize their origin from the general source?

- A. Antibioticogram
- B. Chromogenesis
- C. Antigen structure
- D. Biochemical activity
- E. Phage type

15. The doctor detected Gr “+” cocci, what locate in bunch-shaped clumps at time of microscopy of investigated material, taken from patient with acute purulent periostitis. What microorganisms have this morphological signs?

- A. Staphylococci
- B. Sarcines
- C. Tetracocci
- D. Candida
- E. Streptococci

16. Gr “+” cocci which have a round form, form S-form colonies with golden pigment on a dense nutrient medium, produce a lecithinase, plasmocoagulase, haemolysin and ferment a mannitol in anaerobic condition were revealed at patient with purulent phlegmona of maxillofacial region. What kind of microorganism is causes suppuration?

- A. *S. aureus*
- B. *S. pyogenes*
- C. *S. mutans*
- D. *S. epidermidis*
- E. *S. sanguis*

17. Gr “+” round microorganisms which have a lecithinase activity,

coagulate rabbit’s plasma and split a mannitol in anaerobic condition were revealed from purulent exudates of patient with odontogenous phlegmona. What of next microorganisms can cause a purulent complication?

- A. *S. epidermidis*
- B. *S. aureus*
- C. *S. pyogenes*
- D. *S. viridans*
- E. *S. mutans*

18. The children disease characterized by acute beginning, nausea, vomiting, and diarrhea has developed after cheese intake in kindergarten. Gr “+” microorganisms, which located in bunch-shaped clumps were revealed at microscopy of dab, made of cheese and vomiting masses. What will be your following actions for etiology definition of this food intoxication eruption?

- A. In addition to apply a bacteriological method of diagnostics
- B. To make the conclusion that it is staphylococcus
- C. In addition to take an allergic test
- D. In addition to define antibodies in blood serum
- E. In addition to define a phagotype of staphylococcus

19. The staphylococcus differs from a strain, which defined at patients, but has an R-plasmid was revealed from nasopharynx of nurse at time of hospital infection eruption. What sing can take a hospital strain as a result of conjugation?

- A. Antibiotic resistance
- B. Enterotoxin producing

- C. Fecundity
 D. Staphylokinases synthesis
 E. Formation of colonies
20. *S. aureus* culture was revealed as a result of bacteriological examination of sour cream material. How to prove what the isolated colony of *S. aureus* is an agent of food poisoning which arisen at sour cream consumers group?
- A. Detection of enterotoxin
 B. Detection of plasmocoagulase activity
 C. Detection of haemotoxin
 D. Detection of saccharolytic properties
 E. Detection of lecithinase activity
21. The examination of bacteria carriers has been made for estimation of sanitary state in maternity hospital. What microorganisms are pathogenic for human?
- A. Pathogenic staphylococcus
 B. Micrococcus
 C. Sarcines
 D. Lactic-acid bacteria
 E. Bifidumbacteria
22. An agent, which gives round-form yellow colonies on blood agar was isolated from patient with skin pustules. These colonies have a medium size and surrounded by active area. Gr “+” cocci located by ungeometrical clumps were revealed in dabs from colonies. This culture is oxydase-positive, catalase-positive, ferment mannitol and synthesize plasmocoagulase. What pathogenic agent is revealed?
- A. *Staphylococcus aureus*
 B. *Staphylococcus saprophyticus*
 C. *Staphylococcus epidermidis*
 D. *Staphylococcus agalactiae*
 E. *Staphylococcus pyogenes*
23. Choose microorganism caused purulent diseases of oral cavity mucous membrane:
- A. *Borrelia*, *Treponema*
 B. *Corynebacteria*, *Fusobacteria*
 C. *Bacteroides*, *Enterobacteria*
 D. *Candida* and *Aspergillus*
 E. *Staphylococcus*, *Streptococcus*
24. There is a frequency of infection-inflammatory diseases caused by *Staphylococcus aureus* was increased in maternity hospital. What of epidemiological method is using for detection of source of this infection?
- A. Defining of phage vary
 B. Defining of serovary
 C. Defining of colicinotype
 D. Defining of antibioticogramm
 E. Defining of biovary
25. Gr “+” cocci located by clusters in preparation were isolated from patient with osteomyelitis of maxilla. They ferment a mannitol to acid in anaerobic conditions, coagulate a plasma of rabbit. It is necessary to classify this pure culture.
- A. *Staphylococcus aureus*
 B. *Staphylococcus saprophyticus*
 C. *Streptococcus pyogenes*
 D. *Streptococcus mutans*
 E. *Staphylococcus epidermidis*
26. The sanitary-microbiological examination of air in medical establishment must be done every 4 months. Which of next microorganisms is classified to sanitary-representative air microorganisms of enclosed space?
- A. *C. perfringens*
 B. *E. coli*
 C. *E. faecalis*
 D. *P. aureuginosa*
 E. *S. aureus*
27. It's necessary to find a source of infection in surgical department of

stomatologic clinic in view of postoperative purulent complications cases, caused by golden staphylococcus. What examination is necessary to make among the personnel?

- A. Examination of dysbacteriosis
- B. Test of staphylococcal immunity intensity
- C. Inoculation of blood to a sterility
- D. Detection of carriage
- E. Examination of outwash of hands

28. Examination of a patient with pustular skin lesions allowed to isolate a causative agent that forms in the blood agar roundish yellow middle-sized colonies surrounded by haemolysis zone. Smears from the colonies contain irregular-shaped clusters of gram-positive cocci. The culture is oxidase- and catalase-positive, ferments mannitol and synthesizes plasmocoagulase. What causative agent was isolated?

- A. Staphylococcus saprophyticus
- B. Streptococcus agalactiae
- C. Streptococcus pyogenes
- D. Staphylococcus epidermidis
- E. Staphylococcus aureus

29. In the surgical department of a hospital there was an outbreak of hospital infection that showed itself in often postoperative wound abscesses. Bacteriological examination of pus revealed aurococcus. What examination shall be conducted to find out the source of this causative agent among the department personnel?

- A. Biochemical identification
- B. Microscopical examination

- C. Serological identification
- D. Estimation of antibiotic susceptibility
- E. Phagotyping

30. A 65-year-old man has purulent abscess on his neck. Analyses revealed a culture of gram-positive cocci with plasmocoagulase activity. This culture relates most likely to:

- A. Staphylococcus saprophyticus
- B. Streptococcus agalactiae
- C. Streptococcus pyogenes
- D. Staphylococcus epidermidis
- E. Staphylococcus aureus

Microbiological diagnostics of streptococcal infection

31. Confinement to bed patient has a rise in temperature of body, cough occurrence with a lot of sputum secretion, pain in the chest. Gr“+” cocci, located in pairs were revealed in the sputum. What microorganism is the most probable agent of infection?

- A. Legionella pneumophilla
- B. Staphylococcus aureus
- C. Klebsiella pneumonia
- D. Mycoplasma pneumonia
- E. Streptococcus pneumoniae

32. The infection of gallbladder was caused by organisms, what have an oval form, is located in pairs or short chains. Proceeding from results of serological tests, these organisms were identified as “D” group streptococci. How they are called?

- A. Enterococci
- B. Green streptococci
- C. Aerococci
- D. β -hemolytic streptococci
- E. Pneumococci

33. Dick's toxin was intravenously injected to 20 children, who had contacts with scarlet fever patient in the kindergarten. Three children have tumescence and reddening in a place of injection; other children haven't it. Estimate the results of reaction.

A. Children with positive Dick's reaction are the vectors of hemolytic streptococcus

B. Children with positive Dick's reaction have an allergy to toxin of hemolytic streptococcus

C. Children with positive Dick's reaction have carried a scarlet fever in past

D. Children with positive Dick's reaction have no antibodies to toxin of hemolytic streptococcus

E. At children with positive Dick's reaction will occurrence symptoms of scarlet fever in few days

34. After carried scarlet fever of upper respiratory tracts, the child have a pain in joints during long time, which amplified in autumn. What microorganism is the most probable agent of infection?

A. *S. aureus*

B. *S. pyogenes*

C. *C. diphtheriae*

D. *B. pertussis*

E. Flu virus

35. Doctor has suspected a scarlet fever at 2 year old child with catarrhal appearance and eruption on skin. A little dose of serum to erythrotoxic toxin of streptococcus was inoculated intradermal and eruption was disappeared in the injection place. What means results of reaction?

A. Final diagnosis is confirmed

B. Child has a high sensitivity to

erythrotoxic toxin

C. Disease is not caused by hemolytic streptococcus

D. The serum must be injected intravenously

E. Child's immunity system is very poor

36. The culture of coccal bacteria was revealed from a nasopharynx of a boy with chronic tonsillitis. They are located by chains in the smear. What microorganisms it is can be?

A. *Vibrio*

B. *Staphylococcus*

C. *Escherichia*

D. *Clostridia*

E. *Streptococcus*

37. Blood from a patient with suspicions of a sepsis was inoculated on a sugar broth. The long chain-located Gr⁺⁺ cocci was detecting in the smear, what taken from sediment. The small, transparent, round colonies with active hemolytic area were grown on a blood agar. What organisms is presence in patient's blood?

A. *Streptococcus*

B. *Micrococcus*

C. *Staphylococcus*

D. *Tetracoccus*

E. *Sarcina*

38. The short chain-located, round microorganisms were revealed in a smear of tonsils mucous. What microorganisms were revealed?

A. *Staphylococcus*

B. *Streptococcus*

C. *Micrococcus*

D. *Diplococcus*

E. *Tetracoccus*

39. A rheumatic heart's disease has developed at 12 years old boy after carried angina. Every next streptococcal infection caused a

deterioration of patient's condition. What drug is rationality to use for complications prevention?

- A. Autovaccine
- B. Streptococcal anatoxin
- C. Streptococcal bacteriophage
- D. Donor's γ -globulin
- E. Penicillin

40. Streptococcus of "A" group was isolated from the patient with glomerulonephritis. What of streptococcal antigens provides a typical specificity and virulence?

- A. Vi-antigen
- B. M-protein
- C. T-antigen
- D. P-antigen
- E. OF-antigen

41. The pathological material (a smear of tonsils) was taken from 7 years old child who has an angina, and inoculated on blood agar. The medium became transparent around colonies of streptococcus in next day. The presence what of pathology factor of an infectious agent was revealed?

- A. Hemolysin
- B. Endotoxin
- C. Neuraminidase
- D. β -lactamase
- E. Leukocidin

42. Gr "+" oval located in pairs microorganisms were revealed at microscopic diagnostics of patient's sputum. What microorganisms were revealed in sputum more probably?

- A. Streptococcus pneumoniae
- B. Neisseria meningitidis
- C. Klebsiella pneumoniae
- D. Staphylococcus aureus
- E. Neisseria gonorrhoeae

43. The physician has suspected a progress of disease at 8 years old boy, who often have an angina caused by Streptococcus. What of microbiological

method is need to use for diagnosis confirmation?

- A. Serological
- B. Bacterioscopic
- C. Bacteriological
- D. Allergic
- E. Biological

44. At examination of 2 years old boy, physician has see an eruption on neck and upper part of chest, and also tongue erythema ("crimson tongue") and give a diagnosis "scarlet fever". What organism is an infection agent of this disease?

- A. Streptococcus pyogenes
- B. Escherichia coli
- C. Neisseria gonorrhoeae
- D. Mycobacteria tuberculosis
- E. Corynebacterium diphtheriae

45. Gr "+" cocci, which have a little oblong form, located in pairs or short chains, produce a capsule, cause an α -hemolysis in blood agar were revealed from oral cavity of clinical-healthy 25 years old man. A vector what of disease he is?

- A. Streptococcus salivarius
- B. Streptococcus pyogenes
- C. Streptococcus pneumoniae
- D. Streptococcus faecalis
- E. Peptostreptococcus

46. Gr "+" prolonged diplococci with pointed opposite ends were revealed in sputum of patient with suspicion on pneumonia. What microorganisms were revealed in smear?

- A. Staphylococcus aureus
- B. Streptococcus pneumoniae
- C. Klebsiella pneumoniae
- D. Neisseria meningitidis
- E. Neisseria gonorrhoeae

47. At microscopy of sputum from patient with pneumonia, a lot of Gr "+" lancet shaped diplococci, which are surrounded by capsule, were revealed.

Which microorganisms were revealed in smear?

- A. Klebsiella pneumoniae
- B. Streptococcus pneumoniae
- C. Chlamidia pneumoniae
- D. Staphylococcus aureus
- E. Escherichia coli

48. In lumps of pus, taken from sputum of patient with clinical diagnosis "lung fever" the blue-violet lancet shaped diplococci, which surrounded by capsule, were revealed. The bacteriologist's conclusion was "S. pneumonia is in the sputum". What method was used for confirmation of clinical diagnosis?

- A. Microscopical
- B. Bacteriological
- C. Serological
- D. Express-method
- E. Biological

49. Gr "+" cocci, which can produce a capsule were revealed from sputum of patient with suspicion on lung fever. The microorganisms fermented an inulin and had been lysed by bile at identification of pure culture. What organisms were isolated from this patient?

- A. Staphylococcus aureus
- B. Streptococcus haemolyticus
- C. Streptococcus pneumoniae
- D. Streptococcus viridans
- E. Streptococcus pyogenes

50. Blood of a patient with presumable sepsis was inoculated into sugar broth. There appeared bottom sediment. Repeated inoculation into blood agar caused growth of small transparent round colonies surrounded by hemolysis zone. Examination of a smear from the sediment revealed gram-positive cocci in form of long chains. What microorganisms are present in blood of this patient?

- A. Streptococci
- B. Micrococci
- C. Staphylococci
- D. Tetracocci
- E. Sarcina

51. A 7 year old child often suffers from streptococcal angina. Doctor suspected development of rheumatism and administered serological examination. The provisional diagnosis will be most probably confirmed by presence of antibodies to the following streptococcal antigen:

- A. O-streptolysin
- B. C-carbohydrate
- C. M-protein
- D. Erythrogenic toxin
- E. Capsular polysaccharide

52. During examination of a patient a dentist revealed a lot of "white spots" - zones of enamel demineralization. What microorganisms take part in the development of this process?

- A. Streptococcus mutans
- B. Streptococcus salivarius
- C. Streptococcus pyogenes
- D. Veillonella parvula
- E. Staphylococcus epidermidis

53. There was an episode of the hospital infection caused by S.pyogenes in the surgical department. What media can be used for pathogenic Streptococci isolation?

- A. Endo's media
- B. Yolk-salt agar
- C. MPB
- D. Ressel's media
- E. Bloody agar

54. The child with a diagnosis "Streptococcal sepsis" was hospitalized. What media can be used for pathogenic Streptococci isolation from blood?

- A. Yolk-salt agar
- B. Endo's media

- C. MPB
- D. Bloody agar
- E. Saccharine broth

55. A doctor has suspected scarlet fever of a 5-year-old child with catarrh and skin rash. A small quantity of serum against streptococci erythrotoxic toxin has been injected intracutaneously. In the place of injection the rash disappeared. What do reaction results indicate?

- A. The whole dose of serum can be injected intravenously.
- B. The child is hypersensitive to erythrotoxic toxin.
- C. The disease has been caused by a nonhemolytic streptococcus.
- D. The clinical diagnosis has proved to be true.
- E. Immune system of the child is considerably impaired.

56. There are cases of purulent postoperative complications of the streptococcal nature which have become frequent in a surgical hospital. How to determine a source of a streptococcal infection in a hospital?

- A. Determination of phagovaries
- B. Determination of serovaries
- C. Determination of enzymes
- D. Determination of biovaries
- E. Determination of sensitiveness to antibiotics

Microbiological diagnostics of meningococcal infection

57. Two children from kindergarten are in hospital with a diagnosis - meningococcal meningitis. It is necessary to conduct examination of

other children and personnel of the kindergarten for the revealing of the effaced forms of meningococcal disease and meningococcal carriers. What kind of diagnostic should be used?

- A. Bacterioscopy of cerebrospinal fluid
- B. Revealing of meningococcal antigen in cerebrospinal fluid
- C. Serum research
- D. Cultural research of nasopharyngeal mucus
- E. Skin allergic test

58. The 5-years old child recovers after acute meningococcal meningitis. When will it be able to visit kindergarten again?

- A. After complete clinical convalescence
- B. When serum reactions will become negative
- C. If all children in a group will receive a vaccination against meningitis
- D. If meningococci will not be revealed in cerebrospinal fluid
- E. If the result of bacteriological examination of nasopharyngeal mucus is negative

59. There was examination of children and personnel with the purpose of revealing of meningococcal carriers in a kindergarten. Choose the method of microbiological research:

- A. Bacteriological
- B. Allergological
- C. Bacterioscopic
- D. Biological
- E. Serological

60. A bacteriologist at research of nasopharyngeal mucus adhered to the set rule of maintenance of aetiological agent in material. At bacterioscopic

research the presence of gram-negative cocci which remind coffee grains and located by pairs and tetrads was determined. Name an aetiological agent which was revealed by bacteriologist.

- A. Staphylococcus aureus
- B. Neisseria meningitidis
- C. Neisseria gonorrhoeae
- D. Moraxella lacunata
- E. Acinetobacter calcoaceticus

61. Gr- diplococci, having the same form as coffee grains were revealed during bacterioscopical research of nasopharyngeal mucus of 2,5-years old child with nasopharyngitis. What organs of child most probably will be affected if these microorganisms will get to blood?

- A. Meninges
- B. Mitral valves
- C. Renal glomerules
- D. Urogenital tract
- E. Lymphatic nodes

62. From a child with cerebrospinal meningitis a turbid cerebrospinal fluid which contains plenty of leucocytes is received. What serum reaction does it cost to take advantage of for express-diagnostic of disease?

- A. Precipitation reaction
- B. Agglutination reaction
- C. Complement binding assay
- D. Hemagglutination reaction
- E. Neutralization reaction

63. A 5-years old patient complains of great headache and vomiting. Objectively: rigidity of the occipital muscles, continual vomiting, nausea, herpetic rash on face, fever. What pathological material is needed to use for bacteriological confirmation of the preliminary diagnosis - cerebrospinal meningitis?

A. Puncture of cerebrospinal fluid, which flows out force-feed and has an unpleasant smell

B. Isolating of urinoculture of Neisseria meningitidis from excrements

C. Isolating of Neisseria meningitidis from sputum

D. Research of vomiting masses

E. Isolating of Neisseria meningitidis from the mucus membrane of the urogenital system

64. A doctor diagnosed "meningococcal nasopharyngitis" to the child with nasopharyngitis. What method of laboratory diagnostics is the best for confirmation of diagnosis?

- A. Allergological
- B. Biological
- C. Serological
- D. Microscopical
- E. Bacteriological

65. The pure culture of gram-negative diplococci was isolated from the child, which visited kindergarten where a case of meningococcal infection took place. Which facts do testify that this microorganism is Neisseria meningitidis?

- A. Does not grow at 30⁰C on the serum agar
- B. Grows at 37⁰C on the serum agar
- C. Creates pigment
- D. Grows on MPA
- E. Ferments saccharose

66. The sick child's diagnosis was "epidemic cerebrospinal meningitis" on the basis of the conducted inspection and using of microbiological examination. What microorganism caused this disease?

- A. Neisseria gonorrhoeae
- B. Staphylococcus aureus

- C. *Streptococcus pyogenes*
 - D. *Neisseria meningitidis*
 - E. *Pseudomonas aeruginosa*
67. Gram-negative diplococci located in leucocytes were revealed in the smear made from cerebrospinal liquid of patient with festering meningitis. What does provide the incompleteness of *Neisseria meningitidis* phagocytosis?
- A. Capsule polysaccharide antigens
 - B. Capsule protein antigens
 - C. Peptidoglycans of the cell wall
 - D. Proteins of the cell wall
 - E. Enzymes of pathogenicity
68. There is a child with diagnosis "meningococcal nasopharyngitis" in the kindergarten. What vaccine can be used with the purpose of emergency specific prophylaxis of meningococcal infection for contact children?
- A. Anatoxin
 - B. Alive attenuated
 - C. From killed microorganisms
 - D. Chemical
 - E. Combined
69. The young woman's temperature suddenly rose to 39°C and great headache has appeared. At a review rigidity of the occipital muscles is determined. Spinal puncture was performed. There are huge amount of neutrophils and gram-negative diplococci stained by Gram in a smear from a cerebrospinal liquid. Which of the following bacteria could be the reason of this illness?
- A. *Staphylococcus aureus*
 - B. *Neisseria meningitidis*
 - C. *Haemophilus influenzae*
 - D. *Streptococcus pneumoniae*
 - E. *Pseudomonas aeruginosa*
70. The culture of meningococci was defined in the sediment of

cerebrospinal liquid of the patient with meningitis. What serum reaction must be used for determination of serum group?

- A. Agglutination reaction
 - B. Precipitation reaction
 - C. Indirect hemagglutination test
 - D. Complement binding assay
 - E. Immune sorbent assay
71. The bacteriologist revealed small located in pairs bean-shaped microorganisms in a smear from nasopharyngeal mucus. They became pink after Gram staining. Name these bacteria.
- A. *Streptococcus*
 - B. *Staphylococcus*
 - C. *Neisseria*
 - D. *Enterococcus*
 - E. *Micrococcus*
72. From a child with cerebrospinal meningitis there was obtained muddy spinal fluid with numerous leukocytes. Which test should be used for express-diagnostics of the disease?
- a. Complement fixation test.
 - B. Agglutination.
 - C. Immunofluorescence test.
 - D. Hemagglutination.
 - E. Neutralization.

Microbiological diagnostics of gonococcal infection

73. Bacteriological examination of purulent discharges from the urethra revealed gram-negative bacteria looking like coffee beans. They were localized in the leukocytes and could decompose glucose and maltose to acid. These are the causative agents of the following disease:
- A. Syphilis
 - B. Venereal lymphogranulomatosis

- C. Gonorrhoea
 - D. Chancroid
 - E. Trychomonadosis
74. A doctor-ophthalmologist examined a sick child with the phenomena of purulent cerato-conjunctivitis and supposed that it is a blenorhea. What methods of laboratory diagnostics can be used to confirm the diagnosis?
- A. Microscopic and bacteriological
 - B. Microscopic and biological
 - C. Microscopic and phage diagnostics
 - D. Bacteriological and biological
 - E. Phage diagnostics and allergic
75. Mucous consistency, transparent, even-edged protuberant colonies have grown on the special media after the pus from an urethra inoculation. Gram-negative, bean-shaped diplococci were found during the microscopy of preparations from these colonies. What kind of disease can they cause?
- A. Chlamidiosis
 - B. Gonorrhoea
 - C. Syphilis
 - D. Rabbit-fever
 - E. Melioidosis
76. A pus from a patient's urethra with suspicion of gonorrhea, that independently treated himself by penicillin, was taken for research. During the research the L-shaped gonococci were found. How does penicillin influence on gonococci?
- A. Destroys the synthesis of cellular wall
 - B. Destroys the synthesis of albumens
 - C. Destroys the synthesis of amino acid
 - D. Destroys the synthesis of cytoplasmic membrane
 - E. Destroys adhesines
77. During the bacteriological examination of the patient with suspicion on a gonorrhoea growth of microorganisms on special nutrient mediums was not revealed. What methods of diagnostics need to be used to confirm or exclude the preliminary diagnosis?
- A. Precipitation test
 - B. Use the biological method
 - C. To conduct microscopic research
 - D. Use IFT
 - E. Use CBT, allergic test
78. 28 year-old woman, who several months ago suffered from an acute gonorrhea and treated herself independently by penicillin, has an inflammation of appendages of uterus. The reaction Borde-Gangou is positive. What other organs and systems can be affected, if the course of medical treatment is not conducted?
- A. Joints
 - B. Liver
 - C. Vessels
 - D. Immune system
 - E. Central nervous system
79. Gramnegative bean-shaped diplococci inside and outside of leucocytes were detected on bacteriological examination of the purulent exudates from the cervix of the uterus. Name the causative agent of purulent inflammation of the cervix of the uterus.
- A. Chlamidia trachomatis
 - B. Neisseria gonorrhoeae
 - C. Haemophilus vaginalis
 - D. Trichomonas vaginalis
 - E. Calymmatobacterium granulomatis

80. During the bacteriological tests of the purulent secreta from urethra there were found bacteria, which according to Gram were negatively staining, looked like coffee beans. These bacteria were splitting glucose and maltose to acid, they were located inside the leucocytes. Name these microorganisms.

- A. Neisseria meningitides
- B. Neisseria gonorrhoeae
- C. Staphylococcus aureus
- D. Streptococcus pyogenes
- E. Enterococcus faecalis

81. A doctor made the diagnosis of gonorrhoea to the young man. It was known from the anamnesis that a patient had had gonorrhoea before and he had been treated completely. What type of infection can this new disease be attributed to?

- A. Superinfection
- B. Reinfection
- C. Secondary infection
- D. Relapse
- E. Autoinfection

82. A patient who came to the doctor because of his infertility was administered to make tests for toxoplasmosis and chronic gonorrhoea. Which reaction should be performed to reveal latent toxoplasmosis and chronic gonorrhoea in this patient?

- A. RIHA - Reverse indirect hemagglutination assay
- B. (R)CFT- Reiter's complement fixation test
- C. RDHA - Reverse direct hemagglutination assay
- D. Immunoblot analysis
- E. IFA - Immunofluorescence assay

83. The patient has addressed to the doctor-dermatologist. Gramnegative bean-shaped diplococci inside and

outside of leucocytes were detected on bacteriological examination of the purulent exudates from the cervix of the uterus. What results of process are observed in a preparation?

- A. Capsuleforming
- B. Metabolism
- C. Phagocytosis
- D. Sporeforming
- E. Malignisation

84. The sick woman has the clinical diagnosis "gonorrhoea". What from listed below researches can be applied to diagnosis acknowledgement?

- A. Microscopy of pathological material
- B. Infection of laboratory animals
- C. Test with phages
- D. Hemagglutination assay
- E. Reaction of immobilisation

85. A patient had delivered to the hospital with previous diagnosis "chronic gonorrhea". What type of the double-system serological reaction can be used for specific antibodies revealing in the serum?

- A. Agglutination test
- B. Neutralization test
- C. Complement's binding test
- D. Radio-immune analysis
- E. Immunoenzyme analysis

86. Gramnegative bin-shaped diplococcus inside and outside of leucocytes were detected on bacteriological examination of the purulent exudates from the cervix of the uterus. Name the causative agent of purulent inflammation of the cervix of the uterus.

- A. Calymmatobacterium granulomatis
- B. Chlamidia trachomatis
- C. Haemophilus vaginalis
- D. Trichomonas vaginalis

- E. *Neisseria gonorrhoeae*
87. Clinical diagnosis of a female patient was gonorrhoea. What examination method can be applied for confirmation of this diagnosis?
- Infection of laboratory animals
 - Microscopy of pathological material
 - Test with bacteriophage
 - Hemagglutination reaction
 - Immobilization reaction

Microbiological diagnostics of escherichiosis

88. *E. coli* culture of O-111 serotype was revealed in the excrements of a sick child, who had been given artificial food. Which diagnosis is correct?
- Coli-enteritis
 - Gastroenteritis
 - Cholera-like diseases
 - Food poisoning
 - Disentery-like diseases
89. During bacteria conjugation experiment the next strains were used: 1- streptomycin resistant auxotroph by lysine (F+) and 2 – streptomycin sensitive prototroph (F-). What media should be taken for isolation of recombinants?
- With lysine and streptomycin
 - With lysine without streptomycin
 - Without lysine, but with streptomycin
 - Without lysine and streptomycin
 - With factors F+ and F -
90. The causes of meningitis which were caused by a colon bacillus were noted in the department for new-borns. At the sanitary-bacteriological investigation of

rooms a colon bacillus was also revealed. What research should be made for identification of strains?

- Morphological properties studying
 - Cultural properties studying
 - Biochemical properties studying
 - Pathogenicity tests
 - Colicinotyping
91. 18 year old patient has general weakness, dizziness, nausea, vomiting, diarrhea (defecation up to a 10 times per a day). A doctor made a previous diagnosis "dysentery". However at the bacteriological research of vomiting masses and excrements *Shigella* was not found. On Endo's media the colonies of raspberry color with metallic glitter have grown. Which of diagnostic serums the positive reaction of agglutination of the isolated culture is the most possible?
- Polyvalent OK-serum
 - Salmonella O- serum
 - Salmonella N- serum
 - The O-cholera serum
 - Serum for *Yersinia*, serotype 03
92. The child with coli-enteritis has arrived to the infectious hospital. Colon bacilla was isolated from excrements. How to establish the bacilla accessory to pathogenic variants?
- In reaction of agglutination with O-serum
 - On the basis of biochemical properties
 - By phage typing
 - Microscopy of the stained smears
 - Due to growth on Endo media

93. 55 year old man was hospitalized to a surgical clinic with suspicion on a sepsis. What material must be taken from patient for research and what media it should be used?
- Blood, saccharine broth
 - Liquor, serum agar
 - Urine, meat peptone agar
 - Pus, yolk-salt agar
 - Lymphatic node puncture, cysteine agar
94. 7 year old boy has the cholerae-like disease (vomiting, diarrhoea). The same crimson colour colonies with metal shine have grown on Endo media after excrements inoculation. What microorganism is the most possible agent of disease?
- Yersinia enterocolitica*
 - Salmonella enteritidis*
 - Escherichia coli*
 - Shigella sonnei*
 - Vibrio*
95. On bacteriological examination of the defecation of a 4-months-old baby with the symptoms of acute bowel infection there were revealed red colonies spread in the large quantity in the Endo medium. What microorganism can it be?
- Escherichia*
 - Salmonella*
 - Staphylococcus*
 - Streptococcus*
 - Shigella*
96. The 4 year old child has arrived to the infectious clinic with the preliminary diagnosis "coli-enteritis". Symptoms of the general intoxication, vomiting and diarrhoea were observed. At bacteriological research of excrements the red colour colonies with metal shine have grown on Endo media. They were agglutinated by polyvalent OK-serum on slide. How to establish the pathogenicity of the colon bacilla?
- Due to antigenic properties.
 - Due to morphological properties.
 - Due to cultural properties.
 - Due to toxigenic properties.
 - Due to phage sensitiveness
97. The 6-month old child was entered to the infectious hospital with diagnosis "acute gastroenteritis". On what nutrient medium it is necessary to sow faeces of ill child?
- Moncur's medium
 - Blood agar
 - Endo medium
 - Ploskirev's medium
 - Serum agar
98. From the defecation of a 6-year-old ill child, who has artificial feeding, the intestinal bacillus with antigen structure 0-111 is excreted. What is the diagnosis?
- Food poisoning
 - Gastroenteritis
 - Cholera-like disease
 - Coli-enteritis
 - Disentery-like disease
99. Sanitary bacteriological research on water by the membrane filter method revealed two red colonies on a membrane filter (Endo agar) through which 500 ml of analyzed water were passed. Calculate the coli index and coli titer of the analyzed water:
- 2 and 500
 - 4 and 250
 - 250 and 4
 - 500 and 2
 - 250 and 2
100. As a result of durative antibiotic therapy a 37-year old patient developed intestinal dysbacteriosis. What type of drugs should be used in order to normalize intestinal microflora?

- A Vitamins
- B Sulfanilamides
- C Bacteriophages
- D Autovaccines
- E Eubiotics

101. Among junior children of an orphanage an outbreak of intestinal infection with signs of colienteritis was registered. In order to identify isolated causative agent it is necessary to:

- A Study antigenic properties of the causative agent
- B To determine sensitivity to antibiotics
- C To study sensitivity to bacteriophages
- D To study biochemical properties of the causative agent
- E To study virulence of the causative agent

Microbiological diagnostics of Salmonella infection

102. During the repeated Widal's agglutination test it was noticed that the ratio of antibody titers and O-antigens {S.typhi} in the patient's serum had increased from 1:100 to 1:400. How would you interpret these results?

- A The patient has typhoid fever
- B The patient is an acute carrier of typhoid microbes
- C The patient is a chronic carrier of typhoid microbes
- D The patient previously had typhoid fever
- E The patient was previously vaccinated against typhoid fever

103. A patient with complaints of 3-day-long fever, general weakness, loss of appetite came to visit the infectionist. The doctor suspected enteric fever. Which method of laboratory

diagnosis is the best to confirm the diagnosis?

- A Detachment of myeloculture
- B Detachment of blood culture
- C Detachment of feces culture
- D Detachment of urine culture
- E Detachment of pure culture

104. On bacteriological study of rinsing water of the patient with food poisoning, the pure bacterial culture was inoculated with the following properties: gram-negative motile bacillus in the Endo environment grows like achromic colony. Representative of what genus has caused the illness?

- A Yersinia
- B Shigella
- C Salmonella
- D Escherichia
- E Citrobacter

105. Effective diagnostics of the intestinal infections agents is based on antibodies to bacteria antigens revealing in indirect hemagglutination test. What standard preparation must be used in this reaction?

- A. Erythrocyte diagnosticum with adsorbed antigens of bacteria
- B. Antibodies against immunoglobulins of the main classes
- C. Monoclonal antibodies
- D. Mono-receptor diagnostic serums
- E. Ram's erythrocytes and hemolytic serum

106. Reaction of passive hemagglutination conducted with erythrocytic typhoid Vi-diagnosticum helped to reveal some antibodies in the dilution of the patient's serum at a ratio of 1:80 that exceeds the diagnostic titer. Such result witnesses of:

- A Being ill with acute typhoid fever
- B Being a potential carrier of typhoid bacilli

- C Typhoid fever recurrence
- D Incubation period of typhoid fever
- E Reconvalescence of a patient ill with typhoid fever

107. A 50-year-old patient with typhoid fever was treated with Levomycetin, the next day his condition became worse, temperature rised to 39,6⁰C. What caused worthening?

- A Reinfection
- B Allergic reaction
- C Irresponsiveness of an agent to the levomycetin
- D Secondary infection addition
- E The effect of endotoxin agent

108. The pathogen was isolated from patient's organism (patient suffers from acute gastroenteritis). It must be identified by antigen structure. What serologic reaction must be used?

- A. Reaction of agglutination
- B. Reaction of complement's binding
- C. Reaction of neutralization
- D. Reaction of precipitation
- E. Reaction of opsonization

109. For serologic diagnostics of infectious disease patient's blood was delivered for analysis. Blood sera was dissolved by isotonic solution. Patient's serum was used for reaction in dilutions from 1:10 to 1:1280 and erythrocytes, which were sensitized by microbe antigen. What serologic reaction was used?

- A. Direct agglutination
- B. Precipitation
- C. Passive hemagglutination
- D. Coomb`s
- E. Opsonization

110. The pure culture of bacteria was isolated from a pathological material. It was partially identified by morphological, tinctorial, cultural and biochemical properties of bacteria in bacteriological laboratory. The type-

specific adsorbed agglutinative serum was chosen for final identification. What type of agglutination test should be used?

- A. Reaction of slide agglutination
- B. Reaction of agglutination (variant of Widal)
- C. Reaction of agglutination (variant of Gruber)
- D. Reaction of hemagglutination
- E. Reaction of passive hemagglutination

111. Serological diagnostics of thyphoid is found on specific interaction of antigens and antibodies. How reaction is called when electrolyte's presence microorganisms are stuck together under a specific antibodies' influence?

- A. Reaction of precipitation
- B. Reaction of agglutination
- C. Reaction of complement's fixation
- D. Reaction of hemadsorption
- E. Reaction of neutralization

112. Serological diagnostics of infectious diseases is found on specific interaction of antigens and antibodies. How reaction is called when highly dispersive antigens are adsorbed on erythrocytes?

- A. Reaction of neutralization
- B. Reaction of precipitation
- C. Reaction of complement's fixation
- D. Reaction of hemadsorption
- E. Reaction of indirect (passive) hemagglutination

113. The pure culture of bacteria was isolated at bacteriological research of patient with the food poisoning. It has such properties: gramnegative mobile rods on an Endo's media forms the colourless colonies. Name their genus.

- A. Shigella
- B. Iersinia
- C. Esherichia

- D. Citrobacter
E. Salmonella
114. For the serological diagnostics of typhoid the reaction, when to a different solubilisations of patient's sera the diagnosticums of three types of microorganisms are added is used, and the result of which is estimated on the presence of sediment from agglutinated bacteria. This reaction name is:
- A. Ascoli
B. Borde-Gangou
C. Wasserman
D. Wright
E. Widal
115. Bacteriological examination of a patient with food poisoning required inoculation of a pure culture of bacteria with the following properties: gram-negative movable bacillus that gro on the Levin's medium in form of colourless colonies. A representative of which species caused this disease?
- A Esherichia
B Shigella
C Iersinia
D Salmonella
E Citrobacter
116. 55-year-old patient with typhoid fever was treated by chloramphenicol. The next day the patient's condition deteriorated, the temperature rose to 39.6 C. How do you explain the deterioration condition of the patient?
- A. Allergic reaction
B. The effect of endotoxin
C. Irresponsiveness of an agent to antibiotic
D. Secondary infection addition
E. Reinfection
117. From the patient's blood the culture of typhoid agent was isolated. What are the cultural characteristics of this bacteria?

- A. Formation of colourless colonies on Bismuth agar
B. Formation of red colonies with metallic brilliance on the Endo's media
C. Formation of colourless colonies on an Endo's and Ploskirev's media
D. Formation of hemolysis on bloody agar
E. Formation of tender tape on alkaline pepton water
118. A laboratory got the blood of patient with typhoid (15th day of illness) for rising of agglutination reaction. Indicate a reagent, which would give a positive reaction.
- A. The typhoid H-diagnosticum
B. Typhoid O-diagnosticum
C. Diagnosticum typhoid_ with Vi-corporuscles
D. Sera to H-antigens of S. typhi
E. Sera to O-antigens of S. typhi
119. Patient with a suspicion on typhoid was sent to the bacteriological research of blood by the doctor. What is observed during the first weeks of typhoid-paratyphoid?
- A. Septicopyemia
B. Bacteriemia
C. Toxinemia
D. Virusemia
E. Septicemia
120. To infectious department of hospital a person of 37 years old with the clinical signs of typhoid was admitted. Term of disease is 5 days. Bacteriological research of patient's feces gave a negative result. What method of diagnostics

will turn out most expedient for clarification of clinical diagnosis?

- A. Bacteriological research of blood
 - B. Bacterioscopic research of blood
 - C. Serological research of blood
 - D. Bacteriological research of urine
 - E. Bacteriological research of bile
121. A woman of 32 years old has a fever, a headache during a week, she is freezing, a liver and a spleen are megascopic, the elements of roseol rash are noticeable on the skin of stomach. A doctor diagnosed "typhoid". What pathological material is necessary to send for clarification of diagnosis?
- A. Sera of blood
 - B. Stroke of blood from a finger
 - C. Blood from an elbow vein, 10 ml
 - D. Bile
 - E. Feces
122. A man of 57 years old, who has typhoid for 2 years, rejects to pass the inspection of carrying the bacteria. He points that there is no way he can be a transmitter of *Salmonella typhi*. A doctor revised his medical card and agreed with him. What is the conclusion based on?
- A. A man had the easy form of typhoid
 - B. A man got the inoculation by TAB vaccine
 - C. Typhoid carrying of bacteria proceeds for half-year
 - D. A patient had is promoted acidity of gastric juice

E. A patient has no gall-bladder

123. Patient came to doctor-infectionist with complaints to 3 days long fever, general weakness, worsening of appetite. Doctor supposed that it was enteric fever. Which method of laboratory diagnosis is the best to confirm the diagnosis?

- A. Detachment of blood culture
 - B. Detachment of myeloculture
 - C. Detachment of feces culture
 - D. Detachment of urine culture
 - E. Detachment of pure culture
124. Patient was admitted to the infectious clinic with a previous diagnosis "typhoid". He feels sick during three days. What method will give possibility to make a diagnosis?
- A. Isolation of haemoculture
 - B. Isolation of urine culture
 - C. Rising of Widal's reaction
 - D. Biological method
 - E. Isolation of coproculture
125. Agglutination test was used for serologic diagnostics of typhoid. What component need to be used for this reaction except patient serum?
- A. Anatoxin
 - B. Diagnostic serum
 - C. Complement
 - D. Hemolytic system
 - E. Diagnosticum
126. Inactivated typhoid vaccine was checked on rabbits and shows such results: antibodies titer before immunization was 1:5 and after immunization was 1:5. How it is possible to explain it?
- A. Titer of antibodies considerably increases only at the secondary immune response
 - B. Input of a typhoid vaccine forms the cellular immunity, instead of humoral one

C. Presence of natural specific immunity interferes with formation of postvaccinal immunity

D. During the course of preparation the vaccine has lost immunogenic properties

E. It is necessary to inoculate a vaccine together with adjuvant for more active immunity formation

127. Special antibodies were appeared in the patient with typhoid fever on the second week of illness. What are the mechanisms of their protective action?

A. Opsonization, complement activation

B. The neutralization of exotoxins

C. Activation of T-killers

D. Activation of B-lymphocytes

E. Activation of T-suppressors

128. Reaction of passive hemagglutination conducted with erythrocytic typhoid Vi-diagnosticum was used to reveal some antibodies in the dilution of the food business workers's serum at a ratio of 1:80 during planned survey. Is this man a carrier?

A. Yes, he is

B. He is reconvalescent

C. This is disease

D. He is not a carrier

E. He was vaccinated

129. In the area where the expected outbreak of typhoid fever, it is necessary to carry out school children prevention. Which drug is more appropriate to use?

A. TABte vaccine

B. Vi-antigen riched typhoid vaccine

C. The typhoidal polyvalent bacteriophage

D. Donor gammaglobulin

E. The correct antibiotic

130. 37 yeared man with clinical symptoms of typhoid fever delivered to

the infectious department of the hospital, duration of disease is 5 days. Bacteriological examination of patient feces gave a negative result. What method of diagnosis would be more appropriate to clarify the clinical diagnosis?

A. The bacteriological examination of blood

B. Bacterioscopic study of blood

C. Serological study of blood

D. Bacteriological study of urine culture

E. Bacteriological study of bile

131. A 32-year-old woman has a high fever, severe headache, fever, liver and spleen were enlarged and visible elements roseola rash on the skin of the abdomen during the week. The doctor diagnosed "typhoid fever?". What pathological material should be sent for examination to clarify the diagnosis?

A. Feces

B. Blood smear from a finger

C. Serum

D. Bile

E. Blood from the cubital vein, 10 ml.

132. The patient was arrived to the hospital on the eighth day with complaints of headache and weakness. Blood was taken for serological examination. Widal agglutination showed positive result in a dilution 1:200 with typhoid O-diagnosticum. What is the diagnosis can be made on the

basis of this study?

A. Tuberculosis

B. Dysentery

C. Cholera

D. Leptospirosis

E. Typhoid fever

133. After inoculation of feces specimen from a patient with typhoid fever onto Endo media colonies of

different size and colour – big red and medium colourless – have grown.
Name the functional type of this media.

- A. Special
- B. Elective
- C. Differential diagnostic
- D. Selected
- E. Enriched

134. Widal agglutination test showed patients serum antibodies titer to S.typhi Vi-antigens rise from 1:100 to 1:1800. How can we explain these results?

- A. Has typhoid
- B. An acute typhoid bacteria carrier
- C. A chronic carrier of typhoid bacteria
- D. Had typhoid
- E. Previously been vaccinated against typhoid

135. In connection with the outbreak of typhoid has become necessary to survey employees of a café. What reaction is used to diagnose the carrier?

- A. The reverse hemagglutination
- B. The indirect hemagglutination
- C. Latex agglutination
- D. The inhibition of hemagglutination
- E. Vi-hemagglutination

136. There are sporadic cases of typhoid fever in the city A. What method of microbiological diagnosis can not be used to identify people infected with S. typhi?

- A. Biological
- B. Bacteriological
- C. Serological
- D. Allergotest

137. A patient`s blood with a preliminary diagnosis "Typhoid fever" is studied in the laboratory. After which time, since the serological diagnostics method of infectious diseases can be most effective?

- A. One month after
- B. After 3 days

C. After 12 hours

D. After a week

E. From the onset of the disease

138. The pure culture of bacteria isolated from a patient with suspected typhoid blood is studied in the bacteriological laboratory. What serological tests should be used to study the antigenic structure?

- A. Precipitation
- B. Agglutination
- C. CBT
- D. ELISA
- E. Flocculation

139. An outbreak of food poisoning associated with consumption of confectionery products which are stored at room temperature and manufactured from duck eggs was registered. Which organisms can cause a poisoning?

- A. E. coli
- B. Salmonella
- C. Staphylococci
- D. Legionella
- E. Vibrio cholerae

140. The gramnegative medium size motile rods with rounded ends which are agglutinated with salmonella group B O-serum were revealed in patient at bacteriological study of vomiting mass. The identical organisms were revealed in meat the salad which recently was eaten by all patients. A pathogen of which disease is it in this case?

- A. Salmonella-agent of acute gastroenteritis
- B. Salmonella pathogen of typhoid
- C. Salmonella paratyphi A pathogen
- D. Esherhii causing foodborne
- E. Proteus foodborne pathogen

141. The boy, aged 12, remains in hospital with suspected food poisoning. A large number of colorless colonies were grew on Endo medium after

patient faeces inoculation. Which organisms can most likely be eliminated with the number of possible causative agents of disease?

- A. *Pseudomonas aeruginosa*
- B. *Salmonella enteritidis*
- C. *Proteus vulgaris*
- D. *Escherichia coli*
- E. *Yersinia enterocolitica*

142. The majority of guests who attended the banquet had vomiting, abdominal pain, diarrhea and fever after 12 hours. The anamnesis revealed that all of them ate meat salad, pickled cucumbers, zucchini, potatoes, biscuits with cream and fruit juices. Which of organisms can be identified by bacteriological examination of material from the patients?

- A. *S. enteritidis*
- B. *C. botulinum*
- C. *S. aureus*
- D. *E. coli*
- E. *C. perfringens*

143. The pure culture of bacteria isolated from a patient with food poisoning. It was identified as

Salmonella enteritidis. In this case we are talking about:

- A. Serotype
- B. Species
- C. Genus
- D. Hemovary
- E. Biovary

144. The serological test was used for bacterial culture seroindentification in the bacteriological laboratory with the material from a patient with suspected salmonella gastroenteritis. What type of reaction can be supplied with this antigen?

- A. The reaction of neutralization
- B. Agglutination
- C. The reaction of precipitation
- D. The reaction of indirect

agglutination

E. The reaction of flocculation

145. Widal's agglutination test was used for patient with suspected typhoid after 2 weeks from the beginning of disease. The reaction was negative. What can be the reason of negative result?

- A. Presence of pathogen in an intestine
- B. Presence of pathogen in a blood
- C. Presence of antibodies in a blood
- D. Absense of typhoid in a patient
- E. Presence of pathogen in bilious

146. Inspection of school dining-room staff for typhoid carrying has been carried out. There were revealed antibodies to Vi-antigen in the blood serum of the cook. Which test has been used?

- A. Complement fixation test.
- B. Widal's test.
- C. Indirect hemagglutination test.
- D. Enzyme immunoassay.
- E. Immunofluorescence test.

147. Identification of food toxical infection causative agent has shown that according to biochemical properties it belongs to *Salmonella* genus. What property of the causative agent testifies its specific belonging?

- A. Pathogenicity for laboratory animals.
- B. Phagotype.
- C. Culture properties.
- D. Antigenic structure.
- E. Morphologic and staining properties.

148. Feces of a restaurant cook without any clinical symptoms of disease are examined with the help of bacteriological methods. On bismuth-sulfite agar little black colonies with metallic sheen have grown. What microorganisms can it be?

- A. Salmonellae.
- B. Shigellae.
- C. Escherichiae.
- D. Staphylococci.
- E. Streptococci.

Microbiological diagnostics of Shigellosis

149. *Sh. sonnei* were isolated from feces of patient. Which additional researches must be used for establishment of the source of infection.?

- A. To apply the phagotyping of isolated pure culture
- B. To apply the antibioticogram
- C. To apply the reaction of agglutination RA
- D. To apply the reaction of indirect hemagglutination RIHA
- E. To apply immunofluorescence reaction IFR

150. The culture of *Shigella* was isolated in patient with dysentery. It was established, for what phages it was sensible to. However the using of these phages as the method of specific therapy turned out vain. What is the most credible reason of failure?

- A. A pathogen can live inside the cells
- B. In the humans' organism a pathogen does not form receptors for attachment of bacteriophage
- C. Used phages are moderate
- D. An infectious process is supported due to mutants
- E. In humans' organism phages are inactivated

151. In nursery school the flash of acute intestinal infection was registered. Children, who fell ill, suffered of diarrhea, feces with mucus and blood, a temperature was promoted to 38°C. They have stomach-ache,

frequent vicious urges on defecation. Indicate the most credible pathogen:

- A. *Escherichia coli*
- B. *Salmonella enteritidis*
- C. *Shigella flexneri*
- D. *Entamoeba dysenteriae*
- E. *Yersinia enterocolitica*

152. The bacteriological method must be used to identify sources of infection during outbreaks of shigellosis. The research yielded no result. It was decided to use phage diagnostics. Such research includes:

- A. Determination of phagocytes activity of examined blood
- B. Detection of bacteriophages in pathological material
- C. Determination of phage type
- D. Performances bacteriophage titer increase reaction
- E. Detection of functional abnormalities in the digestive system

153. To resolve the issue retrospective diagnosis of bacterial dysentery was transferred assigned to serological study of blood serum to determine antibody titer to *Shigella*. Which of these reactions is appropriate for this?

- A. Passive hemagglutination
- B. Complement fixation
- C. Precipitation
- D. Hemolysis
- E. Bacteriolysis

154. *Shigella* with ability to produce exotoxins were isolated from a patient diagnosed with dysentery. What species of *Shigella* talking about?

- A. *Shigella boydii*
- B. *Shigella sonnei*
- C. *Shigella flexneri*
- D. *Shigella dysenteriae*
- E. *Shigella New Castle*

155. In the infectious ward hospitalized patient complaining of nausea, liquid emptying with slime and blood streaks,

fever, weakness. The doctor suspected dysentery. What is the most expedient method of laboratory diagnosis to confirm

the diagnosis?

A. Bacteriological

B. Serological

C. Mycological

D. Microscopic

E. Protozoological

156. In patients with symptoms of colitis pure culture of bacteria, which on morphological, culturing and biochemical properties attributed to the genus *Shigella* were isolated. Which of these reactions should apply for the serological identification?

A. Agglutination with diagnostic serums

B. Complement fixation

C. Indirect hemagglutination

D. Precipitation

E. Delays hemagglutination

157. The patient was taken to the hospital with complaints of headache, fever, frequent bowel movements, abdominal pain with tenesmus. The doctor made a clinical diagnosis of "dysentery" and sent pathmaterial (excrement) in the bacteriological laboratory. Which method for diagnosing physician-bacteriologist was to confirm or refute the diagnosis?

A. Allergotest

B. Biological

C. Bacterioscopic

D. Serologically

E. Bacteriological

158. Pure culture of dysentery agent was isolated from patient in the laboratory. What research should be carried out for final serological identification?

A. Use agglutination test with the standard serums

B. Carry out agglutination test with serum of the patient

C. Use indirect hemagglutination reaction

D. Carry out the reaction of molecular hybridization

E. Find thermostable antigens in ring precipitation test

159. In a patient who became ill 3 days ago and complained of fever (38 C), abdominal pain, frequent bowel movements, presence of blood in the stool, a physician clinically diagnosed bacterial dysentery. What method of microbiological diagnostics should be apply in this case and what material should be taken from a patient?

A. Bacterioscopic - blood

B. Bacterioscopic - excrements

C. Bacteriological - excrements

D. Bacteriological - urine

E. Antibodies - blood

160. In 4 days 10 children fell ill with clinical signs of acute intestinal infection in different age groups of kindergarten. Sonnei dysentery agent was revealed in feces of these patients. Due to the unfavorable epidemiological situation in this children's group contact among children is necessary to conduct prevention activities. Which drug for specific prevention should be prescribed to children that were in contact with these patients?

A. Dyzentery bacteriophage

B. Antibiotics

C. Sulfanilamides

D. The vaccine TABte

E. Immunoglobulin

161. The patient recovered after dysentery Sonnei and reinfected by the same pathogen. As this infection is called?

A. Chronic infection

B. Relapse

- C. Superinfection
- D. Persistent infection
- E. Reinfection

162. Shigella were not revealed in feces of patient with typical clinical signs of dysentery due to early use of antibiotics. Antishigella antibodies titer increased 4 times in the reaction of direct hemagglutination in paired sera of this patient. What this means?

- A. Confirms the diagnosis of dysentery
- B. Excludes the diagnosis of dysentery
- C. Previously suffered dysentery
- D. Pseudoreaction
- E. Vaccination reaction

163. Shigella Sonnei. was isolated from patient`s defecation with intestinal infection. Which of the following serological tests were used to identify an isolated pure culture?

- A. Agglutination test
- B. The reaction of precipitation
- C. Fixation of complement
- D. Neutralization reaction
- E. Lysis reaction

164. Phage prevention of shigellosis must be done to group of students were in contact with patients during outbreaks. What mechanism will ensure their protection?

- A. Phage typing
- B. Phagocytosis
- C. Phage lysis
- D. Pinocytosis
- E. Small diffusion

165. Multiple brownish-green layers, haemorrhage: the gut lumen mucus, a small amount of blood were revealed in the mucosa of rectum and sigmoid colon of the 46 year old man body after opening, histologically - fibrinous colitis. S. sonne was revealed at bacteriological examination of the intestinal contents. What is the most likely diagnosis?

- A. Salmonellosis
- B. Cholera
- C. Crohn's disease
- D. Yersiniosis
- E. Dysentery

166. The culture of microorganisms, which were isolated from a patient was brought in the conjunctival sack of guinea-pig with the purpose of diagnostics of bacterial dysentery by a biological method. A result turned out positive – conjunctivitis was developed in an animal. The presence of what factor of pathogenicity of dysenteric bacteria was exposed by this way?

- A. Enterotoxin
- B. Cytotoxin
- C. Endotoxin
- D. Capsule
- E. Pili

167. Colitis was exposed in the time of dissection of the deceased child, who suffered of diarrhoea. In the smear-imprint of mucus membrane gram-negative bacteria were revealed. What is the most credible diagnosis?

- A. Staphylococcus intestinal infection
- B. Cholera
- C. Salmonellosis
- D. Dysentery
- E. Typhoid

168. For the purpose of retrospective diagnostics of recent bacterial dysentery it was decided to perform serological examination of blood serum in order to determine antibody titer towards Shiga bacilli. What of the following reactions should be applied?

- A Bacteriolysis
- B Bordet-Gengou test
- C Precipitation
- D Hemolysis
- E Passive hemagglutination

169. A patient recovered after Boyd

dysentery and was once more infected with the same causative agent. What such infection form is called?

- A Recidivation
- B Reinfection
- C Superinfection
- D Persisting infection
- E Chronic infection

170. The pathogen of dysentery was isolated in the child with an acute intestinal infection. What morphological and tinctorial signs are characteristic for this pathogene?

- A. Gram-negative, immobile
monobacteria
- B. Gram-negative, mobile
monobacteria
- C. Gram-positive, monobacilli
- D. Gram-positive, streptobacilli
- E. Gram-negative, vibrios

171. At the bacteriological laboratory a request for acquisition of preparations for diagnostics of intestinal infections is aquared. Which of the preparations adopted below was included to the list uncorrectly?

- A. A serum choleraic O1
- B. A phage choleraic El-Tor
- C. A luminiscent typhoid serum
- D. Dysenteric polyvalent phage**
- E. Erythrocyte diagnosticum with *Shigella flexneri*

172. A 71-year-old man had been presenting with diarrhea for 10 days. The feces had admixtures of blood and mucus. He was delivered to a hospital in grave condition and died 2 days later. Autopsy of the body revealed the following diphtheritic colitis with multiple irregularly-shaped ulcers of different depth in both sigmoid colon and rectus. Bacteriological analysis revealed *Shigella*. What was the main disease?

- A. Nonspecific ulcerous colitis
- B. Salmonellosis
- C. Crohn's disease
- D. Yersiniosis
- E. Dysentery

Microbiological diagnostics of cholerae

173. In the feces of a patient with acute gastroenteritis there were revealed motile, slightly curved Gram-negative rods, which grow onto alkaline 1% peptone water in the form of tender bluish pellicle. What microorganisms have such properties?

- A. Spirilla.
- B. Spirochetes.
- C. Clostridia.
- D. Bacilli.
- E. Vibrios.

174. As a result of feces inoculation onto 1% alkaline peptone water after 8 hours' incubation with 37° C temperature a growth in the form of tender bluish pellicle was revealed. Microscopy revealed Gram-negative curved rods. What disease could these microorganisms cause?

- A. Shigellosis.
- B. Plague.
- C. Typhoid fever.
- D. Paratyphoid fever.
- E. Cholera.

175. A patient is hospitalized to an infectious department with cholera suspected. What basic method of research is necessary to use for the confirmation of the diagnosis?

- A. Immunological.
- B. Bacteriological.
- C. Biological.
- D. Serologic.
- E. Allergic.

176. Feces of a patient with cholera were delivered to a laboratory of extremely dangerous infections. What method of microbiological diagnostics is to be used to confirm or deny the diagnosis?

- A. Virological.
- B. Allergic.
- C. Bacterioscopic.
- D. Biological.
- E. Bacteriological.

177. From the vomit mass of a patient there were isolated very motile, slightly curved, Gram-negative rods which react positively with Inaba's diagnostic serum. What symptoms, most probably, will appear with the treatment absent?

- A. Endotoxic shock.
- B. Bacteremia.
- C. Fluid loss.
- D. Skin rash.
- E. Ulcerous damages of intestine.

178. A patient with complaints of repeated diarrhea and vomiting, pain in muscles of legs, general weakness, and vertigo is hospitalized to an infectious department. After examination a doctor has previously diagnosed cholera. Which method of investigation of the specimen from the patient should be used for express-diagnostics?

- A. Immunofluorescence test.
- B. Agglutination test.
- C. Bacteriological.
- D. Allergic.
- E. Biological.

179. Patient with diarrhoea was admitted to the infection unit. Gramnegative curved rod-like bacteria were founded on bacterioscopic examination of faecal masses. What is the most likely disease in this patient?

- A. Cholera
- B. Typhoid fever
- C. Salmonellosis gastroenteritis
- D. Diphtheria
- E. Intestinal form of plague

180. The one of identification stages of diagnostics of the patient with previous diagnosis "Cholera" is the revealing of infectious agent monotrichal mobility. What method of determining is used for this purpose?

- A. Method of the "hanging" or "crushed" drop
- B. Gram's method
- C. Loeffler's method
- D. Method of peptone water inoculation
- E. Method of peptone agar inoculation

181. 42-years old man has symptoms of cholera. Bacterioscopic analysis of feces and serological analysis of serum was confirmed a clinical diagnosis, while the repeated attempts to isolate the pure culture of *Vibrio cholerae* on ordinary for choleric vibrio media were not successful. What is the most probable reason of failures?

- A. The tool that was used for the inoculation of the pathological material had traces of disinfectants
- B. The anaerobic conditions of growing were not provided
- C. The agent is auxotrophic mutant
- D. Culture was infected with virulent bacteriophage
- E. Isolated culture only morphologically similar to *Vibrio cholerae*

182. Culture of cholera vibrios was isolated from feces and vomit of patient. Conducting of which reaction will determine the type of microbe that caused the disease?

- A. Agglutination with serum containing O-antibodies

B. Agglutination with serum containing H-antibodies

C. Passive hemagglutination with erythrocyte diagnostics

D. Agglutination by Widal

E. Precipitation

183. The outbreak of cholera was marked in the region. It is necessary to reveal which biovary of *Vibrio cholerae* is a pathogen. Which of the following methods give the most reliable results?

A. Biochemical identification

B. Serological identification

C. Bio test

D. The polymyxin test

E. Morphological

184. The 10-year-old child with diarrhea, vomiting, dry skin, cyanosis, ischuria (urinary retention) was hospitalized to infectious department of the hospital. Pathmaterial was delivered to the laboratory. What is the most probable result of pathmaterial inoculation onto medium?

A. Blue colonies on alkaline agar

B. Red colonies on Endo medium

C. Colourless colonies on Endo medium

D. Yellow colonies on yolk salt agar

E. Large mucous colonies on meat pepton broth

185. Comma shape gram negative bacteria were revealed in the smears from the patient's feces. What properties need to be studied firstly with microscope use for additional information about microorganisms?

A. The presence of cysts

B. The presence of capsules

C. The presence of spores

D. Mobility

E. The primary fluorescence

186. Exo- and endotoxins, enzymes of aggression play significant role in the

pathogenesis of cholera. The main syndrome of the disease is dehydration.

Select which of these pathogenic

factors cause dehydration is the main.

A. Defect of membrane phospholipids

B. Splitting of neuraminic acid

C. Destruction of hyaluronic acid

D. Adenylatcyclase activating

E. Destruction of mucine

187. Patients was hospitalized to the infectious department with suspected cholera. What is the primary diagnostics method should be used to confirm the diagnosis?

A. Immunologic

B. Bacteriological

C. Biological

D. Serological

E. Allergic

188. The laboratory of extremely dangerous infections was performed microscopic studies of smears made from film that has grown on 1% pepton water within 6 hours of feces taken from patients with suspected cholera cultivation. On the basis of which the morphological and tinctorial properties it is possible to do a preliminary conclusion about the presence of *Vibrios* in the grown film?

A. Mobile, Gram-negative curved bacillus

B. Movable, curved gram-variable bacillus

C. Movable, curved gram-positive bacillus

D. Mobile, Gram-negative straight fusiform rods

E. Mobile, gram-positive pair bacillus

189. Cholero-gen is a main pathogenesis factor of cholera. It determines dehydration of patients organisms with cholera. Mechanism of cholera gene action is:

A. Blocks transferase-2

- B. Causes damage of erythrocytes
 - C. Causes salts hypersecretion
 - D. Increases fluid and electrolyte balance
 - E. Activates adenilatcyclase
190. The pure culture of Gram-negative, slightly curved, motile rods that fermented mannose and sucrose to acid and was agglutinated by O1 choleraic anti-sera was isolated from patient with acute gastroenteritis feces. What media was used for isolated pure culture?
- A. 1% peptide alkaline water, TCBS media
 - B. Blood meat pepton agar, Ploskirev`s medium
 - C. 1% pepton alkaline water, Endo media
 - D. Meat peptide agar, meat pepton broth
 - E. Sugar and meat agar, alkaline meat pepton agar
191. Feces of a patient C. with cholera were delivered to a laboratory of extremely dangerous infections. What method of express diagnostics is to be used to confirm the diagnosis?
- A. Immunofluorescence
 - B. Complement fixation test
 - C. Agglutination test
 - D. Precipitation
 - E. Haemagglutination test
192. The patient with witnessed recurrent diarrhea, vomiting, rice broth like feces, lowered body temperature and heart insufficiency was hospitalized to the infection ward. His skin is bluish and wrinkled. Which pathogenicity factor lead to the development of these disorders?
- A. Endotoxin
 - B. Enterotoxin
 - C. Invasiveness

- D. Aggression
 - E. Hemolysins
193. Sanitary Epidemiological Station of town S. is controlling the possibility of V.cholerae detection in seawater. What is the epidemiology of cholera in this feature is taken into account?
- A. Probability of hospital infection
 - B. Zoonotic
 - C. Sapronotic
 - D. Probability of iatrogenic infection
 - E. Vector borne transmission
194. Microscopy study of patient with diarrhea defecation was revealed the bent rod organisms that look like fish flocks. Which bacteria were revealed?
- A. Vibrio
 - B. Bacteria
 - C. Bacillus
 - D. Spirillum
 - E. Actinomycetes
195. The cholera vibrios pure cultures isolated from 31 yeared carrier K. were studied in a laboratory of extremely dangerous infections. Which properties of cholera agent can be determined in unfixed preparation?
- A. Monotryhic mobility
 - B. Peritryhic mobility
 - C. Tinctorial properties
 - D. Capsule formation
 - E. The arrangement of bacteria
196. The bacteriophage titer increase reaction with the standard cholera bacteriophages was used for sea water quality examination. The reaction was positive. This result is evidence of:
- A. Escherichia coli presence
 - B. Absence of cholera pathogens in samples
 - C. Presence of organic residues in samples
 - D. Absence of organic water pollution
 - E. Presence of cholerae pathogens in samples

197. In the feces of a patient with intestinal disease there were revealed *Vibrio*. What group of morphological properties this microorganisms belong to?

- A. Spiral
- B. Clostridium
- C. Cocci
- D. Bacteria
- E. Bacillus

198. Diagnosis "Helicobacteriosis" was put to the patient after biopate esophagogastroduodenoscopy. What characteristics of isolated from this patient bacteria was taken into account at cultivating?

- A. Lack of spores and capsules
- B. The presence of the urease enzyme
- C. Colonization of the gastric type mucosal cell
- D. Microaerophilic
- E. The presence of six polar flagella

199. Patient S., aged 28, was hospitalized with symptoms of mild intoxication and bloody diarrhea. Gram-negative helical bacteria were revealed during bacteriological examination of feces. They do not form spores and capsules, are microaerophilic, catalase positive, urease positive and mobile. Name the bacteria, which are characterized by these properties.

- A. *Proteus mirabilis*
- B. *Escherichia coli*
- C. *Haemophilus influenzae*
- D. *Helicobacter pylori*
- E. *Salmonella typhi*

200. The bacteriological examination was proposed to patient to establish the etiology of gastric ulcers. What microorganisms would be revealed?

- A. *Salmonella*
- B. *Listeria*
- C. *Leptospira*

D. *Shigella*

E. *Helicobacter*

201. The biopsies of the ulcer in mucous membrane were taken in patient with stomach ulcer during fibrogastroscopy. Gram-negative helical bacteria were revealed during microscopy examination of biopsy smears with positive urease activity test. Which bacteria have been revealed?

- A. *Campylobacter jejuni*
- B. *Spirilla minor*
- C. *Shigella flexneri*
- D. *Treponema pallidum*
- E. *Helicobacter pylori*

202. The patient with acute colitis with symptoms of mild intoxication, diarrhea, blood in stool was hospitalized. Gram-negative helical, microaerophilic, catalase positive, urease positive and mobile bacteria without spores and capsules were revealed during bacteriological examination. They resemble the wings of a gull. Name these bacteria.

- A. *Escherichia coli*
- B. *Helicobacter pylori*
- C. *Haemophilus influenzae*
- D. *Proteus mirabilis*
- E. *Salmonella typhi*

203. The motile, gram-negative bacilli were revealed in the suspected foods. They showed creeping growth on meat peptone agar (MPA) in the 18-hour culture. Isolates produced gas H_2S and indole, fermented glucose, maltose and sucrose to acid and did not ferment lactose, mannitol. Bacteriological study showed that the isolated bacteria belong to the genus:

- A. *Proteus*
- B. *Escherichia*
- C. *Pseudomonas*
- D. *Salmonella*

E. Shigella

204. The symptoms of acute diarrhea were developed in 7 patients from the group of tourists (27 people) which used water from the pond after 2 days. The material was delivered to the bacteriological laboratory to study etiology of this disease. Which material was used for the diagnosis of the disease study?

- A. Food
- B. Blood of patients
- C. Urine
- D. Water and feces of patients
- E. Sputum

205. Patient with diarrhoea was admitted to the infection unit. Gramnegative curved rod-like bacteria were founded on bacterioscopic examination of faecal masses. What is the most likely disease in this patient?

- A Cholera
- B Typhoid fever
- C Salmonellosis gastroenteritis
- D Diphtheria
- E Intestinal form of plague

206. Patient with vomite was admitted to the infection unit. Gramnegative curved rod-like bacteria were revealed at bacterioscopic examination of vomiting masses. What is the mostlikely disease in this patient?

- A. Salmonellosis
- B. Cholera
- C. Crohn's disease
- D. Yersiniosis
- E. Dysentery

Microbiological diagnostics of brucellosis and anthrax

207. During the swing of flu epidemic a milkmaid referred to a doctor with complaints of high body temperature,

general weakness, absence of appetite, pain in joints. During 10 days she had treated flu. The infectionist suspected brucellosis. Using what reaction is it possible to diagnose brucellosis?

- A. Wright's.
- B. Wasserman`s test.
- C. Coombs test.
- D. Widal's test.
- E. Ouchterlony test.

208. The territory of the burial ground of cattle, which has not been used for more than 50 years, is planned for house building. However, soil examination has shown the presence of viable spores of an especially dangerous disease causative agent. Name the microorganism which could have been preserved in soil during such a long time.

- A. Yersinia pestis.
- B. Francisella tularensis.
- C. Bacillus anthracis
- D. Brucella abortus.
- E. Mycobacterium bovis.

209. During a biological test in touch smears from the organs of an animal streptobacteria surrounded with a capsule were revealed. It gives the basis to diagnosis:

- A. Brucellosis
- B. Tularemia
- C. Plague
- D. Anthrax
- E. Crupous pneumonia

210. During a scheduled examination milkmaids had a Burnet's intracutaneous allergy test. This test is used to detect hypersensitivity to:

- A. Brucellin
- B. Tuberculin
- C. Koch's tuberculin
- D. Tularin
- E. Anthraxin

211. Veterinary attendant, working at a cattle farm complaints on joint pain, fever, indisposition and sweating at nighttime that he has been experiencing for a month. Giving the regard to such presentations and occupational history the doctor suspected brucellosis, despite the patient works on a cattle farm and despite all complaints. What material taken from this patient is to be analyzed in an ordinary microbiological laboratory?

- A. Feces
- B. Spinal liquid
- C. Vomit masses
- D. Urine
- E. Blood serum

212. A 34-year-old patient complained of carbuncle on his face. Examination revealed a painless thin edema of subcutaneous fatty tissue with a black eschar in the center, and vesicular eruption on the periphery. Microbiologic examination revealed nonmotile capsule-forming streptobacilli. What microorganisms are the causative agents of this disease?

- A. Bacillus megaterium
- B. Staphylococcus aureus
- C. Bacillus anthracis
- D. Bacillus subtilis
- E. Bacillus anthracis

213. A black-stained carbuncle has appeared on the veterinary doctor's cheek after a dead cow examination. During a microscopic diagnostics the gram-positive bacilli in chains looks like a bamboo stick were revealed. What pathogen has these morphological and tinctorial properties?

- A. P.vulgaris
- B. C.perfingens
- C. Y.pestis

- D. B.anthraxis
- E. F.tularensis

214. The doctor has put a preliminary diagnosis "Anthrax. Dermal form" to the examined patient. In this case microscopy of carbuncle's exudates smears stained by Gram will show:

- A. Big violet bacilli with spores, which are arranged in chain
- B. Violet bacilli, which are arranged angularly to each other
- C. Pink bacilli, which are randomly arranged
- D. Pink bacilli with bipolar coloring
- E. Slightly curved pink bacilli

215. A veterinary doctor with the preliminary diagnosis "brucellosis" was delivered to the infectious hospital. On the basis of what serological test this diagnosis can be confirmed?

- A. Wright's agglutination reaction
- B. Vidal's agglutination reaction
- C. Ascoli's precipitation reaction
- D. Veigl's agglutination reaction
- E. Complement-fixation reaction

216. A man referred to the reception ward of an infectious disease hospital, having received by mail an envelope with suspicious powder. The man was isolated, and the powder was sent to the laboratory for detecting the presence of anthrax causative agent's spores. Which is the fastest method of detecting these microorganisms?

- A. Precipitation in gel
- B. Complement-fixation test
- C. Luminescence immunoassay
- D. Pure culture isolation
- E. Biological assay on mice

217. A child has diagnosis "Brucellosis". He/she (child) was not in contact with the infected animals. How could the child was infected?

- A. Through fresh milk

- B. Through unwashed fruits and vegetables
 - C. Through water
 - D. Through dirty hands
 - E. During the injections
218. A strobiloid red stained infiltrate with edema was found by doctor on the skin hand of 42-year-old butcher. There is a black stained scab in the centre of the infiltrate. What disease is it?
- A. Flegmona
 - B. Abscess
 - C. Furunculosis
 - D. Plague
 - E. Anthrax
219. A bacteriologist completed such processes for a complete confirmation of the preliminary diagnosis: 1) Inoculation of the pathological material onto liver and sugar broth; 2) Isolators' sensibility checking (before antilinear staining agent's action); 3) Serological reactions of Wright and Haddison; 4) Burnet's allergen skin test. What diagnosis was confirmed with the help of those bacteriological methods?
- A. Q-fever
 - B. Tularemia
 - C. Typhoid
 - D. Salmonellosis
 - E. Brucellosis
220. A patient with brucellosis has a positive Burnet's intracutaneous allergy test. Which immune system factor can induce inflammatory reaction in the site of brucellin introduction?
- A. Ig A
 - B. Sensitized T-lymphocytes
 - C. Ig E
 - D. Ig C
 - E. Ig D
221. A soluble thermostable antigen is prepared in water-salt extract from raw-material in order to check the

animal raw-materials for the anthrax agent presence. What reaction is used for this?

- A. Neutralization
- B. Precipitation in agar
- C. Agglutination
- D. Passive hemagglutination
- E. Ring precipitation

222. Anthrax pathogen was inoculated into gelatin and "inverted fir-tree" liquifaction of gelatin was observed after incubation. What properties were studied in this case?

- A. Proteolytic
- B. Sacharolytic
- C. Fibrinolytic
- D. Hemolytic
- E. Cultural

223. Rodlike bacilla with capsule, located in chains were found during a microscopic examination of carbuncle from patient with anthrax. What microbes were revealed?

- A. Monobacillus
- B. Streptobacillus
- C. Monobacteria
- D. Streptobacteria
- E. Diplobacteria

224. In a laboratory the precipitation test is used (Askoly test) for the examination of animal skins. An albescent ring formed in some minutes after adding of the skin extract to the immune serum. What does this result indicate?

- A. Presence of Bacillus anthracis antigens
- B. Presence of Clostridium perfringens toxin
- C. Presence of brucellosis causative agent
- D. Presence of Escherichia surface antigen
- E. Presence of Salmonella Vi-antigen

225. A patient complained of painless carbuncle on his face. Microbiologic examination revealed nonmotile capsule-forming streptobacilli. What microorganisms are the causative agents of this disease?

- A. Anthrax pathogen
- B. Pathogenic Clostridies
- C. Fusobacteries
- D. Plague pathogen
- E. Bacteroides

226. A patient complained about a carbuncle on his face. Examination results: neither dense nor painful edema of subcutaneous cellular tissue, there is black crust in the middle of the carbuncle and peripheral vesicular rash around it. Bacteriological examination revealed presence of immobile streptobacilli able of capsulation. What microorganisms are causative agents of this disease?

- A. Bacillus antracis
- B. Staphylococcus aureus
- C. Bacillus subtilis
- D. Bacillus antracoides
- E. Bacillus megaterium

227. A 34 year old male patient consulted a doctor about face carbuncle. Objectively: a loose, painless edema of hypodermic tissue: black crust in the centre of carbuncle, vesicular rash around it. Microbiological examination revealed static streptobacilli capable building. What microorganisms are the a causative agents of this disease?

- A. Bacillus antracis
- B. Bacillus megaterium
- C. Staphylococcus aureus
- D. Bacillus antracoides
- E. Bacillus subtilis

Microbiological diagnostics of plague and tularemia

228. A patient with the symptoms of tularemia was delivered to a city infectious hospital. Which method can be used for early diagnostics of disease?

- A. Allergy test
- B. Biological
- C. Serological (agglutination reaction)
- D. Bacteriological (pure culture isolation)
- E. Microscopic

229. A patient with symptoms of tularemia was delivered to the infectious hospital. Which method is used for an early diagnostics nowadays?

- A. Bacteriological
- B. Biological
- C. Serological
- D. RIF (express-method)
- E. Allergic

230. The lymph nodes material of 36-year-old man with a suspicion on plague were punctuated and inoculated on MPA in Petri dishes. Sterile round areas (1-1,5 mm) with homogeneous growth of microorganisms have appeared after one day. How to explain the appearance of these sterile spots?

- A. Wrong selective medium
- B. Pathological material had a small quantity of causative agent
- C. Cells in old cultures give an autolysis
- D. Microorganism- antagonist was isolated together with causative agent
- E. Culture is lysogenic

231. Immunofluorescence reaction was used for recognizing a plague bacteria in the smear. The preparation was processed with anti-plague serum. Glowing bacteria were revealed during luminescent microscopy. It was estimated as presence of a plague causative agent inside the smear.

Luminescence of plague bacteria is connected with:

- A. Anti-plague antibodies got connected with the surface antigens of plague bacteria and produce glow, because they are connected with luminescent staining agent
- B. An antigen-antibody reaction took place on the surface of bacteria
- C. Luminescent staining agent covered bacteria inside the smear
- D. Plague bacteria produce their own luminescence
- E. An antigen-antibody complex fixed the complement on the surface of plague bacteria

232. Gram-negative ovoid bacteria with bipolar filling were isolated from sputum of the patient with high temperature, shiver, headache and cough. Bacteria are located in chains forms inside the smear of broth culture and create R-form colonies on agar. Which disease is it?

- A. Plague
- B. Tuberculosis
- C. Anthrax
- D. Diphtheria
- E. Streptococcal angina

233. A group of Ukrainian dentists must go to Africa on assignment. But it is known that several hundreds persons have plague every year in this country. What vaccine (from listed below) must be used for plague prevention?

- A. CTI
- B. Alive vaccine EV
- C. Toxoid
- D. Combined vaccine
- E. Chemical vaccine

234. What must be done to the hunter hospitalized on the 5-th day of the disease for confirming the "tularemia" diagnosis on the early stages of diagnostics:

- A. RPHA
- B. RA
- C. Allergic test
- D. CFR (Complement-fixation reaction)
- E. RIF

235. Dwellers of a village noticed mass mortality of rodents in some farms. There is It was suspected that the animals might have died from plague. What post-mortal examination should be conducted in order to establish the causative agent of the infection as soon as possible?

- A. Complement fixation reaction
- B. Agglutination reaction
- C. Passive agglutination reaction
- D. Ring precipitation reaction
- E. Neutralization reaction

236. During diagnostics of plague the credibility of bacteriological examination increases while using immunofluorescence reaction. Describe the microscopic picture at this reaction using:

- A. Small coccal type pink bacteria
- B. Small ovoid rods with bright green glow
- C. Big violet bacillus with chopped off limbs
- D. Small pink rods with rounded limbs
- E. Slightly arched red bacillus, situated angularly to each other

237. A punctate of groin lymph nodes was taken from a patient with suspicion on plague. Material was inoculated into solid nutritious media. What looks must the colonies have if "plague" diagnosis is confirmed?

- A. "Patterned kerchief"
- B. "Drops of mercury"
- C. "Drops of dew"
- D. "Shagreen skin"
- E. "Lion's mane"

238. Ovoid microorganisms about 2 μm length intensively stained on poles were revealed during microscopy of the patient's sputum (the previous diagnosis is "acute pneumonia"). What is the most possible final diagnosis?

- A. Pulmonary plague form
- B. Pneumococcal pneumonia
- C. Staphylococcal pneumonia
- D. Klebsiella pneumonia
- E. Diphtheria

239. In a mountain settlement mass death of rodents was observed. Simultaneously the inhabitants of this area were ill. The illness was accompanied by the fast rise of body temperature up to 40° C, apparent intoxication, increase of inguinal lymph nodes. In the touch smears of cadaveric material Gram-negative bipolarly stained ovoid rods were revealed. What microorganisms are the causative agents of this infectious disease?

- A. Staphylococci
- B. Costridia
- C. Causative agents of tularemia
- D. Causative agents of anthrax
- E. Causative agents of plague

240. A doctor has suspected a bubonic form of tularemia in the patient and sent the examined material to bacteriological laboratory for bacteriological method of diagnostics. What is special for this method in this case?

- A. A pure culture is isolated from infected laboratory animals
- D. A pure culture is isolated on solid nutritious media
- C. A pure culture is isolated using the elective media
- D. Isolated culture is identified using it's antigen structure

E. A pure culture is isolated on fluid media

241. A muskrat-hunter's temperature has increased to 39 degrees, headache and weakness have appeared. A small exponent appeared on his neck skin. A preparation was made from it's scraping. Rodlike gram-negative bacteria, that are very small without capsules and evenly stained were revealed. What causative agent can be spoken of, considering microorganism morphology, clinical picture and type of the patient's activity?

- A. Tularemia
- B. Anthrax
- C. Plague
- D. Brucellosis
- E. Leishmaniasis

242. A microbiological examination of pathologic material stained by Gins-Burri taken from a patient with a suspicion on plague and delivered to the laboratory of extremely dangerous infectious diseases was done. What property of causative agent this method allows to study?

- A. Acidity
- B. Spore formation
- C. Capsule formation
- D. Alkaline resistance
- E. Presence of volutin granules

Microbiological diagnostics of tuberculosis and actinomycosis

243. A 7-year-old child has an acute positive tuberculin Mantoux test for the first time. What does this result testify about?

- A. About Hansens' bacillus infection
- B. About tubercule bacillus infection
- C. About BCG vaccination
- D. About Mantoux test had put before
- E. About tuberculosis disease

244. During official registration of the child to school for the decision of question about the necessity of revaccination Mantoux test was negative. What does the given result testify about?

- A. About absence of antibodies to the tubercular bacteria
- B. About the presence of cellular immunity to tuberculosis
- C. About absence of cellular immunity to tuberculosis
- D. About absence of antitoxic immunity to tuberculosis
- E. About the presence of antibodies to the tubercular bacteria

245. At the study of phlegm, taken from a patient with suspicion on tuberculosis, preparation was made and stained by Ziehl-Neelsen. What microscopic picture is seen at confirmation of the supposed diagnosis?

- A. Red bacilli on a green background
- B. Microorganisms with the kernel of ruby-red color and blue cytoplasm
- C. Red bacteria on a white background
- D. Chain like bacilli of violet colour
- E. Thin red bacteria on a blue background

246. Mycobacteria tuberculosis were not revealed in the smear from a phlegm of patient with tuberculosis stained by Ziehl-Neelsen. With the help of what methods the probability of the bacterioscopic revealing of pathogen can be increased?

- A. To prepare preparation of hanging drop
- B. To stain by other method
- C. To prepare preparation of thick drop
- D. To use the luminescent microscopy of hanging drop
- E. By the methods of flotation and homogenization

247. For prevention of what disease (from listed below) a vaccine of alive attenuated bacteria is used?

- A. Tetanus
- B. Botulism
- C. Cougher
- D. Tuberculosis
- E. Diphtheria

248. The pulmonary form of disease was revealed in anamnesis of a patient with tuberculosis. Microscopic examination of phlegm was carried out with the purpose of pathogen determination. What method of staining was used?

- A. Neisser
- B. Gram
- C. Peshcov
- D. Romanovscy-Giemsa
- E. Ziehl-Neelsen

249. Hard phlegmonal infiltrate of dark blue-purple color with numerous fistulas, which excrete a pus with unpleasant smell, was revealed in a neck-jaw region of patient. For confirmation of diagnosis "actinomycosis" during microscopic examination of pus the bacteriologist must reveal:

- A. Druzes
- B. Gram-positive streptococci
- C. Gram-negative diplobacteria
- D. Acid resistance bacilli
- E. Gram-negative diplococci

250. A 16-year-old patient from the countryside has a negative Mantoux test. What should the doctor do?

- A. Repeat the reaction in a month
- B. To carry out tuberculosis serodiagnosis
- C. To quarantine the young man from the collective urgently
- D. To conduct the accelerated tuberculosis diagnostics by Price method

E. To give BCG injection

251. A 6-year-old child with active tubercular process suspected had a diagnostic Mantoux test carried out. What immunobiological preparation was used?

A. Tularin
 B. BCG vaccine
 C. APDT vaccine
 D. Tuberculin
 E. ADT vaccine

252. A vaccination against tuberculosis is planned in a maternity hospital. Which preparation of listed below must be used?

A. BCG vaccine
 B. APDT vaccine
 C. Tuberculin
 D. ADT vaccine
 E. STI vaccine

253. The sputum of a patient with tuberculosis was delivered to bacteriological laboratory. What staining method should be used for microscopic examination of the smears for revealing tuberculosis mycobacteria?

A. Ziehl-Neelsen
 B. Burri-Gins
 C. Zdrodovsky
 D. Gram
 E. Romanovscy-Giemsa

254. Centrifuge urine of a patient with renal tuberculosis suspected was used to prepare a smear. What method of staining should be used for pathogen detecting? A preparation for microscopy was prepared from centrifugate of urine allowance, which was taken from a patient who is suspected on renal tuberculosis. Which method of filling the preparation is used for determining the causative agent?

A. Loeffler's.

B. Burri.
 C. Gram's.
 D. Ziehl-Neelsen's
 E. Ojeshko

255. In the sputum smear stained by Ziehl-Neelsen's method are revealed single or grouping red acid-fast rods. The first growth signs were appeared on nutrient media in 14 days. What species do the microorganisms belong to?

A. Mycobacterium tuberculosis
 B. Yersinia pseudotuberculosis
 C. Histoplasma dubrosii
 D. Klebsiella rhinoscleromatis
 E. Coxiella burnettii

256. Mycobacteria tuberculosis (tbc) stained by Ziehl-Neelsen were not revealed in the smear from a phlegm of patient with tuberculosis. With the help of what methods the probability of the bacterioscopic revealing of pathogen can be increased?

A. Enzyme assay
 B. Biological method
 C. Inoculation of materials on the media of enrichment
 D. Methods of enrichment of material (homogenization and flotation)
 E. Serological methods

257. Examination of the 36-year-old patient's sediment was made. Previous diagnosis is kidney tuberculosis. Cord-factor was not revealed by the Price method during the microscopy, but bacteria with resistance to acids were presented. What examination would confirm or disprove the previous diagnosis?

A. Laboratory animals infection
 B. Toxigenicity study
 C. Phagotyping of the isolated culture
 D. Serological identification of the causative agent
 E. Skin allergy test

258. A child underwent Mantoux test. 24 hours after allergen injection there appeared a swelling, hyperaemia and tenderness. What are the main components of in the development of this reaction?

- A. Granulocytes, T-lymphocytes and Ig G
- B. Mononuclear leukocytes, T-lymphocytes and lymphokines
- C. Plasmatic cells, T-lymphocytes and lymphokines
- D. B-lymphocytes, Ig M
- E. Macrophages, B-lymphocytes and monocytes

259. Red rod-like bacteria formed twisted rodings were revealed by Price method examination of patient's sputum. What substance provides conglutination and wisp-like growth of these bacteria?

- A. RRD
- B. Alttuberculin
- C. Phosphatit (Phtyonic acid)
- D. Tuberculostearic acid
- E. Cord-factor

260. The medical examination of the 1-st form children included Mantoux. 15 children out of 35 had negative reaction. What action should be taken against children with the negative Mantoux test?

- A. Repeat the test
- B. Inject anti-toxic serum
- C. Inject rabies vaccine
- D. Inject BCG vaccine
- E. Examination of the blood serum

261. Druses were revealed in a dark blue-purple color phlegmonal infiltrate with numerous fistulas of patient neck-jaw region after Gram staining and microscopy. They were gram-positive in the center and gram-negative bulb-like. What disease causative agent is it?

- A. Fusobacteriosis

- B. Candidiasis
- C. Tularemia
- D. Brucellosis
- E. Actinomycosis

262. The first form pupils went through a medical examination aimed at selection of children needing tuberculosis revaccination. What test could be used?

- A. Mantoux
- B. Sheek
- C. Skin test with tularin
- D. Burnett
- E. Anthraxin test

263. Mantoux test (with tuberculin) was made to a 10-year-old child. A papule (8 mm in diameter) appeared on the place of injection in 48 hours. What type of hypersensitivity reaction has developed after injection of tuberculin?

- A. Hypersensitivity reaction type IV
- B. Artuse phenomenon type reaction
- C. Serum disease type reaction
- D. Atopic reaction
- E. Hypersensitivity reaction type II

264. The immunity to tuberculosis is preserved until there are live bacteria of vaccine strain in the body after BCG vaccination of infants. Name this kind of immunity.

- A. Non-sterile
- B. Humoral
- C. Type specific
- D. Innate
- E. Crossed

265. A patient is curing from chronic pneumonia for a long time. Red, singly situated (sometimes in small clusters) length about 0.25-0.4 mcm bacilli were revealed during the microscopy of the sputum stained by Ziehl-Neelsen. What disease does the patient have?

- A. Lung tuberculosis
- B. Pneumococcal pneumonia
- C. Lung actinomycosis

D. Flue pneumonia

E. Candidiasis

266. Mantoux test was used for medical examination of pupils. What specific factor the positive reaction cause?

A. T-lymphocytes

B. B-lymphocytes

C. Antibodies

D. Erythrocytes

E. Leukocytes

267. A patient has diagnosis "leprosy" after complex examination. What skin-allergic test was used for the diagnostics?

A. Coombs' test

B. Molonnie's test

C. Deeck's test

D. Mittsude's test

E. Shick's test

268. The 44 yeared milkmaid with complaints to changes in the skin of the neck was consulted by the doctor. The dense blue-claret infiltrate fistula with unpleasant smell pus was formed. The fibrous structure granular formations in diameter 20-50 microns were revealed in the pus during microscopy. What disease can be suspected?

A. Actinomycosis

B. Tularemia

C. Microsporia

D. Anthrax

E. Cryptococcosis

269. Arranged in clusters like the pack of cigars bacillus have been revealed during microscopic examination of biopsy material from the damaged area of oral cavity mucosa. What type of causative agent was in biopsy material?

A. Mycobacterium tuberculosis

B. A. israili

C. Mycobacterium leprae

D. Mycobacterium avium

E. A. bovis

270. The tubercular blebs were appeared on the pulmonary tuberculosis patient's gum jaw region. What method of staining was used for acid fast bacteria revealing?

A. Neisser

B. Gram

C. Ziehl-Neelsen

D. Romanovscy-Giemsa

E. Peshcov

271. It's need to stain the slide with patient's sputum by Ziehl-Nilsen method for "tuberculosis" diagnosis confirmation. The following reagents were prepared for this purpose: carbolic fucine and methylene blue. Which reagent is needed too?

A. 5% sulphuric acid

B. 3% hydrogen peroxide

C. 70% ethyl alcohol

D. Iodine solution

E. Vezuvin

272. The patient's sputum with suspicion on tuberculosis has been delivered to the bacteriological laboratory. The smears need to be stained by Ziehl-Nilsen. Ziehl's fuchine, 5% solution of H_2SO_4 and methylene blue were used. Name the aim of sulphuric acid using.

A. Neutralization of alkaline staining agent

B. Smear staining

C. Decolourisation of the acid sensitive bacteria

D. Increasing the perception of mycobacterium to staining agent

E. Dilution of the sputum

273. The patient's sputum with suspicion on tuberculosis has been collected and delivered to the bacteriological laboratory for bacteriological method. When should these results be ready?

A. In 3-4 weeks

- B. In 3-4 months
 - C. In one week
 - D. In 2 days
 - E. On the next day
274. Calmet and Geren used media with unfavourable substance (bile) for vaccinal strain of tubercular bacillus attenuation. What bacteria properties did they want to change in this way?
- A. Tinctorial
 - B. Antigenic
 - C. Morphological
 - D. Virulent
 - E. Cultural
275. Slide stained by Ziehl-Neelsen was prepared from a patient sputum with suspicion on tuberculosis. What properties of the causative agent will be important for its identification?
- A. Toxigenicity and immunogenicity
 - B. Cultural and enzymatic
 - C. Pathogenic and virulence
 - D. Biological and antigenic
 - E. Morphological and tinctorial
276. The patient's sputum with tuberculosis was sent to a laboratory. Ziehl-Nilsen method was used. For this purpose carbolic fucine, 5% H₂SO₄ and methylene blue were used. What method was used?
- A. Ziehl-Neelsen
 - B. Gins-Burri
 - C. Gram
 - D. Peshkov
 - E. Neisser
277. The proper sequence of staining by Ziehl-Neelsen's method are:
- A. Crystal violet, Alcohol, Safranin
 - B. Ziehl's Fuxin, H₂SO₄, Water, Methylene blue
 - C. Methylene blue, H₂SO₄, Ziehl's Fuxin
 - D. Ziehl's Fuxin, Water, Methylene blue, Alcohol
 - E. Ziehl's Fuxin, H₂SO₄, Methylene

- blue, Water
278. While enrolling a child to school Mantoux's test was made to define whether revaccination was needed. The test result is negative. What does this test result mean?
- A. Absence of antitoxic immunity to the tuberculosis
 - B. Presence of antibodies for tubercle bacillus
 - C. Presence of cell immunity to the tuberculosis
 - D. Absence of cell immunity to the tuberculosis
 - E. Absence of antibodies for tubercle bacillus
279. A consumptive patient has an open pulmonary form of disease. Choose what sputum staining should be selected for finding out the tubercle (Koch's) bacillus?
- A. Method of Ziehl-Neelsen
 - B. Method of Burry-Gins
 - C. Method of Gram
 - D. Method of Romanowsky-Giemsa
 - E. Method of Neisser
280. Tuberculosis can be treated by means of combined chemotherapy that includes substances with different mechanisms of action. What antituberculous medication inhibits transcription of RNA into DNA in mycobacteria?
- A. Streptomycin
 - B. Rifampicin
 - C. Isoniazid
 - D. Ethionamide
 - E. Para-aminosalicylic acid
281. At the study of phlegm, taken from a patient with suspicion on tuberculosis, preparation was made and stained by Ziehl-Neelsen. What microscopic picture is seen at confirmation of the supposed diagnosis?

- A. Red bacilli on a green background
- B. Microorganisms with the kernel of ruby-red colour and blue cytoplasm
- C. Red bacteria on a white background
- D. Chain like bacilli of violet colour
- E. Thin red bacteria on a blue background

282. For prevention of which from the enumerated diseases is a vaccine from living attenuated bacteria are used?

- A. Tetanus
- B. Sausage-poisoning
- C. Whooping-cough
- D. Tuberculosis
- E. Diphtheria

283. The pulmonary form of disease was revealed in anamnesis of a patient with tuberculosis. Microscopic research of phlegm was carried out with the purpose of determination of pathogen. What method of staining was used?

- A. Neisser
- B. Gram
- C. Peshcov
- D. Romanovscy-Giemsa
- E. Ziehl-Neelsen

284. In a sick man hard phlegmonal infiltrate of dark blue-purple color with numerous fistulas, which excrete a pus with unpleasant smell, was revealed in a neck-jaw region. For confirmation of diagnosis "actinomycosis" during microscopic research of pus the bacteriologist must reveal:

- A. Druzes
- B. Gram-positive streptococci
- C. Gram-negative diplobacteria
- D. Acid resistance bacilli
- E. Gram-negative diplococci

285. Specimen of a patient's sputum was stained with the following dyes and reagents Ziehl's solution, methylene blue solution, 5% solution

of sulphuric acid. What staining method was applied?

- A. Peshkov's
- B. Burri's
- C. Ziehl-Neelsen
- D. Gram's
- E. Niesser's

286. Microscopical examination of an infiltrate removed from the submandibular skin area in a 30 y.o. man revealed foci of purulent fluxing surrounded by maturing granulations and mature connective tissue, the pus contains druses consisting of multiple short rod-like elements with one end attached to the homogenous centre. What disease is it?

- A. Angina
- B. Syphilis
- C. Candidosis
- D. Actinomycosis
- E. Tuberculosis

287. A consumptive patient has an open pulmonary form of disease. Choose what sputum staining should be selected for finding out the tubercle (Koch's) bacillus?

- A Method of Gram
- B Method of Romanowsky-Giemsa
- C Method of Ziel-Neelsen
- D Method of Neisser
- E Method of Burry-Gins

288. While registering the child to the school Mantu's test was made to define whether revaccination was needed test result is negative. What does this result of the test mean?

- A Absence of antitoxic immunity to the tuberculosis
- B Presence of cell immunity to the tuberculosis
- C Absence of antibodies for tubercle bacillus
- D Absence of cell immunity to the tuberculosis

E Presence of antibodies for tubercle bacillus

289. Study of bacteriological sputum specimens stained by the Ziel-Neelsen method revealed some bright-red acid-resistant bacilli that were found in groups or singularly. When inoculated onto the nutrient media, the signs of their growth show up on the 10-15 day. These bacteria relate to the following family:

A Yersinia pseudotuberculosis

B Micobacterium tuberculosis

C Histoplasma dubrosii

D Klebsiella rhinoscleromatis

E Coxiella burnettii

290. A 15 y.o. boy from a countryside entered an educational establishment. Scheduled Manteux test revealed that the boy had negative reaction. What are the most reasonable actions in this case?

A To repeat the reaction in a month

B To perform BCG vaccination

C To perform serodiagnostics of tuberculosis

D To isolate the boy temporarily from his mates

E To perform rapid Price diagnostics

291. Microscopy of stained (Ziehl-Neelsen staining) smears taken from the sputum of a patient with chronic pulmonary disease revealed red bacilli. What property of tuberculous bacillus was shown up?

A Alcohol resistance

B Alkali resistance

C Acid resistance

D Capsule formation

E Sporification

292. The first grade pupils were examined in order to sort out children for tuberculosis revaccination. What test was applied for this purpose?

A Schick test

B Mantoux test

C Supracutaneous tularin test

D Burnet test

E Anthraxine test

293. A 10-year-old child had the mantoux tuberculin test administered. 48 hours later a papule up to 8 mm in diameter appeared on the site of the injection. What type of hypersensitivity reaction developed after the tuberculin injection?

A Type II hypersensitivity reaction

B Arthus phenomenon

C Seroreaction

D Atopic reaction

E Type IV hypersensitivity reaction

294. Planned mass vaccination of all newborn 5-7 day old children against tuberculosis plays an important role in tuberculosis prevention. In this case the following vaccine is applied:

A TAB

B Diphtheria and tetanus toxoids and pertussis vaccine

C Diphtheria and tetanus anatoxin vaccine

D Adsorbed diphtheria vaccine

E BCG

Microbiological diagnostics of diphtheria.

Microbiological diagnostics of diseases caused by bordetellas

295. A patient with suspected diphtheria went through bacterioscopic examination. Examination of throat swab revealed rod-shaped bacteria with volutin granules. What etiotropic preparation should be chosen in this case?

A. Interferon

B. Bacteriophage

C. Diphtheria antitoxin

D. Antidiphtheric antitoxic serum

E. Eubiotic

296. Microorganism which is identical to *Corynebacterium diphtheriae* according to morphological and biochemical signs was isolated from the nasopharynx of a 5-year-old child. But this microorganism did not produce exotoxin. As a result of what process can this microorganism become toxigenic?

- A. Passing through the organism of the sensitive animals
- B. Cultivation in the telluric environment
- C. Phage conversion
- D. Chromosome mutation
- E. Growing with antitoxic serum

297. In order to estimate toxigenity of diphtheria agents obtained from patients the cultures were inoculated on Petri dish with nutrient agar on either side of a filter paper strip that was put into the centre and moistened with antidiphtheric antitoxic serum. After incubation of inoculations in agar the strip-like areas of medium turbidity were found between separate cultures and the strip of filter paper. What immunological reaction was conducted?

- A Precipitation gel reaction
- B Coomb's test
- C Agglutination reaction
- D Rings precipitation reaction
- E Opsonization reaction

298. While examining a patient an otolaryngologist noticed hyperaemia and significantly edematous tonsils with a grayish film upon them. Microscopical examination of this film revealed some gram-positive bacilli placed at an angle with each other. What disease might be suspected?

- A Diphtheria
- B Angina
- C Scarlet fever

D Meningococcal nasopharyngitis

E Epidemic parotitis

299. From pharynx of a child with suspected diphtheria a pure culture of microorganisms was isolated. Their morphological, tinctorial, cultural and biochemical properties appeared to be typical for diphtheria causative agents. What study should be conducted in order to draw a conclusion that this is a pathogenic diphtheria bacillus?

- A Estimation of toxigenic properties
- B Estimation of proteolytic properties
- C Estimation of urease activity
- D Estimation of cystinase activity
- E Estimation of ability to decompose starch

300. Inoculum from pharynx of a patient ill with angina was inoculated into blood-tellurite agar. It resulted in growth of grey, radially striated (in form of rosettes) colonies 4-5 mm in diameter. Gram-positive bacilli with clublike thickenings on their ends placed in form of spread wide apart fingers are visible by microscope. What microorganisms are these?

- A *Diphtheria corynebacteria*
- B *Botulism clostridia*
- C Diphtheroids
- D Streptococci
- E Streptobacilli

301. A sample taken from the pharynx of a patient with angina was inoculated on the blood-tellurite agar. This resulted in growth of grey, radially striated (in form of rosettes) colonies up to 4-5 mm in diameter. Microscopically there can be seen gram-positive rods with club-shaped ends arranged in form of spread fingers. What microorganisms are these?

- A. Diphtheroids

- B. Streptococci
- C. Corinebacteria diphtheriae
- D. Clostridium botulinium
- E. Streptobacilli

302. To determine the toxigenicity of diphtheria causative agents isolated from patients, cultures are inoculated onto a Petri dish with nutrient agar on both sides of the centrally located filter paper strip sodden with antidiphtheric antitoxic serum. What must be revealed after cultures incubation in the agar between separate cultures and filter paper strip?

- A. Merging precipitation lines
- B. Crossing precipitation lines
- C. Zones of diffusion opacification
- D. Precipitation lines absence
- E. Precipitation ring

303. In order to estimate toxigenicity of diphtheria agents obtained from patient the cultures were inoculated on Petri dish with nutrient agar on either side of a filter paper strip that was put into the centre and moistened with antidiphtheric antitoxic serum. After incubation of inoculation in agar the strip-like areas of medium turbidity were found between separate cultures and the strip of filter paper. What immunological reaction was conducted?

- A. Agglutination
- B. Coomb`s test
- C. Precipitation in gel
- D. Ring-precipitation
- E. Opsonization

304. The patients usually receive accurately-calculated doses of antitoxic serum. In what activity units the antitoxic antidiphtherial serum is defined?

- A. Flocculation units
- B. International units

- C. Lethal units
- D. Bacteriostatic units
- E. Hemolytic

305. The pure culture of microorganisms was isolated from a child with suspicion on diphtheria. The morphological, tinctorial, cultural and biochemical properties which were typical for diphtheria agent were studied. What examination must be made for the pathogenicity of the diphtheria bacillus revealing?

- A. Urease activity
- B. Proteolytic properties
- C. Toxigenicity properties
- D. Cystine activity
- E. The starch fermentation

306. For diphtheria causative agent isolation the material must be inoculated on such media:

- A. Ploskirev
- B. Roux, Loeffler, blood-tellurite agar
- C. Levin (Endo)
- D. Kitt-Tarocci
- E. Hiss

307. A specific pathogenetic treatment is recommended for a patient with diphtheria. Name this medication.

- A. Antibiotics
- B. Bacteria-phages
- C. Anatoxin
- D. Anti-toxic serum
- E. Sulfanilamides

308. Among the children of a boarding school there are cases of angina. Microscopy of tonsil smears stained by Neisser method revealed yellow rods with dark-brown terminal granules arranged in the form of V, W, and X letters. What infection can be suspected in this case?

- A. Infectious mononucleosis.
- B. Diphtheria.
- C. Listeriosis.
- D. Tonsillitis.

- E. Scarlet fever.
309. What localization of diphtheria is mostly wide-spread now?
- Membranous nasal diphtheria
 - Diphtheritic conjunctivitis
 - Ear diphtheria
 - Faucial diphtheria
 - Surgical diphtheria
310. Anti-toxic serum is used for treatment of:
- Gonorrhea
 - Cougher
 - Dysentery
 - Diphtheria
 - Tuberculosis
311. The toxoid was injected to 20-year-old man. For what disease prevention it was done?
- Tuberculosis
 - Diphtheria
 - Scarlet fever
 - Meningitis
 - Cougher
312. The 5-year-old boy was vaccinated according to plan and get an injection of 1/40 Dlm diphtheria toxin in his forearm during diphtheria epidemy. There was no reaction after 24-48 hours in the place of injection and doctor, who cured the child, was satisfied of this result. What was the purpose of this test?
- Revaccination
 - Anti-toxic immunity estimation
 - Skin allergic test
 - Desensitization
 - Bacteria carrier's revealing
313. Vaccine for diphtheria prevention and antitoxic immunity providing consist of:
- Diphtheria toxoid
 - Small dose of diphtheria toxin
 - Diphtheria toxin and anti-diphtheria serum together
 - Alive weakened diphtheria causative agents
 - Killed diphtheria bacillus
314. A 5 year old girl has high temperature and sore throat. Objectively: soft palate edema, tonsils are covered with grey films that can be hardly removed and leave deep bleeding tissue injuries. What disease is the most probable?
- Lacunar tonsillitis
 - Pharyngeal diphtheria
 - Infectious mononucleosis
 - Vincent's pseudomembranous tonsillitis
 - Necrotic tonsillitis
315. In the smear from the tonsils of a patient with diphtheria suspected there have been revealed blue rods with thickenings on the ends. What method of staining has been used?
- Loeffler's.
 - Ziehl-Neelsen.
 - Gins'.
 - Gram's.
 - Neisser's.
316. Bacillus with thickenings on the ends similar to C.diphtheria stained with methylene-blue were revealed during microscopy. What method must be used for confirming the suggestion additionally?
- Neisser
 - Kozlovskiy
 - Ziehl-Neelsen
 - Zdrodovsky
 - Ozheshko
317. A dentist has revealed the grey films on tonsils of the examined child with suspected atypical form of diphtheria. Slide and inoculation on nutrient mediums were made and toxigenicity of the isolated pure culture

was established. What test was used for diphtheria bacillus toxigenicity study?

- A. Hemolysis
- B. Agglutination
- C. Complement fixation test
- D. Precipitation in gel
- E. Ring precipitation

318. A child with diphtheria diagnosis was delivered into a hospital. What medication for specific therapy you will use?

- A. Anti-diphtheria anti-toxic serum
- B. Diphtheria anatoxin, antibiotic
- C. The “Codivak” vaccine, sulfanilamide
- D. Diphtheria vaccines: APDT, ADT, AD
- E. Diphtheria bacteria-phages

319. The otolaryngologist has revealed hyperemia, edema and the grey films on tonsils of the examined patient. Gram-positive arranged angularly to each other bacilli have been revealed at microscopy. What disease is it?

- A. Meningonopharyngitis
- B. Angina
- C. Scarlet fever
- D. Diphtheria
- E. Epidemic parotitis

320. A group of students must be injected for diphtheria prevention. What preparation must be used for creation of the artificial active immunity?

- A. APDT vaccine
- B. Anti-diphtheria serum
- C. Specific immunoglobulin
- D. Diphtheria anatoxin
- E. Vaccine with inactivated bacteria

321. Antidiphtherial immunity must be examined for necessity of collective vaccination. What examination must be done in this case?

- A. Establish the antitoxins titer in IHAT

B. Check all members for diphtheria bacillus carrying

C. Establish an antibody level against diphtheria

D. Check all medical documentation about vaccination

E. Check the immune status against diphtheria bacillus

322. A passive hemagglutination test was used for level of the anti-diphtheria immunity of child determining. What must erythrocytes should be sensitized by to solve the task?

- A. Hemolytic serum
- B. Diphtheria anti-toxin
- C. Antigens of diphtheria bacillus
- D. Anti-diphtheria serum
- E. Diphtheria toxoid

323. A boy has received the diagnosis “diphtheria” in the children department of infectious hospital. What preparation should be injected first?

- A. Anti-diphtheria anti-toxic serum
- B. Diphtheria anatoxin
- C. APDT
- D. ADP
- E. TABte

324. Dark blue bacilli with thickenings on poles were revealed in the dab made from tonsils incrustation of patient with suspicion on diphtheria. What smear staining method was used?

- A. Loeffler
- B. Burri
- C. Gins
- D. Gram
- E. Neisser

325. The doctor has noticed a grey-yellow films on the examined child tonsils that can be hardly removed. Previous diagnosis is “diphtheria?” has made considering complaints of the patient to pains during swallowing and high temperature. With the help of

what method this diagnosis can be confirmed or disproved?

- A. Biological
- B. Serological
- C. Bacteriological
- D. Allergic test process
- E. Microscopic

326. A pure culture of *C. diphtheriae* was isolated from the patient. What immunologic test should be used for toxigenicity of the bacteria study?

- A. Complement fixation test
- B. Agglutination
- C. Precipitation in agar
- D. Hemagglutination inhibition test
- E. Indirect hemagglutination test

327. An antitoxic antidiphtherial serum was inoculated to a child with diphtheria. A rash on a skin, an itch, turgidities and a pain in joints were appeared in 10 days after injection and protein was revealed in urine. What are the reasons of these phenomena?

- A. Serum disease
- B. Anaphylactic reaction
- C. Atopy
- D. Hypersensitivity of the delayed type
- E. Contact allergy

328. Examining a 6-year-old child a doctor has noticed on pharyngeal tonsils a grayish "pseudo-membrane". Attempt to remove it causes moderate bleeding. Bacterioscopy of tonsils swabs has shown Gram-positive club-shaped bacteria. What symptoms can appear within the next few days without specific treatment?

- A. Papular rash on skin
- B. Pneumonia (Lungs edema)
- C. Very strong attack-like cough
- D. Toxic affection of the cardiac muscle, liver, kidneys
- E. Intermittent fever

329. The microorganisms which is identical to *Corynebacterium*

diphtheriae according to morphological and biochemical signs were isolated from the tonsils of a two-year-old child without planned APDT injection. Gel precipitation reaction with anti-toxic serum had shown negative result. What form of the infectious process can this agent cause in a child's organism if the treatment will not start at the moment?

- A. Unsymptomatic carrying of the bacteria
- B. Light nontoxic disease type
- C. Toxic and complicated disease type
- D. Persist infection

330. Rod-like bacillus with volutin granules were revealed during the patient's smear examination (patient is suspected on diphtheria). What ethiotropic preparation must be chosen in this case?

- A. Bacteria-phage
- B. Anti-diphtheria anti-toxic serum
- C. Diphtheria anatoxin
- D. Eubiotic
- E. Interferon

331. The doctor has suspected a diphtheria in a sick child who had a rise in temperature of a body to 38 degrees, a pain in a throat at swallowing, a face turgidity, adynamy and grey-white films on tonsils,. What microbiological methods can confirm the previous diagnosis?

- A. Microscopic and allergy test
- B. Microscopic + bacteriological
- C. Microscopic + serological
- D. Allergic + serological
- E. Biological + serological

332. From a nasopharynx of the child with suspicion on a diphtheria the pure culture of microorganisms is allocated with morphological, tinctorial, cultural and biochemical properties which are typical for all diphtheria causative

agents were revealed. But isolated culture was not toxic. As a result of what process this culture can become toxic?

- A. Phage conversion
- B. Cultivation on the tellurite media
- C. Putting through the organisms of sensible animals
- D. Fermentation in anti-toxic serum presence
- E. Chromosome mutation

333. Doctor has suspected diphtheria in the sick child. A bacteriological examination was completed and this diagnosis was confirmed. What nourishing media is used for C.diphtheria?

- A. MPB
- B. Endo
- C. Ploskirev
- D. MPA
- E. Roux

334. A patient was admitted to a clinic in grave condition, fever, heavy breathing. Preliminary diagnosis of diphtheria croup was made by the microscopy of throat specimen. What method of staining was used?

- A. Peshkov's.
- B. Ziehl-Neelsen's.
- C. Burri-Gins'.
- D. Neisser's.
- E. Ozheshko's.

335. A specific prophylactics of diphtheria must be made in a kindergarten. Which preparation must be used for this?

- A. Anatoxin
- B. Antibiotics
- C. Probiotics
- D. Corpuscular vaccine
- E. Immune serum

336. The microorganisms, which morphological and biochemical properties looked like diphtheria

bacillus were revealed at bacteriological examination of a material from an oral cavity of the 5 year old boy which in 5 months have made a planned an APDT injection and revaccination when he was 2 years. How can the causative agent's presence inside the immunized child be explained?

- A. Only anti-toxic anti-diphtheria immunity was formed
- B. The APDT vaccine creates unsterile immunity
- C. After APDT injecting immunity lasts not more than for 2 years
- D. Child is suffering from immunodeficiency
- E. Isolated bacteria is a nonpathogenic diphtheroid

337. A patient has intoxication, headache, hyperemia and a pharynx swelling. There are grey films on tonsils which may be hardly deleted. The diagnosis is Diphtheria. What is the main factor of pathogenicity of the causative agent identifies the described symptoms of the disease?

- A. Neuraminidase
- B. Intracellular toxin
- C. Hyaluronidase
- D. Exotoxin
- E. Protease

338. A 20-year-old man was injected with anatoxin in purpose of prophylactics. What disease was the injection against?

- A. Meningitis
- B. Tuberculosis
- C. Scarlet fever
- D. Diphtheria
- E. Cougher

339. A 7 y.o. girl was admitted to the infectious diseases hospital with fever, sore throat, common weaknees. A doctor suspected diphtheria. What

(from listed below) is decisive for the diagnosis confirming after the pure culture of causative agent isolation?

- A. Phagolysability
- B. Cystinase test
- C. Toxicity test
- D. Detection of volutin granules
- E. Hemolytic ability of the causative agent

340. A pure culture from a pharynx of the sick 9 years old child with suspicion on diphtheria was isolated. It was identified as *C. diphtheriae*, nontoxic strain. APDT vaccination was done earlier accordingly to a calendar of injections. What is the most possible reason for the child's anti-bacterial anti-diphtherial immunity absence?

- A. A postvaccinal immunity is anti-toxic
- B. Child has primary immunodeficiency
- C. Child has secondary immunodeficiency
- D. Child has phagocytic immunodeficiency
- E. Revaccination was made by off-grade vaccine

341. A toxic culture of causative agent was isolated from a patient *C.* with the previous diagnosis – diphtheria. It is known, that this activity is connected with diphtheria bacteria lysogenicity. What factor determines the lysogenicity of bacteria?

- A. Antibodies
- B. Antibiotics
- C. Phagocytes
- D. Factors of self-lysis
- E. Temporal phages

342. A fauces smear was taken from patient K. and microslide was stained by Neisser. Which structure components of the diphtheria causative

agents can be discovered during the microscopy of the preparation?

- A. Inclusions
- B. Sarments
- C. Capsules
- D. Pili
- E. Spores

343. *C. diphtheriae* was isolated in the teacher during inspection of bacteria carriers in the children's institutions. *C. diphtheriae* strain did not produce exotoxin. What reaction was used for toxigenicity diphtheria bacillus examination?

- A. Precipitation in agar gel
- B. Ring precipitation reaction
- C. Immunofluorescence reaction
- D. Complement fixation reaction
- E. Agglutination reaction

344. A child is presumably ill with diphtheria. A specimen of affected mucous membrane of his pharynx was taken for analysis. The smear was stained and microscopical examination revealed yellow rods with dark blue thickening on their ends. What structural element of a germ cell was revealed in the detected microorganisms?

- A. Spores
- B. Plasmids
- C. Volutin granules
- D. Capsule
- E. Flagella

345. In order to determine toxigenicity of diphtheria bacilli a strip of filter paper impregnated with antitoxic diphtherial serum was put on the dense nutrient medium. There were also inoculated a microbial culture under examination and a strain that is known to be toxigenic. If the microbial culture under examination produces exotoxin, this will result in formation of:

- A. Haemolysis zones

- B Precipitin lines
- C Zones of diffuse opacification
- D Zones of lecithovitellinous activity
- E Precipitin ring

346. In order to estimate toxigenity of diphtheria agents obtained from patients the cultures were inoculated on Petri dish with nutrient agar on either side of a filter paper strip that was put into the centre and moistened with antidiphtheric antitoxic serum. After incubation of inoculations in agar the strip-like areas of medium turbidity were found between separate cultures and the strip of filter paper. What immunological reaction was conducted?

- A Agglutination reaction
- B Coomb's test
- C Precipitation gel reaction
- D Rings precipitation reaction
- E Opsonization reaction

347. Inoculum from pharynx of a patient ill with angina was inoculated into blood-tellurite agar. It resulted in growth of grey, radially striated (in form of rosettes) colonies 4-5 mm in diameter. Gram-positive bacilli with clublike thickenings on their ends placed in form of spread wide apart fingers are visible by microscope. What microorganisms are these?

- A Diphtheria corynebacteria
- B Botulism clostridia
- C Diphtheroids
- D Streptococci
- E Streptobacilli

348. In order to establish the level of anti-diphtheria immunity in a child it was decided to use a passive hemagglutination test. This task should be completed by the sensibilization of erythrocytes by:

- A. Diphtheria antitoxin
- B. Diphtheria anatoxin

- C. Antigens of diphtheria bacillus
- D. Anti-diphtheria serum
- E. Hemolytic serum

349. In purpose of active prophylactics of diphtheria, tetanus and cougher an APDT vaccine is used. What does this vaccine include and what protects organism from cougher?

- A. Attenuated Bordetella petrusis
- B. Cougher exotoxin
- C. Inactivated Bordetella petrusis
- D. Cougher intracellular toxin
- E. Anatoxin

350. A 5-year-old boy was delivered into a city infectious hospital with the previous diagnosis "cougher". Sputum was taken for a bacteriological examination. Which nourishing media are used for Bordetellas cultivating?

- A. Serum agar
- B. Levin media, Endo media
- C. MPB
- D. Casein-charcoal agar
- E. Tumanskiy media

351. A 5-year-old child is having a cougher clinic symptoms. The pathological material (scrape from pharynx) was inoculated on sugar meat-pepton agar for this diagnosis confirming. No signs of growth appeared in one day. Mark the most possible reason for this.

- A. Wrong pathologic material
- B. Wrong nourishing media
- C. A long period of time from taking the material to seeding
- D. Colonies of cougher causative agent grow only on the 4-th day
- E. This disease is not a cougher, it is a virus respiratory infection

352. The cougher causative agents cultures were isolated from patients. They gave colonies of different types: I phase – smooth, consist of virulent capsulated microorganisms, IV phase –

rough, consist of avirulent non-capsulated microorganisms, II and III phases have average properties. What term characterizes this phenomenon most accurately?

- A. Dissociation
- B. Transformation
- C. Phage conversion
- D. Adaptable change ability
- E. Mutation

353. A patient had high temperature and cough attacks for 10 days. Doctor proposed the inoculation of material from rhinopharynx onto CCA media. What microorganism is supposed to be isolated?

- A. Influenza bacillus
- B. Cougher bacillus
- C. Listeriosis
- D. Staphylococcus
- E. Klebsiella

354. A 4-year-old child has clinical symptoms of cougher. For serological diagnostics of the whooping cough it was made large-scale reaction with parapertussis and pertussis diagnosticums. At the bottom of the test-tubes with diagnosticum of Bordetella pertussis grain-like sediment formed. What antibodies have this reaction revealed?

- A. Agglutinins
- B. Precipitin
- C. Bacteriotropins
- D. Bacteriolysins
- E. Anti-toxins

355. There is a vaccination against the cougher planned in a kindergarten. What preparation is used for this?

- A. Type-specific serum
- B. BCG vaccine
- C. APDT vaccine
- D. Normal (common) gamma-globulin
- E. ADP anatoxin

356. A 6-year-old child has clinical symptoms of cougher (convulsive period). What method of microbiological diagnostics can prove to be the most effective and be used?

- A. Serological
- B. Bacteriological
- C. Biological
- D. Allergic
- E. Microscopic

357. There is an infective cougher episode in the kindergarten. On the background of episode a 4-year-old child got catarrhal phenomenon. Child is sick since second day. What microbiological method is most possibly able to be used for confirming the "cougher" diagnosis in this case?

- A. Allergic
- B. Serological
- C. Microscopic
- D. Biological
- E. Bacteriological

358. For serological diagnostics of the whooping cough it was made large-scale reaction with parapertussis and pertussis diagnosticums. At the bottom of the test-tubes with diagnosticum of Bordetella parapertussis grain-like sediment formed. What antibodies have this reaction revealed?

- A Precipitins
- B Agglutinins
- C Opsonins
- D Bacteriolysins
- E Antitoxins

359. A patient has been suffering from elevated temperature and attacks of typical cough for 10 days. Doctor administered inoculation of mucus from the patient's nasopharynx on the agar. What microorganism is presumed?

- A Pertussis bacillus
- B Pfeiffer's bacillus

- C. Listeria
- D. Klebsiella
- E. Staphylococcus

360. In a kindergarten vaccination against pertussis is planned. Which preparation is used for the immunization?

- A. Type specific serum.
- B. BCG vaccine.
- C. APDT vaccine.
- D. Normal γ -globulin.
- E. ADT vaccine.

Microbiological diagnostics of anaerobic infection.

361. A doctor suspected possible development of wound's anaerobic infection in a patient suffered in accident. What preparation was most expediently to apply for specific treatment before the establishment of laboratory diagnosis?

- A. Bacteriophage
- B. Polivalent specific serum
- C. Typospecific immune serum
- D. Native plasma
- E. Placental gammaglobulin

362. A patient with the shin's gas gangrene was delivered into the surgical department. The etiology was not revealed. What specific treatment should be used for this patient?

- A. To use the polyvalent antitoxic antigangren serum
- B. To make surgical treatment of wound
- C. To prescribe the high doses of sulfanilamid preparations
- D. To make vaccination
- E. To prescribe the high doses of antibiotics

363. During the patient's examination of the jaw-facial necrotic phlegmone a doctor suspected a gas gangrene. The

rod shape grampositive microorganisms were revealed during microscopy of wound's festering allocation. What media is used for the clean culture isolation of the infectious agent?

- A. Media Kitt-Tarozzi
- B. Media Endo
- C. Media Levin
- D. Meat-pepton agar
- E. Milk-salt agar

364. The case of anaerobic infection after the planned surgical operation took place in a hospital. What material should be sent for bacteriological examination for establishment of this case?

- A. Blood
- B. Urine
- C. Bandaging, stitch material (silk, catgut)
- D. Pieces of staggered tissue
- E. Tissue liquid

365. The microorganisms that grew on glucose-blood agar in anaerobic conditions for 7-10 days, were isolated during bacteriological examination from the pus operation wound. They were S-form black brilliant colonies with an unpleasant smell. Polymorphic gramnegative rods were revealed during the microscopy. What microorganisms could cause this process?

- A. Bacteroides
- B. Clostridia
- C. Fuzobacteria
- D. Veilonella
- E. Colon bacilla

366. The gas anaerobic infection of the left lower extremity was suspected at 39 yeared mechanization expert. Clostridium perfringens was isolated from a wound. The determination of

what enzyme has the deciding value during the identification?

- A. Lecitinase C
- B. Deoxyribonuclease
- C. Collagenase
- D. Proteinase
- E. Hyaluronidase

367. A patient with the anaerobic infection of lower extremity in the defeat area has the edema, gasification, necrosis of tissues, general intoxication. What factors of pathogenicity were absent in the infectious agent and do not take part in development of pathology?

- A. Endotoxin
- B. Patogenic enzymes
- C. Hemotoxin
- D. Necrotoxin
- E. Neurotoxin

368. A patient, who had been injured in car accident, was suspected by the doctor to be suffering from a possible wound anaerobic infection. What kind of medication for specific treatment should be applied prior to laboratory diagnosis determination?

- A. Polyvalent specific serum
- B. Bacteriophage
- C. Typespecific immune serum
- D. Native plasma
- E. Placenta hammaglobulinum

369. Antitoxic sera is used for treatment of:

- A. Tuberculosis
- B. Brucellosis
- C. Gonorrhea
- D. Dysentery
- E. Gas gangrene

370. Vaccine is used for the prophylaxis of gas anaerobic infection. It consists of:

- A. Anatoxin
- B. Small dose of toxin
- C. Sera

D. Living gas anaerobic infection agent

E. Killed gas anaerobic infection agent

371. A laboratory received a material from a patient's wound. Preliminary diagnosis is gaseous gangrene. What microbiological method should be applied to determine species of causative agent?

- A Allergic
- B Bacteriological
- C Bacterioscopic
- D Serological
- E RIA

Microbiological diagnostics of tetanus and botulism

372. Microscopical examination of a microbial culture revealed fusiform spore-forming microorganisms that get violet-blue Gram's stain. What microorganisms were revealed?

- A Clostridia
- B Streptococci
- C Spirochaete
- D Actinomycete
- E Diplococci

373. A specimen stained by Ozheshko method contains rod-like microorganisms stained blue with round terminal components stained red. What are these components called?

- A Spores
- B Cilia
- C Flagella
- D Capsules
- E Mesosomas

374. Patient with vomiting, dizziness, sensation of double vision, difficult swallowing was admitted to the hospital. Doctor suspects botulism. What diagnostic methods should be used for diagnosis approving?

A Allergic test, bacteriological

B Allergic test, serological
 C Bacteriological, mycological
 D Protozoological, microscopical
 E Biological test, bacteriological

375. Bacteriological laboratory examines canned meat whether it contains botulinum toxin. For this purpose an extract of test specimen and antitoxic antitoxin serum of A, B, E types were introduced to a group of mice under examination; a control group of mice got the extract without antitoxin serum. What serological reaction was applied?

A Neutralization
 B Precipitation
 C Complement binding
 D Opsonophagocytic
 E Double immune diffusion

376. What group of the vaccine, applied for the tetanus prevention, this preparation does belong to?

A. Inactivated vaccine
 B. Attenuated vaccine
 C. Chemical vaccine
 D. Anatoxin
 E. Genoinjecting vaccine

377. After canned food use a sick man N had diplopia, headache, dysphagia, infrequent breathings, muscular weakness. A diagnosis is botulism. What factor of pathogenicity did these clinical displays of the disease connected with?

A. Plasmocoagulase
 B. Aggressins
 C. Endotoxin
 D. Exotoxin
 E. Fibrinolysin

378. The symptoms of bulbar paralysis appeared in a patient after canned mushrooms meal: ptosis, diplopia, aphonia and dysphagia. Previous diagnosis was botulism. What reaction helps to determine the type of toxin?

A. Reaction of agglutination
 B. Reaction of neutralization
 C. Reaction of precipitation
 D. Reaction of complement fastening
 E. Reaction of immunofluorescent

379. The diagnostics of tetanus were made in a laboratory. What method of sterilization can we use for the killing of the agent of tetanus?

A. Pasterization
 B. Boiling
 C. Tindalization
 D. Dry heat
 E. Autoclaving

380. At a student C. appeared the symptoms of the food poisoning after the canned meat meal in domestic terms: diplopia, violation of language and breathing paralysis. What such symptoms of botulism are conditioned by?

A. By neurotoxin
 B. By histotoxin
 C. Secretion of enterotoxin
 D. Enterotoxic shock
 E. Activation of adenylatocyclase

381. A sick man is hospitalized with complaining on vomiting, dizziness, doubling in eyes, violation of swallowing. A doctor suspected botulism. What methods of diagnostics should be expediently used for confirmation of diagnosis?

A. Protozoologic, microscopic
 B. Allergic test, serologic
 C. Biologic test, bacteriological
 D. Bacteriological, serologic
 E. Bacteriological, micologic

382. For the victim in a motor-car accident with the lower jaw trauma the antitetanus serum was inoculated urgently to a patient. However 2 months later a patient was delivered into infectious department with the symptoms of 'later' tetanus. How

would it be correctly to do the prevention of tetanus to avoid the noted complications?

- A. To use antitetanus human gamagloboulin
- B. To the large dose of antitoxic serum
- C. To conduct the active-passive prevention of tetanus
- D. Blood transfusion
- E. To do autohemotherapy

383. A jerked fish of domestic preparation which caused serious food poisoning was examined in a bacteriological laboratory. Microscopy of the culture isolated on Kitt-Tarozzi medium revealed microorganisms akin to a tennis-racket. What diagnosis is possible?

- A. Tetanus
- B. Salmonellosis
- C. Cholera
- D. Dysentery
- E. Botulism

384. A patient N. was delivered to the hospital with complaints on vomiting, doubling in eyes, headache, violation of swallowing, hard breathing, muscular weakness. A doctor suspected botulism. What methods of diagnostics should be used for confirmation of diagnosis?

- A. Biological test, bacteriological
- B. Allergic test, serologic
- C. Bacteriological, mycologic
- D. Protozoological, microscopic
- E. Bacteriological, serologic

385. During patient's examination a dentist marked a tonic abbreviation of masticatory muscles and opening of mouth was limited. What infectious disease has such symptoms?

- A. Diphtheria
- B. Flu
- C. Tetanus
- D. Leptospirosis

E. Cholera

386. A patient with the opened break of lower jaw was delivered into the stomatology-surgical department. What preparation should be used with the purpose of active immunization against tetanus?

- A. Tetanus anatoxin
- B. Antitetanus immunogloboulin
- C. Antitetanus serum
- D. APDT
- E. Antitetanus vaccine

387. A patient was delivered to a hospital with a previous diagnosis «botulism». What serologic reaction should be used for the botulin toxin's revealing in the examined material?

- A. Reaction of precipitation
- B. Reaction of agglutination
- C. Reaction of complement binding
- D. Reaction of neutralization
- E. Reaction of immunofluorescent

388. 7 days later after the plastic operation made by a dentist, a tetanus appeared at a patient. There was suspicion, that a reason was contaminated by the tetanus infectious agent stitch material which delivered in a bacteriological laboratory for examination. What nourishing media should be used for the primary inoculation?

- A. Kitt-Tarozzi
- B. Loeffler
- C. Levenstain-Iensen
- D. Endo
- E. Ploskirev

389. A bacteriological laboratory conducts a research of canned meat for the presence of botulinum toxin. An extract from the researched material with antitoxic antitoxin serum of A, B, E types was injected to the experimental group of mice. An extract without antitoxic serum was

injected to the control group. What serologic test has been used?

- A. Opsono-phagocytal
- B. Precipitation
- C. Complement's
- D. Neutralization
- E. Doubled immune diffusion

390. The tetanus symptoms appeared at a patient in 7 days after motor-car accident trauma. The course of treatment by an antitoxinum serum was appointed for him and a patient began to convalesce. In two weeks a temperature has risen, lymphatic nodes were multiplied, swelled joints, rash, itch and violation from the side of heart vascular system were appeared in a patient. How the state of a patient is named?

- A. Serum illness
- B. Hives
- C. Anaphilactic shock
- D. Disbacteriosis
- E. Quink's edema

391. The grampositive rods with the terminal located spore that had the appearance of «drumstick» were isolated during the bacteriological examination of stitch material. What type of bacteria has such morphological description?

- A. C.tetani
- B. C.botulinum
- C. B.anthraxis
- D. C.perfringens
- E. Y.pestis

392. The infectious agent of tetanus produces exotoxin with different biological action effects. What clinical symptoms can this toxin cause?

- A. Disorders of vision
- B. Lackjaw
- C. Diarrhea
- D. Rash on a skin
- E. Nausea

393. A patient after infected product use had got the urgent prevention of botulism. Indicate, which from the noted preparations should be used?

- A. Polivalent antitoxic serum
- B. Interferon
- C. Monovalency antitoxic serum
- D. Anatoxin
- E. Placent gammaglobulin

394. A 20 dayed baby has dead after a tetanus infection. Where this infectious agent can be revealed?

- A. Blood
- B. Spinal cord
- C. Umbilical wound
- D. Gastro-intestinal tract
- E. Muscles

395. A patient with botulism's symptoms was delivered to a hospital. C.botulinum toxin was revealed from food stuffs. It is known few people used that meal too. Which preparations must be used for urgent prevention of disease?

- A. Antitoxic serum
- B. Anatoxin
- C. Killed vaccine
- D. Antibiotics
- E. Normal immunoglobulin

396. A patient addressed to the dentists with difficulty of chewing. The doctor guesses tetanus, cause 3 weeks ago the patient unjured his leg with a rusty nail. What material is necessary to send to bac. laboratory to confirm the diagnosis?

- A. Serum of the patient
- B. Blood of the patient
- C. Dab from the surface of wound
- D. Washings from the nail
- E. Necrotic tissue pieces

397. A patient with the previous diagnosis botulism has been hospitalised. What serological reaction should be used to determine

botulinum toxin in test specimens?

- Complement fixation test.
- Agglutination.
- Neutralization.
- Precipitation.
- Immunofluorescence test.

398. After eating canned mushrooms a patient has bulbar paralysis symptoms: ptosis, diplopia, aphonia, and dysphagia. Botulism was previously diagnosed. What test should be used to determine the toxin type?

- Neutralization.
- Agglutination.
- Precipitation.
- Complement fixation test.
- Immunofluorescence test.

399. A jerked fish of domestic preparation which caused serious food poisoning was examined in a bacteriological laboratory. Microscopy of the culture isolated on Kitt-Tarozzi medium revealed microorganisms akin to a tennis-racket. What diagnosis is possible?

- Botulism.
- Salmonellosis.
- Cholera.
- Shigellosis.
- Typhoid fever.

400. The causative agent of tetanus produces exotoxin with different biological action effects. What clinical symptoms can this toxin cause?

- Disorders of vision.
- Lackjaw.
- Diarrhea.
- Skin rash.
- Nausea.

401. A bacteriological laboratory conducts a research of canned meat for the presence of botulinum toxin. An extract from the researched material with antitoxic antitoxin serum of A,

B, E types was injected to the experimental group of mice. An extract without antitoxin serum was injected to the control group. What serologic test has been used?

- Complement fixation.
- Precipitation.
- Neutralization.
- Opsonophagocytic.
- Double immune diffusion.

402. A student, having eaten meat, tinned in domestic conditions, has symptoms of food poisoning, caused by *Clostridium botulinum*: diplopia, dysphasia, respiratory paralysis. What caused such symptoms of botulism?

- Enterotoxin secretion.
- Botulinum invasion into intestinal epithelium.
- Neurotoxin action.
- Endotoxic shock.
- Activation of adenylate cyclase.

403. Jerked fish, being the cause of food poisoning, has been delivered to a bacteriological laboratory. The sample was cultured under anaerobic condition. After inoculation into Kitt-Tarozzi medium a bacteriologist has revealed microorganisms akin to a tennis-racket. What disease do they cause?

- Typhoid fever.
- Salmonellosis.
- Dysentery.
- Staphylococcal toxic infection.
- Botulism.

Microbiological diagnostics of Syphilis

404. A patient had Syphilis 2 years ago. On reproductive organs an ulcer (chancre) was revealed again. What form of infection is it?

- A. Reinfection
 - B. Secondary infection
 - C. Relapsis
 - D. Superinfection
 - E. Autoinfection
405. Wassermann test was positive in 8-monthes pregnancy woman blood serum during preventive examination. How does the authenticity of serologic examination of Syphilis should be confirmed?
- A. Test must be repeated with 10-15 days interval
 - B. Again examination after the got result
 - C. Again examination after treatment
 - D. To use the sedimentary Kann`s test
 - E. To use the sedimentary Zax-Vitebsky test
406. A vein blood was taken for Wassermann test at the planned examination of pregnant woman in maternity welfare centre. The test was positive. The pregnant woman and her husband deny extramarital sexual relations. What should be done for Syphilis confirmation or refutation of diagnosis?
- A. To use the treponema immobilization test
 - B. To take a dab from an urethra
 - C. To repeat the Wassermann test
 - D. To use the sedimentation reactions
 - E. To use the complement binding test
407. A patient with Syphilis has passed complete course of antibiotic therapy and was fully cured. After some time he was infected again with *Treponema pallidum*. How can be named this form of infection?
- A. Complication
 - B. Recidive
 - C. Secondary infection
 - D. Superinfection
 - E. Reinfection
408. What method of serologic examination is not used for Syphilis diagnostics?
- A. Treponema immobilization test
 - B. RMP
 - C. Wassermann test
 - D. Agglutination
 - E. Indirect IF
409. Thin spiral pink microorganisms with 12-14 scrolls and sharp ends were revealed in a regional lymphatic node punctat of patient stained by Romanovscy-Giemza. What disease the infectious agent in this case cause?
- A. Leptospirosis
 - B. Typhus
 - C. Campilobacteriosis
 - D. Sodocu
 - E. Syphilis
410. A 30-year-old patient's Wassermann test is positive (++++). What infectious disease diagnostics is this test used for?
- A. Poliomyelitis
 - B. Brucellosis
 - C. Tuberculosis
 - D. Syphilis
 - E. Influenza
411. The laboratory assistant has taken the blood serum from a patient with previous diagnosed «Syphilis» for the immune test based on antibodies which inhibit the motility of treponemes and kill them revealing. What test has been used for diagnostics?
- A. Immobilization
 - B. Complement binding
 - C. Agglutination
 - D. Precipitation
 - E. Neutralization
412. The pinky spirohaetes were revealed during the microscoping of dabs from shancer of a patient. What method of dab staining was used in this

case?

- A. Romanovsky-Giemza
- B. Burri-Gins
- C. Ziehl-Nilsen
- D. Morozov
- E. Gram

413. A patient was delivered to a hospital with suspicion on Syphilis. What method should be used for detecting the infectious agent in hard shancer?

- A. Microscopy of material stained by Gram's method
- B. To isolate of pure culture
- C. Darkfield microscopy
- D. Wasserman test
- E. Agglutination

414. The laboratory assistant prepared such reagents for Wassermann test: cardiolipid antigen, alcoholic extract of lipids from the cardiac muscle of bull with cholesterol, inactivated by an ultrasound treponema antigen, hemolytic system, NaCl, examined serums. What component should be used for Wasserman test at serologic diagnostics of Syphilis?

- A. Complement
- B. Live treponema
- C. Ram's erythrocytes
- D. Diagnostic serum
- E. Antiglobulin serum

415. The dark-field microscopy of the 28 year old patient shancer was used in the laboratory of dermatovenerologic dispensary. What property of Syphilis treponema was studied?

- A. Active motility
- B. Spiral shape
- C. Number of scrolls
- D. Primary character of scrolls
- E. Secondary character of scrolls

416. What type of serological tests is not used for Syphilis diagnostics?

- A. Microprecipitation test

- B. Wasserman
- C. Immobilization
- D. Indirect IF
- E. Agglutination

417. Microscopy of the specimen of a regional lymph node punctate stained by Romanowsky-Giemsa showed thin microorganisms with 12-14 regular curls and pointed ends of light rose color 10-13 micrometers long. What disease could this agent cause?

- A. Relapsing fever.
- B. Toxoplasmosis.
- C. Leptospirosis.
- D. Syphilis.
- E. Leishmaniasis.

418. A patient with syphilis suspected has arrived to a hospital. What method should be used for detecting the causative agent in hard chancre?

- A. Microscopy of material stained by Gram's method.
- B. Isolation of pure culture.
- C. Using dark-field microscopy.
- D. Wassermann test.
- E. Agglutination test.

419. Wassermann test is positive in a 20-year old man. What infectious disease diagnostics is this test used for?

- A. Brucellosis.
- B. Syphilis.
- C. Tuberculosis.
- D. Poliomyelitis.
- E. Influenza.

420. A laboratory assistant has taken blood serum from a patient with preliminary diagnosed syphilis for the immune reaction based on detecting antibodies, which inhibit the motility of treponemes and lead to their death. What test has been used for diagnostics?

- A. Complement fixation.

- B. Immobilization.
- C. Agglutination.
- D. Precipitation.
- E. Neutralization

421. The patients which have delivered to surgical stomatology department need to give blood for Wassermann test. For what purpose this reaction are used?

- A. Detection of antibodies to Treponema
- B. Detection of antibodies to Typhus agent
- C. Detection of antibodies to HIV
- D. Detection of syphilis agent
- E. Detection of antibodies to hepatitis agents

422. The patients of surgical department need to give blood for Wassermann test. What type of reaction this test belong to?

- A. Immobilization
- B. Complement binding
- C. Agglutination
- D. Precipitation
- E. Neutralization

Microbiological diagnostics of recurrent typhus and leptospirosis

423. In the micropreparation made from patient's regional lymph node punctate and stained by Romanovsky-Giemsa method, the doctor found out thin microorganisms with 12-14 equal ringlets and pale-pink sharp pointes 10-13 mkm in length. Name the pathogen agent.

- A Bartonella bacilliformis
- B. Borrelia dutlonii
- C. Calymmatobacterium granulomatis
- D. Leptospira interrogans
- E. Rickettsia mooseri

424. In the endemic region of leptospirosis the population is ill with

this dangerous illness. What source of the infection is the most dangerous?

- A. Rodents.
- B. Dairy products.
- C. Cattle.
- D. Meat products.
- E. Ticks.

425. A patient was hospitalized on the 5th day of illness with jaundice signs, pain in muscles, rigor, nose bleeding. A bacteriologist used dark-field microscopy. In the patient's blood there have been revealed motile spiral microorganisms. Name the causative agent.

- A. Bartonella bacilioformis.
- B. Borrelia duttoni.
- C. Calymmatobacterium granulomatis.
- D. Leptospira interrogans.
- E. Rickettsia mooseri.

426. A patient with a periodically repeating fever is hospitalized to an infectious department. In blood specimen (a thick drop), stained by Romanovsky-Giemsa method, spiral microorganisms with sharp ends of blue-violet color are revealed. Which disease is caused by this agent?

- A. Relapsing fever.
- B. Typhoid fever.
- C. Malaria.
- D. Epidemic typhus.
- E. Leptospirosis.

427. A man died from an acute infectious disease accompanied by fever, jaundice,

haemorrhagic rash on the skin and mucous membranes as well as by acute renal insufficiency. Histological examination of renal tissue (stained by Romanovsky-Giemsa method) revealed some convoluted bacteria looking like C and S letters. What bacteria were revealed?

- A. Treponema

B. Leptospira

C. Spirilla

D. Borrelia

E. Campilobacteria

428. A sick man with high temperature and a lot of tiny wounds on the body has been admitted to the hospital. Lice have been found in the folds of his clothing. What disease can be suspected in the patient?

A. Scabies

B. Malaria

C. Plague

D. Tularemia

E. Relapsing typhus

429. A patient with the final diagnosis recurrent typhus had delivered to an infectious diseases hospital. What material must be taken first of all?

A. Liquor

B. Urina

C. Blood

D. Excrements

E. Smear from a nasopharynx

430. The population has leptospirosis in the endemic zone of this dangerous disease. What source of this infection can be most probable?

A. Meat products

B. Milk products

C. Horned cattle

D. Rodents

E. Pincers

431. The veterinary surgeon with suspicion on brucellosis was arrived to an infectious diseases hospital. During his examination the diagnosis «Relapsing tick typhus» has been put. What way of transmission the patient could be invaded?

A. Through malarial mosquito sting

B. Through a dog tick sting

C. Through a rural tick sting

D. Through a mosquito sting

E. Through an ixodes tick sting

432. The patient was hospitalized after the fifth day of illness with displays spleen and pains in muscles fever and nasal bleeding. The bacteriologist has performed the dark field microscopy of the patients blood. Name the infection agent.

A. Bartonella bacilliformis

B. Borrelia dutlonii

C. Calymmatobacterium granulomatis

D. Leptospira interrogans

E. Rickettsia mooseri

433. The doctor has revealed blue-violet thread microorganisms with several big twist long from 10 to 30 microns and more at microscopy of blood micropreparation stained by Romanovsky-Giemza. For what infectious disease such microscopic picture is characteristic?

A. Recurrent typhus

B. Syphilis

C. Leptospirosis

D. Tripanosomosis

E. Leshmaniosis

434. Recurrent typhus, caused B. caucasica, meets in the definite areas only. Electorobius tick is transmitter. How is such infection called?

A. Exotic

B. Endemic

C. Sporadic

D. Pandemic

E. Epidemic

435. A sick man with a fever which sometimes repeated been has admitted to the infectious hospital. Blue-violet helical bacteria with sharp ends were revealed in the blood preparation (thick drop) stained by Romanovsky-Giemza. Name the infection agent.

A Bartonella bacilliformis

B. Borrelia dutlonii

C. Calymmatobacterium granulomatis

D. Leptospira interrogans

E. *Rickettsia mooseri*

436. Doctor made clinical diagnosis recurrent typhus to patient. The microscopy was prescribed for laboratory diagnosis confirmation. In which material the infectious agent could be revealed?

A. In urine
 B. In sweat
 C. In blood
 D. In excrement
 E. Smear from a nasopharynx

437. Examined patient has diagnosis "tick typhus". How the patient could be infected?

A. Through malarial mosquito sting
 B. Through a dog tick sting
 C. Through an ixodes tick sting
 D. Through a mosquito sting
 E. Through a rural tick sting

438. The specific prevention of leptospirosis is planned to members of a society "Hunting and fishing". What preparate should be used?

A. Inactivated vaccine of several sera-groups
 B. Live vaccine of several sera-groups
 C. Chemical vaccine
 D. Anatoxin
 E. Antitoxic serum

439. Blue-violet thread spiral microorganisms stained by Romanovsky-Giemza at microscopy of a material from patient with fever. They were identified as *Borrelia recurrentis*. What pathological material was taken?

A. Pus
 B. Blood
 C. Urine
 D. Sputum
 E. Lymph nodes punctate

440. A patient with suspicion on epidemic typhus was admitted to the hospital. Some arachnids and insects

have been found in his flat. Which of them may be a carrier of the pathogen of epidemic typhus?

- A. Lice
 B. Spiders
 C. Houseflies
 D. Bed-bugs
 E. Cockroaches

441. A sick man with high temperature and a lot of tiny wounds on the body has been admitted to the hospital. Lice have been found in the folds of his clothing. What disease can be suspected in the patient?

- A. Scabies
 B. Malaria
 C. Plague
 D. Tularemia
 E. Epidemic typhus

442. Parents with ill child came to the infectionist. They worked in one of the Asian countries for a long time. Child has eathy colored skin, loss of appetite, laxity, enlarged liver, spleen, peripheral glands. What protozoan disease can this child have?

- A. Visceral leishmaniasis
 B. Balantidiasis
 C. Amebiasis
 D. Toxoplasmosis
 E. Lambliasis

443. Patients with similar complaints applied to the doctor: weakness, pain in the intestines, disorder of GIT. Examination of the faeces revealed that one patient with four nucleus cysts should be hospitalized immediately. For what protozoa are such cysts typical?

- A. Dysenteric amoeba
 B. Intestinal amoeba
 C. Balantidium
 D. Trichomonas
 E. Lamblia

444. 2 weeks since the blood

transfusion a recipient has developed fever. What protozoal disease can it be?

- A. Trypanosomosis
- B. Malaria
- C. Amebiasis
- D. Toxoplasmosis
- E. Leishmaniasis

445. A malarial plasmodium (haemamoeba) - the pathogene of vivax malaria - has two strains: southern and northern. They differ by the duration of their incubation period: the southern has short and the northern - long one. What selection works in this case?

- A. Cutting
- B. Stabilizing
- C. Artificial
- D. Moving
- E. Sexual

446. A patient who came to the doctor because of his infertility was administered to make tests for toxoplasmosis and chronic gonorrhoea. Which reaction should be performed to reveal latent toxoplasmosis and chronic gonorrhoea in this patient?

- A. RIHA - Reverse indirect hemagglutination assay
- B. IFA - Immunofluorescence assay
- C. RDHA - Reverse direct hemagglutination assay
- D. Immunoblot analysis
- E. (R)CFT- Reiter's complement fixation test

447. A journalist's body temperature has sharply increased in the morning three weeks after his mission in India, it was accompanied with shivering and bad headache. A few hours later the temperature decreased. The attacks began to repeat in a day. He was diagnosed with tropical malaria. What stage of development of Plasmodium is infective for anopheles-female?

- A. Sporozoites
- B. Shizontes
- C. Gametocytes
- D. Merozoites
- E. Microgamete

448. Slime, blood and protozoa 30-200 microns of length have been revealed in a man's feces. The body is covered with cilia and has correct oval form with a little bit narrowed forward and wide round shaped back end. On the forward end a mouth is visible. In cytoplasm there are two nucleuses and two short vacuoles. For whom are the described attributes typical?

- A. Balantidium
- B. Lamblia
- C. Intestinal amoeba
- D. Trichomonas
- E. Dysenteric amoeba

449. A businessman came to India from South America. On examination the physician found that the patient was suffering from sleeping-sickness. What was the way of invasion?

- A. Through dirty hands
- B. With contaminated fruits and vegetables
- C. As a result of mosquito's bites
- D. After contact with a sick dogs
- E. As a result of bug's bites

450. A patient has been brought to the hospital with the complaints of headache, pain in left hypochondrium. He has been ill for 1,5 weeks. The sudden disease began with the increase of body temperature up to 39,9⁰C. In 3 hours the temperature decreased and hydroipoiesis began. The attacks repeat rhythmically in 48 hours. The patient had visited one an African country. The doctors have suspected malaria. What method of laboratory diagnostics is necessary to use?

- A. Urine examination
- B. Examination of vaginal and urethral discharge
- C. Stool examination
- D. Blood examination
- E. Immunological tests

451. A woman who was infected with toxoplasmosis during the pregnancy has a child with multiple congenital defects. This is a result of:

- A. Teratogenesis
- B. Chemical mutogenesis
- C. Biological mutogenesis
- D. Recombination
- E. Cancerogenesis

452. A duodenal content smear of a patient with indigestion contains protozoa 10-18 μm large. They have pear-shaped bodies, 4 pairs of filaments, two symmetrically located nuclei in the broadened part of body. What kind of the lowest organisms is it?

- A. Balantidium
- B. Intestinal amoeba
- C. Dysentery amoeba
- D. Trichomonas
- E. Lamblia

453. Slime, blood and protozoa 30-200 microns long have been revealed in a man's feces. The body is covered with cilia and has correct oval form with a little bit narrowed anterior and wide round shaped posterior end. At the anterior end a mouth is visible. In cytoplasm there are two nuclei and two short vacuoles. What are the described features typical for?

- A. Lamblia
- B. Balantidium
- C. Trichomonas
- D. Dysenteric amoeba
- E. Intestinal amoeba

454. A woman with complaints characteristic of inflammatory process in vagina has referred to a

gynecologist. Which protozoa can it be caused by?

- A. Trichomonas vaginalis.
- B. Toxoplasma gondii.
- C. Plasmodium malariae.
- D. Entamoeba coli.
- E. Lamblia intestinalis

455. A duodenal content smear of a patient with indigestion contains protozoa 10-18 μm large. They have pear-shaped bodies, 4 pairs of filaments, two symmetrically located nuclei in the broadened part of body. What kind of the lowest organisms is it?

- A. Lamblia
- B. Dysentery amoeba
- C. Trichomonas
- D. Intestinal amoeba
- E. Balantidium

456. Giemsa stained protozoa, which have half moon shape with acuminate ends, blue cytoplasm and ruby-red nucleus, were revealed during microscopical examination of spinal liquid smears. What protozoal disease can it be?

- A. Leishmaniasis.
- B. Malaria.
- C. Toxoplasmosis.
- D. Trypanosomiasis.
- E. Amoebiasis.

457. What are the ways of infection at malaria?

- A. Alimentary.
- B. Droplet-aerogenic.
- C. Transmissive.
- D. Contact.
- E. Dusty-aerogenic.

458. 32 year old woman with asymptomatic disease had second dead child was borned with microcephaly. What disease can it be?

- A. Listeriosis
- B. Brucellosis
- C. Histoplasmosis

D. Toxoplasmosis

E. Syphilis

459. Patients had come to the doctor with similar symptoms: weakness, intestinal pain, alimentary tract disorders. One of the patients needs urgent hospitalization, because after feces examination four nuclear cysts were revealed. For which protozoa these cysts are typical?

A. Trichomonas

B. Lamblia

C. Amoeba dysenteric

D. Balantidium

E. Amoeba intestinal

460. Protozoa were revealed during an examination of the patient's Giemsa stained blood smear. The doctor put diagnosis: Crus-Chagas disease. What is the pathogen of the disease?

A. Leishmania tropica.

B. Toxoplasma gondii.

C. Leishmania donovani.

D. Trypanosoma crusi.

E. Trypanosoma brucci.

461. The woman with symptoms similar to the inflammatory process of the vagina has addressed to the gynecologist. What protozoa can be a pathogen of the disease?

A. Trichomonas vaginalis.

B. Toxoplasma gondii.

C. Plasmodium malariae.

D. Entamoeba coli.

E. Lamblia intestinalis.

462. The pregnant woman with complains, similar to the toxoplasmosis, has addressed to the doctor. The blood examination was proposed to confirm a clinic diagnosis. What serological reaction must be done in this case?

A. Complement fixation test.

B. Precipitation test.

C. Neutralization test.

D. Widal reaction

E. Wassermann reaction

463. Giemsa stained protozoa, which have half moon shape, protoplasm is colored blue, nucleus is colored red, were revealed during microscopical examination of the blood smear. What protozoa can be a pathogen?

A. Toxoplasma.

B. Trypanosome.

C. Leishmania.

D. Lamblia.

E. Balantidium.

464. A patient has addressed to the doctor. The doctor detected painless ulcers, covered by brown-red peels on the opened parts of the body. A surface, covered by granulation was under the ulcers. Round and oval microorganisms were revealed during Giemsa stained micropreparation microscopical examination. The disease lasts more then year. What protozoa can be a pathogen of the disease?

A. Trichomonas hominis.

B. Leishmania tropica var. major.

C. Leishmania donovani.

D. Lamblia intestinalis.

E. Leishmania tropica var. minor.

465. Round form microorganisms which cytoplasm has erythrocytes and small-shaped, four nucleus cysts were revealed during microscopical examination of native preparation from patient's feces. Feces have bloody-mucus consistency. What is the pathogen of the disease?

A. Entamoeba histolytica.

B. Entamoeba coli.

C. Lamblia intestinalis.

D. Trichomonas intestinalis.

E. Leishmania donovani.

466. A patient has addressed to the doctor because of his infertility. The

patient was appointed to toxoplasmosis and chronic gonorrhoea examination. What reaction must be done to detect hidden toxoplasmosis and chronic gonorrhoea in this patient?

- A. Immunofluorescence reaction.
- B. CBT.
- C. Immunoblotting.
- D. Reversed passive hemagglutination test
- E.

Countercurrent immunoelectrophoresis.

467. Patient H., 40 years old came back home after some month swimming in Western Africa. He felt weakness, headache, fever 15 days. The doctor put diagnosis: malaria. What method of laboratory examination can confirm this diagnosis?

- A. Microscopical, serological.
- B. Bacteriological, allergic.
- C. Bacterioscopical, biological.
- D. Serological, biological.
- E. Microscopical, cultural.

468. A patient with inflammation of bile ducts has entered the gastroenterological department. Lively protozoa which have pear shape, two nuclei and have supporting rod-axostyle were revealed in bile portions. What protozoa disease can it be?

- A. Lamblia.
- B. Amoebiasis intestinal.
- C. Balantidiasis intestinal.
- D. Dysentery
- E. Trichomoniasis.

469. Indirect Immunofluorescence reaction was used to toxoplasmic antibodies detecting in the patient's blood serum. The first step is to cover fixed toxoplasmic smear by experimental serum. By what will you cover your preparation at the second step?

- A. Fluorescein solution.

- B. Fluorescent serum against human immunoglobulin.

- C. Human immunoglobulin of normal serum.

- D. Diagnostical serum, which has toxoplasmic antibodies.

- E. Fluorescein labeled toxoplasmic antibodies serum.

470. A patient with a liver suspicion has entered the surgical department of the hospital. The patient was at the business trip in the one African country for a long period and he had acute forms of alimentary tract diseases many times. What protozoal disease can it be?

- A. Leishmaniasis.
- B. Trypanosomiasis.
- C. Malaria.
- D. Amoebiasis
- E. Toxoplasmosis.

471. Protozoa, which size are 10-18 μm , were revealed in the duodenum content smear. The body has pear shape, four pairs of flagella. There are two symmetrically located nuclei in the front enlarged part of the protozoa body. What protozoa can it be?

- A. Amoeba dysenteria
- B. Balantidium.
- C. Amoeba intestinal
- D. Lamblia.
- E. Trichomonas.

472. Patient C., referred to the infectious department of the hospital with his skin ulcer, which appeared 3 months ago during his trip to Middle Asia country. Lanceolated protozoa with flagellas were revealed after ulcer material on blood defibrinated agar inoculation. What protozoa can it be?

- A. Trichomonas vaginalis.
- B. Leishmania donovani.
- C. Toxoplasma gondii.
- D. Lamblia intestinalis.

E. *Leishmania tropica*.
473. Toxoplasmosis was suspected in the newborn. Enzyme linked immunosorbent assay was used for specific antibodies detection in the umbilical blood. Presence of what immunoglobulin will confirm intrauterine infection?

- A. IgA.
- B. IgM.
- C. IgG.
- D. IgD.
- E. IgE.

474. Patient H with complains for prostate pains and large excretion from urethra has addressed to the infectionist. The doctor thinks that it is trichomoniasis. What method of laboratory examination can confirm this diagnosis?

- A. Enzyme-linked immunosorbent assay, ELISA, for antibodies detection
- B. Immunofluorescence reaction for antigen detection.
- C. An allergic test
- D. Excretion smear microscopical examination.
- E. Bacteriological test.

475. Two weeks after hemotransfusion a patient had fever. What protozoal disease can be suspected?

- A. Leishmaniasis.
- B. Trypanosomosis.
- C. Malaria.
- D. Amoebiasis
- E. Toxoplasmosis.

Microbiological diagnosis of chlamidiosis, mycoplasmosis and rickettsiosis

476. The patient with clinical signs of Mycoplasmosis was examined. The diagnosis was confirmed by bacteriologic method in a patient with the clinical signs of mycoplasmosis.

Mycoplasma was not revealed after second time pathological material inoculation onto the media. Possible reason of negative result is wrong prepared culture medium. Absence of what substance in culture medium would be the most possible reason of negative result?

- A. Agar-agar
- B. Axerophthol (retinol)
- C Glycerine
- D. Glucose
- E. Cholesterol

477. Bacteriologic examination of urethral discharge of 40-year-old man with chronic inflammation of urinary-genital system was performed. After the inoculation of pathological material onto the serum agar with cholesterol, small colonies with a dense center ingrown into culture medium and with semiluent periphery grown were appeared. What causative agent it was?

- A. Chlamydia
- B. Gonococci
- C. Mycobacterium
- D. Gardnerella
- E. Mycoplasma

478. 11-year-old girl, who cared for the animals in a school "live corner", has a flu like disease (weakness, fever, loss of appetite and great headache). The symptoms of bronchopneumonia appeared later. The causative agent was revealed after patient's blood injection of chicken embryos into a yolk sac. Skin test with chlamidin was positive in this sick girl and in three schoolboys, that worked in a «alive corner». What animal could be the most possible source of this infection?

- A. Hamsters
- B. Rabbits
- C. Parrots
- D. Tortoises

E. Cats

479. The cytoplasmic inclusions in the form of a typical little “cap” above the nucleus of the cell were revealed in the epithelial cells during the microscopy of urethral smears. What disease should be surmised?

- A. Chlamydiosis
- B. Gonorrhoea
- C. AIDS
- D. Syphilis
- E. Genital herpes

480. The epithelial cells with reticular and elementary bodies stained by Romanovsky-Giemsa were revealed during microscopy of scrape of mucous membrane of a patient with urogenital infection. Which pathogenic microorganism is it?

- A. Mycoplasmas
- B. Chlamydiae
- C. Rickettsia
- D. Viruses
- E. Fungi

481. Chlamydia trachomatis was isolated from the genital tract of 35-year-old man with chronic urethritis. What other organs can be infected by this causative agent?

- A. Gastrointestinal tract
- B. Kidneys
- C. Joints
- D. Central Nervous System
- E. Eyes

482. What research method is the most informative at the control of Chlamydia infection treatment?

- A. Determination of antibody titer in ELISA
- B. Direct IF
- C. PCR
- D. Western blot
- E. Microscopic smears

483. Pneumonia of mycoplasma etiology was diagnosed in a patient.

Antibiotic with what mechanism of action should not be used for treatment?

- A. Antibiotics inhibiting synthesis of cellular wall
- B. Antibiotics disturbing the permeability of plasma membrane
- C. Antibiotic disturbing protein synthesis
- D. Antibiotic disturbing nucleic acids synthesis
- E. Antibiotic disturbing the oxidative phosphorylation

484. A 30-year-old man has urethritis and prostatitis. With the aim of microbiological diagnostics culture isolation was performed. The growth of causative agent was achieved only on the culture medium with 10 % urine addition. What group of microorganisms does a causative agent belong to?

- A. Chlamydia
- B. Neisseria
- C. Mycoplasma
- D. Gardnerella
- E. Staphylococci

485. A patient with an urethritis within a week independently treated oneself by the penicillin, but the state of patient did not improve. The bacteriological examination showed that a causative agent is mycoplasma. Why medications accepted by the patient were not effective?

- A. Membrane of mycoplasma contains cholesterol
- B. Causative agent multiplies inside the cell
- C. Mycoplasma produces the enzyme destroying penicillin
- D. Mycoplasma does not have a cellular wall
- E. Mycoplasma does not form corresponding transport proteins

486. A patient with suspected rickettsiosis was delivered to the hospital. What method of diagnostics must be applied for confirmation of diagnosis?

- A. Cultivation in a chicken embryo
- B. Microscopic
- C. Cultivation on the artificial nourishing media
- D. Serological
- E. Biological

487. The method more frequently used in bacteriological laboratory for diagnostics of the epidemic spotted fever is:

- A. Serological method
- B. Infection cells cultures
- C. Infection chicken embryos
- D. Bacteriological method
- E. Allergic method

488. The 73-year-old woman has shallow descents on a skin, high temperature and dizziness. Chicken embryos yolk sack infection with blood of the patient showed the presence of ultrafine Gram-negative bacillary and coccoidal form microorganisms. The reaction of Weigl-Felix is positive. In childhood the patient had typhus, but she does not remember which one. What method of diagnostics will allow to find out if this disease is epidemic spotted fever or Brill disease?

- A. Infection laboratory animals
- B. Reaction of complement binding with the paired sera
- C. Reaction of microagglutination
- D. Allergic skin test
- E. Definition IgM and IgG

489. A patient has diagnosis Brill disease as a result of blood serological examination. What microorganism is the agent of this disease?

- A. Rickettsia prowazekii
- B. Pseudomonas aeruginosa

- C. Salmonella typhi
- D. Borrelia recurrentis
- E. Pneumocystis carini

Mycological diagnostics of a candidiasis and mycosis

490. A child with clinical signs of candidiasis was hospitalised to the clinic. What laboratory examination is necessary for the diagnosis "candidiasis" confirmation?

- A. Microscopical, mycological
- B. Allergic, mycological
- C. Histological, mycological
- D. Biological, mycological
- E. Serological, mycological

491. A pregnant woman complained of itching and genital tracts discharges. Bacterioscopy of vaginal discharges smear showed big Gram-positive oval oblong cells which form pseudomycelium. What is the most possible way of transmission?

- A. Sexual
- B. Endogenous infection
- C. Contact indirect
- D. Transmissive
- E. Wound infection

492. Microscopy of the smear of vaginal discharges of a woman with chronic colpovaginitis revealed round and oval budding cells 3-6 micrometers in size. Name the fungal disease, which can be caused by these microorganisms.

- A. Epidermophytium.
- B. Coccidiosis.
- C. Candidosis.
- D. Microsporia.
- E. Cryptococcosis.

493. Choose among mentioned below the most probable reasons of acute pseudomembranous candidiasis (milky disease) development.

- A. Long antibiotic therapy

- B. Immunodeficiency of B-system immunity
- C. Long immunomodulating therapy
- D. Chronically inflammatory processes
- E. Atopic status
494. A whitish touch scraping from an oral cavity mucous membrane was directed to the laboratory. As a result of microscopic examination it has been found out, that the microorganism belongs to the list of opportunistic mycoses agents. What of the resulted microorganisms is the contagious mycosis agent, instead of an opportunistic one?
- A. *Microsporum canis*
- B. *Aspergillus niger*
- C. *Candida albicans*
- D. *Pneumocystis carinii*
- E. *Mucor mucedo*
495. Gram-positive big oval budding cells which are located chaotically and in the form of chains were revealed from mucous membranes and sputum of the patient who used immunosuppressants long time. What agent has been isolated?
- A. Actinomycetes
- B. Streptobacterii
- C. Yersinii
- D. Candida
- E. Streptococci
496. The oral cavity candidiasis was diagnosed in the child. What preparation is used for candidiasis treatment?
- A. Nystatin
- B. Gentamycin
- C. Penicillin
- D. Tetracyclin
- E. Cyfran
497. Whitish exudates which remind curds milk was revealed in the child's cheeks mucosa and tongue. Gram-positive, oval yeast were revealed in preparations-dabs. Name this agent.
- A. Fuzobacterii
- B. Staphylococci
- C. Diphtheroides
- D. Actinomycetes
- E. Candida
498. A child was hospitalized to a clinic. On the mucous membrane of cheeks, palate, and tongue there was revealed white and yellowish fur typical of candidiasis. What material should be taken for examination?
- A. White exudates (plaques) from different sites of oral cavity.
- B. Hair and nails.
- C. Blood.
- D. Mucus from nasopharynx.
- E. Urine.
499. The scraping of albescent fur from oral cavity mucous membranes was sent to a laboratory. The material was inoculated onto Sabouraud's medium. Sour cream-like colonies' growth was revealed. Bacterioscopic method has shown short budding strings. What group of infections can we refer this disease to?
- A. Mycosis.
- B. Spirochetosis.
- C. Rickettsiosis.
- D. Mycoplasmosis.
- E. Chlamidiosis.
500. The dark purple, oval, roundish, budding cells were revealed at microscopy of scrape from a tongue surface stained by Gram's method. What disease agent is it?
- A. Diphtheria
- B. Actinomycosis
- C. Streptococcal infection
- D. Staphylococcal infection
- E. Candidiasis
501. After long antibiotic therapy a mouth mucous membrane sites with

white fur which did not deleted with spatula have been revealed in patient. For what disease such signs are characteristic?

- A. Parodontitis
- B. Parotitis
- C. Candidiasis
- D. Flue
- E. Typhus

502. A pediatrician examining a child has noticed that the mucous membrane of the oral cavity and the tongue are covered with dense whitish fur. In the material taken from the site of affection a bacteriologist has revealed yeast. What mycosis will he suspect in this case?

- A. Actinomycosis.
- B. Favus.
- C. Epidermophytia.
- D. Candidiasis.
- E. Trichophytosis

503. The white creamy plaques which easily deleted leaving blood erosion have been revealed on a mouth mucous membrane of pupil C during routine inspection of schoolboys by the doctor-stomatologist. The doctor has suspected pseudomembranous candidiasis and has appointed to the patient mycological examination. What of the listed nutrient mediums should be used for revealing of the candidiasis agent?

- A. Saburaud
- B. Roux
- C. Endo
- D. Kitt-Tarozzi
- E. Hiss

504. Patient T, 68 years old, has passed a long course of antibiotic. After treatment the patient had a white fur on an oral cavity mucous membrane. Microscopic studying of dabs prepared

from fur has revealed large, roundish, Gram positive various sizes microorganisms. What it is necessary to make for continuation of microbiological diagnostics?

- A. Yolk-salt agar inoculation
- B. Ploskirev agar inoculation
- C. Kitt – Tarozzi media inoculation
- D. Endo agar inoculation
- E. Saburaud agar inoculation

505. The oral cavity candidiasis is diagnosed in the child. What preparation should be used for candidiasis treatment?

- A. Cifran
- B. Gentamycin
- C. Penicillin.
- D. Tetracyclin
- E. Nystatin

506. The patient had a sensation of burning in a mouth, his tongue was covered with dense whitish cheese like fur. The milk disease was diagnosed. What preparation should be used for treatment?

- A. Grizeofulvin
- B. Nystatin
- C. Gentamycin
- D. Amfotericin
- E. Tetracyclin

507. A child was hospitalized to a clinic. On the mucous membrane of cheeks, palate, and tongue there was revealed white and yellowish fur typical of candidiasis caused by *Candida albicans*. What of the listed preparations is used for candidiasis treatment?

- A. Penicillin
- B. Cifran
- C. Nystatin
- D. Gentamycin
- E. Tetracyclin

508. Microscopic examination of a Gram-stained scrape from patient's

tongue revealed oval, round, elongated chains of dark-violet gemmating cells. What disease can be caused by this causative agent?

- A. Actinomycosis
- B. Candidosis
- C. Streptococcic infection
- D. Staphylococcic infection
- E. Diphtheria

509. A child was hospitalized to a clinic. On the mucous membrane of cheeks, palate, and tongue there was revealed white and yellowish fur typical of candidiasis. What material should be taken for examination?

- A. White exudates (plaques) from different sites of oral cavity
- B. Hair and nails.
- C. Blood.
- D. Mucus from nasopharynx.
- E. Urine.

510. A pediatrician examining a child has noticed that the mucous membrane of the oral cavity and the tongue are covered with dense whitish fur. In the material taken from the site of affection a bacteriologist has revealed pseudohypha. What mycosis will he suspect in this case?

- A. Actinomycosis.
- B. Favus.
- C. Epidermophytia.
- D. Candidiasis.
- E. Trichophytosis

511. The scraping of albescent fur from oral cavity mucous membranes was sent to a laboratory. The material was inoculated onto Sabouraud's medium. Sour cream-like colonies' growth was revealed. Bacterioscopic method has shown short budding strings. What group of infections can we refer this disease to?

- A. Mycosis.
- B. Spirochetosis.
- C. Rickettsiosis.
- D. Mycoplasmosis.
- E. Chlamidiosis.

512. On the mucous membrane of cheeks and tongue of a child albescent stains were revealed. In the prepared smears Gram-positive oval yeast-like cells are found. What causative agent is this?

- A. *Corinebacterium diphtheriae*.
- B. Staphylococci.
- C. Fungi of *Candida* genus.
- D. Actinomycetes.
- E. Fusobacteria.

513. A pregnant woman complained of itching and genital tracts discharges. Bacterioscopy of vaginal discharges smear showed big Gram-positive oval oblong cells which form pseudomycelium. What is the most plausible causative agent of the disease?

- A. Staphylococci.
- B. Fungi of *Candida* genus.
- C. Streptococci.
- D. Diplococci.
- E. *Sarcina*.

514. Candidosis is diagnosed in a child. What preparation should be used for treatment?

- A. Cifran.
- B. Gentamycin.
- C. Penicillin sodium salt.
- D. Tetracycline hydrochloride.
- E. Nystatin

515. Scraps of the mycelium of a fungus, spores, air bubbles and fat drops were discovered on microscopy of the patient's hair excluded from the infected areas. For what fungus disease is this microscopic picture characteristic?

- A. Favus
- B. Microspory

C. Trichophytosis

D. Epidermophytosis

E. Sporotrichosis

516. A doctor asked the patient, the skin of the scalp which were affected area of hair chippy near the skin surface. Small spores were revealed inside the hair at microscopy. Which disease is it?

A. Rubromycosis

B. Favus

C. Trichophytia

D. Candidosis

E. Microsporia

517. 40 year old man has the damaged areas between the toes on his feet: skin get wet, peel, crack appeared. When sowing scrapes skin. The fluffy white top and a greenish-yellow underneath colonies were grown on Sabouraud media. Conidium as "cudgel" with 1-5 cells is visible in smears from the top of the colony. What other organs most likely can affect this fungus?

A. Mucous of genitalies

B. Hair

C. Under the skin tissue

D. Lymphatic vessels

E. Nails

518. A doctor revealed threads of mycelium showed double-circuit, as round and square disjuncts at microscopy of affected areas epidermis pieces of skin taken from the interdigital folds and soles of patients (coal miners). A fungal pathogen of which disease may be referred to in this case?

A. Microsporia

B. Candidosis

C. Trichophytia

D. Epidermophytia

E. Scabiasis

519. A dense whitish fur which easily deleted was revealed in the oral cavity

after long-term treatment with ceftriaxone. Smear microscopy revealed large round cells with a nucleus. Which media are used for agent isolation?

A. MPA

B. Nutrient agar

C. Sabouraud

D. Yolk salt agar

E. Roux

520. Man 70 y.o. developed prosthetic stomatitis. In addition, there was pronounced corners of mouth lesions. What microorganisms most likely were the leading etiological factor for this injury?

A. Streptococci

B. Staphylococci

C. Neisseria

D. Candida

E. Clostridium perfringens

521. Dentist suspected Candida etiology stomatitis in children 4 years old and appointed microscopic study. What are the structures that can be found in the smears from the damaged mucosa, confirm the preliminary diagnosis?

A. Cells that form buds

B. Ovoid cells formed ascospores

C. Branching threads

D. Long cells form pseudohypha

E. Small spores

522. Select from the following below the most likely causes of acute pseudomembranous candidiasis (thrush).

A. Chronic inflammation

B. B-system immunodeficiency

C. Long-term immunomodulatory therapy

D. Prolonged antibiotic therapy

E. Atopic state

523. Pseudohypha was revealed in a smear of the studied material taken

from patients with suspected fungal infection. What micro organism is it?

- A. Aspergillus
- B. Penicillum
- C. Candida
- D. Actinomyces
- E. Mycobacterium

524. Prolonged use of antibiotics in the patient K., 43 years, causing oral mucosa candidiasis. What type of Candida most commonly causes oral candidiasis?

- A. S.aureus
- B. C. tropicalis
- C. C.albicans
- D. S.pyogenes
- E. C.pylori

525. After continuous treatment with antibiotics a patient got symptoms of stomatitis. Examination of specimens of oral mucous membrane revealed some oval polymorphous Gram-positiv microorganisms arranged in clusters. What microorganism may be the cause of such manifestations?

- A. S.aureus
- B. C. tropicalis
- C. C.albicans
- D. S.pyogenes
- E. C.pylori

Methods of viruses cultivation, indication and identification

526. Viruses don't have a cellular structure, but they carry the basic functions of living organisms. What features of living organisms are typical for?

- A. Heredity, variation, capacity for reproduction
- B. Parasitic mode of existence, heredity, variability, inability to binary fission
- C. Parasitic mode of existence, heredity, variation, the ability to have only one type of nucleic acids
- D. Heredity, capacity for reproduction, parasitic way of existence, the ability to have only one type of nucleic acids
- E. The ability to have only one type of nucleic acid, variability, capacity for reproduction, parasitic way of existence

527. Viruses belong to the Vira kingdom . What characteristics distinguish them from viruses pro-and eukaryotes?

- A. Do not have a cell structure capable of growth and binary fission have only one type of nucleic acids

B. Do not have a cellular structure, not capable of growth and binary fission, they have only one type of nucleic acids

C. They have both types of nucleic acids, have no cell structure, not capable of binary fission

D. They able to grow and to binary fission, have cellular structure, have only one type of nucleic acids

E. Do not have a cellular structure, have both types of nucleic acids, capable of growth and binary fission

528. Dimensions of virions different viruses vary widely:

- A. From 45 to 500 nm
- B. From 0,5 to 500 nm
- C. From 25 to 600 nm
- D. From 15 to 400 nm
- E. From 5 to 200 nm

529. Capsids of virions have a clearly ordered structure. What are the types of symmetries underlying?

- A. Rhabdoid, combined
- B. Spiral, spherical
- C. Spiral, cubic, combined
- D. Cubic, Spermatozoon-shaped
- E. Spermatozoon-shaped, spherical

530. Due to the interaction of virus with the host cell can develop productive cell type of virus infection. Thus there:

- A. Integration of viral and cellular genome
- B. Fine virus
- C. Inhibition of virus reproduction
- D.
- E. Enhancement of virus reproduction

531. The bacteria is called lysogenic:

- A. In condition of phages's reproduction
- B. Lysed in the allocation of phages
- C. Infected with virulent phages
- D. Have on their surface adsorbed phages

- E. Have in its genome prophage
532. To isolate the virus used chick embryos aged:
- A. From 3 to 10 days
 - B. From 6 to 15 days
 - C. From 10 to 15 days
 - D. From 5 to 20 days
 - E. From 10 to 20 days
533. Most effective in combating viral infections, which have aerogenic transfer mechanism are:
- A. Measures aimed at the source of infection
 - B. Measures, interrupt transfer mechanism
 - C. Measures to create a specific immunity
534. Material from patient A., 4 years, with suspected enterovirus infection were infected with cell culture to virus accumulation. What type of tissue culture is represented by tumor cells and is able to divide indefinitely?
- A. Transplantable cell line
 - B. Organ culture
 - C. Culture of primary cells
 - D. Diploid cell lines
 - E. None of these

Laboratory diagnostics of Ortomyxoviral, Paramixoviral and Rhabdoviral infections. Lesions of the oral cavity under conditions of influenza and measles.

535. In the laboratory smears were taken of the mucous membrane of the nasal cavity in a patient with suspicion of influenza. What are the methods of investigation must be carried out to identify the virus?
- A. Immunoassay analyze
 - B. The reaction of agglutination
 - C. The reaction of precipitation
 - D. Reaction of indirect

- hemagglutination
- E. The reaction of complement fixation
536. The high variability of influenza A viruses, implemented through the mechanism of the "shift" is associated with features of the virus
- A. The virus has a fragmentirium genome
 - B. The virus has a negative RNA
 - C. The virus will infect both human and animal
 - D. The structure of the virion consists of lipids and carbohydrates
 - E. The virus has spiral RNA
537. Infection of chick embryos is the main method of isolation of influenza virus. When injected into the chicken embryo test material (nasopharyngeal wash) is added prior to it:
- A. Streptomycin and penicillin
 - B. Periyodat of potassium
 - C. A solution of Needle
 - D. Ethanol
 - E. Ether
538. On the basis of clinical symptoms and epidemiological data, the doctor put the patient the diagnose of the flu. Which family contains viruses?
- A Picornavirus
 - B. Herpes
 - C. Gepadnovirus
 - D. Ortomixovirus
 - E. Togavirus
539. A pediatrician, conducting a conversation with parents about measles, noted that a certain category of children has a natural passive immunity to the disease. Which ones children had a physician in mind?
- A. Over 14 years
 - B. Newborns
 - C. Those who had measles in the first year of life

- D. Those who received routine immunizations
- E. Those whose parents had not measles
540. Pathological material (nasopharyngeal mucus) was taken from a patient with suspicion of flu, which have infected the chicken embryos in chorion-alantoisnus cavity. Through which the reaction is the most expedient to prove that HAP actually accumulated the influenza virus and to determine the type of virus?
- A. Precipitin
- B. Double immunodiffusion
- C. Immunofluorescence
- D. Hemagglutination
- E. Neutralization
541. Typical influenza virus belonging is determined:
- A. The neutralization reaction
- B. The reaction of complement fixation
- C. The reaction of agglutination
- D. The reactions of precipitation
- E. The reaction of hemagglutination - inhibition
542. The serological reactions are used to establish the subtype of the hemagglutinin of influenza virus:
- A. The reaction of agglutination
- B. The reaction of precipitation
- C. The reaction of complement fixation
- D. The reaction of neutralization
- E. The reaction of hemagglutination - inhibition
543. For the specific prophylaxis of influenza in people aged 65 and older with chronic, cardiovascular disease is used:
- A. Live vaccine
- B. Killed vaccine
- C. Anatoxin
- D. Chemical vaccine
- E. Antiidiotypic vaccine
544. For the specific prophylaxis of influenza among students and those working in enterprises in the service is used:
- A. Live vaccine
- B. Killed vaccine
- C. Anatoxin
- D. Chemical vaccine
- E. Antiidiotypic vaccine
545. The composition of the outer shell processes of spikes flu include:
- A. gp120, gp41
- B. p24, p17
- C. Hemagglutinin, neuraminidase
- D. Hemolysin, coagulase
- E. Hemagglutinin, hialuronidase
546. The composition of the outer shell processes spikes parainfluenza virus include:
- A. gp120, gp41
- B. p24, p17
- C. hemagglutinin, neuraminidase
- D. hemolysin, coagulase
- E. hemagglutinin, hialuronidase
547. For the specific prophylaxis of parainfluenza is used:
- A. Live vaccine
- B. Killed vaccine
- C. Anatoxin
- D. Chemical vaccine
- E. Is not developed
548. Mumps virus belongs to the family:
- A. Picornavirus
- B. Rhabdovirus
- C. Ortomyxovirus
- D. Paramyxovirus
- E. Rhinoviruses
549. Transmission of mumps:
- A. Alimentary
- B. Sexual
- C. Respiratory
- D. Parenteral

- E. Tranplacental
550. Entrance gate of infections with mumps:
- The mucous membrane of the nasopharynx
 - The salivary glands
 - The mucosa of the intestine
 - Damaged skin
 - The mucosa of genital organs
551. For mumps the complications are characterized by:
- A cardiovascular system, pancreas, testes,
 - Liver, thyroid, testicular
 - The nervous system, mammary glands, testes,
 - The thyroid and pancreas, liver
 - Cardiovascular system, mammary glands, testes,
552. For the specific prevention of mumps shall apply:
- Live vaccine
 - Killed vaccine
 - Anatoxin
 - Chemical vaccine
 - Is not developed
553. The measles virus belongs to the family:
- Ortomyxovirus
 - Paramyxovirus
 - Picornaviruses
 - Poxviruses
 - Rhabdovirus
554. The main route of transmission of measles is:
- Respiratory
 - Alimentary
 - Parenteral
 - Contact-home
 - Tranplacental
555. Infectious period for measles is:
- The last 5 days of incubation, prodrome, the period of eruption
 - The last day of incubation, prodrome
 - Prodromal period, the period of eruption
 - The last day of incubation, prodrome, the period of eruption
 - The last 5 days of incubation, prodrome
556. An early pathogenesis symptom for measles is to identify:
- Cells of Babesh- Negri
 - Spots of Bielski-Filatov-Koplik
 - Granule of Babesh-Ernst
 - Cells of Guarnieri
 - Listing of Prowazeki-Galbertshedter
557. For the specific prophylaxis of measles apply:
- Live vaccine
 - Killed vaccine
 - Anatoxin
 - Chemical vaccine
 - Is not developed
558. For a specific treatment for measles apply:
- Live vaccine
 - Killed vaccine
 - Anatoxin
 - Immunoglobulin
 - Is not developed
559. Cytopathic effect of mumps virus to sensitive tissue culture is characterized by:
- The appearance of simplast with multiple cores
 - destruction and formation of granulation in the infected cells
 - Improving the refraction of affected cells, which are then rounded and separated from the glass
 - The formation of giant cells, which have intranuclear inclusions
 - Stimulation of cell proliferation
560. In a study of the sick 5 years old child by the dentist on the basis of clinical data has been diagnosed with

mumps. Which of the following methods can be transmitted the disease?

- A. Airborne
- B. Transmissible
- C. Animals through the bite
- D. Through fecal-oral
- E. Parenteral

561. To prevent seasonal flu rise in hospitals of the city Sanitary Epidemic Station obliged to immunize health care workers. What of the following drugs should be immunized?

- A. Subunit vaccine
- B. Interferon
- C. Gamma globulin
- D. Remantadin
- E. Amantadine

562. In the infectious diseases hospital the patient admitted with signs of pneumonia, which developed on the 6th day of the flu. Which method is most authentically confirmed influenza etiology of pneumonia?

- A. Detection of influenza virus antigens in sputum by ELISA
- B. The study paired sera
- C. Infection of chick embryos
- D. Immunofluorescent study smears from the nasal passages
- E. Detection of antibodies against influenza virus hemagglutinin

563. During an outbreak of acute respiratory infection in order to establish the diagnosis of influenza rapid diagnosis is carried out, based on the identification of specific viral antigen in the test material (nasal wash). What serological tests used for this?

- A. Immunofluorescent assay
- B. The reaction of complement fixation

- C. The reaction of agglutination
- D. The reaction of precipitation
- E. The reaction of opsonization

564. Serological diagnostics of influenza involves the identification of growth titer of antibodies to the patient serum. How many times should the antibody titer increase in paired sera, that results are considered credible?

- A. In 3 times
- B. In 2 times
- C. In one time
- D. In 4 or more times
- E. In a half-titer

565. The influenza virus contains an internal antigens - the nucleoprotein (NP), polymerase (P1, P2, P3), matrix protein (M) and external antigens - hemagglutinin (H) and neuraminidase (N). Some of them a key role in establishing immunity to influenza infection?

- A. Hemagglutinin and neuraminidase
- B. Nucleoprotein antigens
- C. Matrix protein
- D. polymerase proteins
- E. Neuraminidase

566. Post-mortem department of infectious diseases hospital the corpse of a dead person was suddenly sent with a clinical diagnosis "flu." What research is needed to confirm specified for a reliable diagnosis?

- A. Electron microscopic detection of viruses
- B. Isolation and identification of influenza virus
- C. Detection of intracellular inclusions at light microscopy
- D. Isolation of high titers of antibodies in the reaction of hemagglutination -inhibition
- E. Isolation of antibodies in the complement-fixation

567. The boy of 6 years old of moderate fever, enlarged parotid glands. A virus of saliva was isolated that replicates in chicken embryos or cell cultures, has hemagglutination properties and causes the formation of simplast in cell culture. What other organs are most likely to be affected as a consequence of infection with this virus?

- A. Lungs
- B. Liver
- C. Gonads
- D. pharyngeal tonsils
- E. Brain

568. The epidemic of flu is in the city. Which of the following drug can be recommended to people for non-specific prevention of the disease?

- A. Leukocyte interferon
- B. Flu vaccine
- C. Penicillin
- D. Influenza immunoglobulin
- E. Flu serum

569. To prevent seasonal flu which rises in the educational institutions of the city-station must hold an active immunization of children and adolescents. What of the following drugs should be immunized?

- A. Killed vaccine
- B. Normal human immunoglobulin
- C. Rimantadine
- D. Oxolin
- E. Interferon

570. In the kindergarten routine measles vaccination were conducted. What method can verify the formation of postvaccinal immunity?

- A. Serological
- B. Virological
- C. Bacteriological
- D. Bacterioscopic
- E. Allergic

571. When virusoscopy cell

monolayer, infected with infectious material, physician assistant diagnosed the respiratory- syncytial virus infection. What changes will this virus cause in cell culture?

- A. Total destruction of the cell monolayer
- B. Round cellular degeneration
- C. The formation of polynuclear cells
- D. The presence of cell Babesh- Negri
- E. Detachment of the monolayer

572. The department has increased dramatically the incidence of newborn children SARS, caused by the different groups of viruses. In order to prevent the spread of infection are recommended appointment of human leukocyte interferon. Which way is this product introduced?

- A. Subcutaneously
- B. In the nasal passages
- C. Inhalation
- D. Oral
- E. Intramuscularly

573. What strain of influenza virus with a pandemic antigenic structure is caused now?

- A H1N1
- B. H3N4
- C. H1N2
- D.H2N3
- E. H2N2

574. Boy, 1.5 years old, who did not receive routine vaccinations in contact with the measles. For the purpose of emergency specific prevention of child was entered donor gamma globulin. What type of immunity was established at the same time?

- A. The natural
- B. Passive
- S. antitoxic
- D. Post-vaccination
- E. Local

575. What type of influenza virus has the greatest antigenic variation?

- A. A
- B. B
- C. C
- D. D
- E. E

576. A child 7 years has acute illness. During the inspection it was revealed: that the hyperemia and edema of the pharyngeal mucosa, which is covered with lots of mucus. On the mucous membrane of cheeks whitish spots. Then a blotchy rash appeared on the child's face, neck and body. What is the disease most likely evolved in this case?

- A. Meningococemia
- B. Measles
- C. Atopic dermatitis
- D. Scarlet fever
- E. Diphtheria

577. From the patient's clinical material (flush with the nasopharynx), with a preliminary diagnosis of influenza epidemiology, conduct virus isolation in chicken embryo. Which of these reactions can be used to detect the virus in the chick embryo?

- A. The reaction of hemagglutination inhibition (RGGA)
- B. The reaction of agglutination (PA)
- C. The reaction of indirect hemagglutination (Phragmites)
- D. The reaction of hemagglutination (RHA)
- E. The reaction of immune hemolysis

578. In the diagnosis of salivary gland inflammation in the patient was isolated mumps virus. Which family is this a virus?

- A. Paramyxovirus
- B. Ortomyxovirus
- C. Picornavirus
- D. Herpes simplex virus

E. Adenoviruses

579. For effective vaccination is necessary to provide probable virus that causes epidemic. As a rule, the agent is the variant of the virus against which most people have no antibodies. What kind of reaction is advisable to apply for the detection of antibodies in the sera of people?

- A. Complement fixation
- B. The indirect hemagglutination
- C. Passive hemagglutination
- D. Neutralization of the cytopathogenic
- E. Hemagglutination inhibition

580. From individuals with respiratory infection clinic, residents of south-east Asia, has been isolated influenza virus from sharp changes in the surface glycoproteins - hemagglutinin and neuraminidase. The laboratory staff regarded the virus as a virus with pandemic potency. In the result of which process could form an antigenic variant of influenza virus?

- A. Antigenic shift
- B. Antigenic drift
- C. Conjugation
- D. Transduction
- E. Transformation

581. In a 32-year-old man "flu-like syndrome" developed with fever, headache, sore throat and muscle aches. Which of the following is the best studied material for virus isolation - the agent of this infection?

- A. Feces
- B. Nasopharyngeal wash
- C. Urine
- D. Blood
- E. Saliva

582. The kindergarten child got sick of measles. What medication can prevent measles outbreak in a group?

- A Human immunoglobulin, normal
- B. Measles vaccine
- C. Sulfonamides
- D. Interferon
- E. Antibiotics

583. The patient has the flu where a defeat of the epithelial cells of the nasal mucosa is, which helps activate the body autoflora and the emergence of secondary bacterial infection. What kind of bacteria can cause complications?

- A. Coli bacillus
- B. Pseudomonas aeruginosa and Proteus
- C. Bacillus and Clostridium
- D. Staphylococcus and Streptococcus
- E. Fuzobacteries and Treponema

584. The incubation period is a minimum in the penetration of the agent of rabies through the damaged skin:

- A. Head
- B. Neck
- C. Upper limb
- D. Body
- E. The lower extremities

585. The incubation period is the maximum penetration of the agent of rabies through the damaged skin:

- A. Head
- B. Neck
- C. Upper limb
- D. Body
- E. The lower extremities

586. For the laboratory diagnostics of rabies the methods are used:

- A Histological, allergic, biological
- B. Immunofluorescent, histological, biological
- C. Serological, biological, and allergic
- D. Biological, allergic, histological
- E. Allergic, serological, immunofluorescent

587. Specific for rabies is to identify

the cells:

- A. Paschen
- B. Babesh- Ernst
- C. Prowazek
- D. Gvarnier
- E. Babesh-. Negri

588. To detect the cells of Babesh-Negri by histological method the staining is used:

- A. By Neisseria
- B. By Gins
- C. By Morozov
- D. By Turevich
- E. By Peshkov

589. For specific rabies is applied:

- A. Killed vaccine
- B. Live vaccine
- C. Anatoxin
- D. Chemical vaccine
- E. Antiidiotypic vaccine

590. The patient turned to the clinic because of dog's bites. The dog managed to catch it, and it turned out that the animal is sick with rabies. Which vaccine should be used for specific prophylaxis of rabies in humans?

- A. Chemical
- B. Anatoxin
- C. Living
- D. Recombinant
- E. The synthetic

591. A man turned to the surgery who was bitten by unknown dog.

Extensive lacerations are located on the face. What is the treatment and prophylaxis care is required to provide for the prevention of rabies?

- A. Post immunized with rabies vaccine
- B. Assign a combined antibiotic
- C. Urgently introduce DTP
- D. To hospitalize and keep under the supervision of a physician
- E. Extra enter the normal gamma-

globulin

592. For which of these diseases are characterized by the cell of Babesh-Negri in host cells?

- A. Aseptic meningitis
- B. Rabies
- C. Congenital Rubella
- D. mumps
- E. Infectious mononucleosis

593. The rabies virus belongs to the family:

- A. Reovirus
- B. Retrovirus
- C. Togavirus
- D. Picornavirus
- E. Rhabdovirus

594. In Ukraine, the main source of human infection with rabies is:

- A Sick Man
- B. Dogs
- S. Wolf
- D. Fox
- E. Cattle

595. Entrance gates in rabies are:

- A. Upper respiratory tract
- B. The intestinal tract
- C. Damaged skin
- D. Reproductive organs
- E. The salivary glands

596. The body of a sick man rabies virus stands out:

- A. From the saliva
- B. From the feces
- C. From urine
- D. From the nasopharyngeal mucus
- E. Not released

597. In the patient's body is fixed rabies virus in the cells:

- A. Cardiovascular System
- B. Nervous System
- C. Liver
- D. Blood
- E. Skin

598. In setting up the FTA with the slices of dog's brain died because of

the rabies observed luminosity. What is defined for a given reaction?

- A. The cells of Paschen
- B. Antibodies
- C. The cells of Babesh- Negri
- D. Corn Fly
- E. Corn volutin

599. The patient with a torn wound after being bitten by rabid animal admitted to the hospital. Which vaccine should be introduced for prophylaxis of rabies?

- A. Rabies vaccine
- B. DTP
- C. DT
- D. BCG
- E. TABte

600. Hunter turned for medical help because of being bitten by the wounded fox. What kind of help should be given to him in order to prevent rabies specific?

- A. Introduction of rabies vaccine
- B. Surgical treatment of wounds
- C. The introduction of antibiotics
- D. Washing the wound with soap and water
- E. Treatment of wounds with an alcoholic solution of iodine

601. A child of 2 years of catarrhal conjunctivitis, pharyngitis, larengotraheobronhitis appeared., The white spots have appeared on the mucous membrane of the cheeks, and later spotted rash on the face, trunk, extremities. What kind of illness should think about?

- A. Influenza
- B. Fever
- C. Measles
- D. Scarlet fever
- E. Meningococcal disease

602. The patient has the flu and there is a defeat of the epithelial cells of the nasal mucosa, which helps activate

the body autoflora and the emergence of foci of secondary bacterial infection. What kind of bacteria can cause complications?

- A. Bacillus and Clostridium
- B. Pseudomonas aeruginosa and Proteus
- C. Staphylococcus and Streptococcus
- D. Coli bacillus
- E. Fuzobacteries and Treponema

603. From individuals with respiratory infection clinic, residents of south-east Asia, has been isolated influenza virus from sharp changes in the surface glycoproteins - hemagglutinin and neuraminidase.

The laboratory staff regarded the virus as a virus with pandemic potency. As a result of what process could form an antigenic variant of influenza virus?

- A. Transformation
- B. Antigenic drift
- C. conjugation
- D. Transduction
- E. Antigenic shift

604. In a 32-year-old man 'flu-like syndrome "developed with fever, headache, sore throat and muscle aches. Which of the following is the best material under study to isolate the virus agent of this infection?

- A. Nasopharyngeal wash
- B. Feces
- C. Urine
- D. Blood
- E. Saliva

605. The kindergarten child got sick of measles. What medication can prevent measles outbreak in a group?

- A measles vaccine
- B. Human immunoglobulin normal
- C. sulfonamides
- D. Interferon
- E. Antibiotics

Laboratory diagnostics of HIV infection. The defeat of the oral cavity at AIDS

606. In a study of young man in the middle of the fight against AIDS has been obtained positive results with ELISA antigens of HIV. Complaints about the state of health are not available. What may indicate a positive result of ELISA?

- A. About HIV
- B. About AIDS
- C. About the HBV infection
- D. About the disease of AIDS
- E. About the persistence of HBV

607. The diagnostics of HIV infection examined serum for detection of specific antibodies by ELISA. What enzyme labeled antibodies are used in this case?

- A. Against the gp120 protein
- B. Against HIV antigens
- C. Against the human immunoglobulin
- D. Against protein gp 17
- E. Against protein gp 41

608. Human immunodeficiency virus differs from other viruses by:

- A. The complexity of the structure
- B. The presence of reverse transcriptase
- C. The ability to integrate into the genome of the cells
- D. The presence of two types of nucleic acids - DNA and RNA
- E. The ability to grow in chick embryo

609. The main method of laboratory diagnostics of HIV infection is

- A. Allergic
- B. Virusological
- C. Biology
- D. Serological
- E. Electron microscopy

610. Target cells for HIV are:

- A. T-killers
 - B. T-suppressor
 - C. T-helper
 - D. B-lymphocytes
 - E. NK-cells
611. After infection with HIV the antibodies appear in serum in:
- A. 2-3 weeks
 - B. 3-6 months
 - C. 10-12 months
 - D. 3-6 years
 - E. 8-10 years
612. The patient was informed that serological testing for AIDS consists of two stages. What reaction is used to study serum antibody against the virus in the first stage?
- A. RIA
 - B. Immunoblotting
 - C. ELISA
 - D. FTA
 - E. RNTA
613. What kind of protein of HIV is bounded the mechanism of reverse transcription?
- A. Endonuclease
 - B. Protease
 - S. Neyrominidaza
 - D. RNA polymerase
 - E. Revertaze
614. Specify the transmission of HIV.
- A. Respiratory
 - B. Contact
 - C. Alimentary
 - D. The parenteral
 - E. Transmissible
615. At the initial examination of blood donors at blood transfusion stations ELISA to detect antibodies to human immunodeficiency virus with serum from one of them produced a positive result. Which method is recommended to confirm the diagnosis of HIV infection?
- A. Electron Microscopy
 - B. Immunoblot (immunoblotting)
 - C. Enzyme Immunoassay
 - D. Immunofluorescence
 - E. Clinical and immunological study
616. At autopsy of the deceased in the skin of distal lower extremities revealed crimson-red patches, plaques, and nodes (Kaposi's sarcoma). Identified as an acute pneumonia caused by pnevmotsistami. What disease is characterized by the changes?
- A. Influenza
 - B. Diphtheria
 - C. Measles
 - D. Anthrax
 - E. AIDS
617. HIV belongs to the family:
- A Picornavirus
 - B. Reovirus
 - C. Rhabdovirus
 - D. Retroviruses
 - E. paramyxovirus
618. HIV belongs to the subfamily:
- A. Oncoviruses
 - B. Lentiviruses
 - C. Spumavirus
619. LTR of proviral HIV DNA encodes:
- A. Internal structural proteins
 - B. Regulatory proteins
 - C. Type-specific protein of the outer shell
 - D. Do not encode any proteins
 - E. Virus specific enzymes
620. The gene env of HIV proviral DNA encodes:
- A. Internal structural proteins
 - B. Regulatory proteins
 - C. Type-specific protein
 - D. Do not encode any proteins
 - E. Virus specific enzymes
621. The gene pol of HIV proviral DNA encodes:
- A. Internal structural proteins

- B. Regulatory proteins
 C. Type-specific protein of the outer shell
 D. Do not encode any proteins
 E. Virus specific enzymes
622. The greatest variability of proviral DNA are the genes of HIV:
 A. env
 B. pol
 C. gag
 D. sor
 E. tat
623. Very high level of variability of HIV is associated with proteins:
 A. p24
 B. p18
 C. p13
 D. gp120
 E. gp160
624. Major role in the interaction of HIV with target cells is:
 A. p24
 B. p18
 C. gp41
 D. gp120
 E. gp160
625. In healthy people the ratio of T4/T8 is as follows:
 A. 0, 2-0, 5
 B. 0, 7-1, 2
 C. 1, 9-2, 4
 D. 2, 5-3, 2
 E. 3, 5-4, 2
626. In patients with AIDS the ratio of T4/T8 is:
 A. 0, 2-0, 9
 B. 1, 9-2, 4
 C. 2, 5-3, 2
 D. 3, 5-4, 2
 E. 4, 5-5, 0
627. In AIDS patients are observed:
 A. The involution of parathyroid gland, inhibition of B-lymphocytes, reducing the level of interleukin-2 and interferon
 B. The involution of parathyroid gland, activation of B cells, reducing levels of interleukin-2 and interferon
 C. The involution of parathyroid gland, activation of B-lymphocytes, increased levels of interleukin-2 and interferon
 D. Hyperfunction of parathyroid inhibition of B-lymphocytes, reducing the level of interleukin-2 and interferon
 E. The involution of parathyroid gland, activation of B-lymphocytes, increased levels of interleukin-2 and interferon
628. In AIDS patients are observed:
 A. Reduced levels of IgG and IgA, the number of immune complexes, interleukin-2
 B. Reduction of IgG and IgA, increased number of immune complexes, interleukin-2
 C. Increased levels of IgG and IgA, the number of immune complexes, interleukin-2
 D. Increased levels of IgG and IgA, reduction of immune complexes, Interleukin-2
 E. Increased levels of IgG and IgA, the number of immune complexes, reduction of interleukin-2
629. The structure of HIV processes include:
 A. gp120, gp41
 B. Hemagglutinin, neuraminidase
 C. Hyaluronidase, coagulase
 D. Hemolysin, coagulase
 E. p24, p17
630. For specific prophylaxis of AIDS is used:
 A. Live vaccine
 B. Killed vaccine
 C. Toxoids
 D. Chemical vaccine
 E. Not developed

631. High risk for HIV infection include:

- A. Patients with chronic medical conditions
- B. Recipients of blood
- C. Patients with tuberculosis
- D. Parturient
- E. Blood Donors

632. If any clinical signs of disease and showed an HIV test:

- A. Acute Diarrhea
- B. Acute pneumonia
- C. The increase in groin
- D. Increase in cervical lymph nodes
- E. The increase in lymph nodes of several locations

633. For the first time AIDS was registered as an infectious disease in man:

- A. 1977
- B. 1979
- C. 1981
- D. 1983
- E. 1985

634. The results of the allocation of AIDS pathogen group of French scientists were first published in:

- A. 1977
- B. 1979
- C. 1981
- D. 1983
- E. 1985

635. Priority in allocation of AIDS pathogen belongs to a group of researchers led by:

- A. P. Frosch and T. Francis
- B. P. Parkmen and T. Uellerg
- C. G. Doldorf and G. Sikls
- D. L. Montan'ye and R. Gallo
- E. D. Enders and E. Popper

636. In a patient with fever of unknown etiology, immunodeficiency, damage to the nervous and digestive systems previously diagnosed with

AIDS. What are the diagnostic methods must be used to confirm the diagnosis?

- A. Immunofluorescence assay, immunoblotting, radioimmunoassay
- B. Complement fixation test
- C. Agglutination test
- D. Reaction gemadsorbtion
- E. The reaction of hemagglutination

637. When testing blood donors for blood transfusion station in the serum of one of them had antibodies to human immunodeficiency virus. Which method is recommended to confirm the diagnosis of HIV infection?

- A. Immunofluorescence
- B. Electron microscopy
- C. ELISA
- D. Immunoblot (immunoblotting)
- E. Immunoradiometric assay

638. HIV-infected patient is examined periodically for signs of revitalization process. What are the most significant sign that points to the transition of HIV infection to AIDS.

- A. Kaposi's sarcoma. Number of T-helper cells below 200 cells / mm
- B. Reducing the number of neutrophils
- C. Reducing the number of T-helper
- D. Number of T-helper cells below a critical level
- E. Detection of antibodies to gp 41

639. In a specialized clinic patients assigned the combination of drugs that inhibit the reproduction of HIV. Indicate which group includes drugs that are necessarily comprehensive antiviral treatment.

- A. Crixivan
- B. Broad-spectrum antibiotics
- C. Interleukin
- D. nucleoside analogues
- E. Biseptol

640. A patient was treated for a long time for pneumonia of unknown etiology, resistant to standard therapy. Anamnesis revealed that he was a long time on a business trip in the U.S.. While traveling he was injured, was treated in hospital after his recovery he returned home. Evaluating the medical history, clinical picture, the doctor suspected AIDS in patients. Results of what laboratory diagnostic methods let confirm that pre-diagnosis in this patient?

- A. Widal reaction
- B. Immunosorbent assay
- C. Complement fixation test
- D. Electron Microscopy
- E. HAI-hemagglutination inhibition test

641. The patient had been diagnosed AIDS for 20 years -. What is the cell population most sensitive to human immunodeficiency virus?

- A. Epithelial cells
- B. Hepatocytes
- C. Endothelial cells
- D. T helper
- E. B-lymphocytes

642. It is known that human immunodeficiency virus belongs to the family retroviruses. Specify the main features which characterized the family.

- A. The presence of the enzyme reverse transcriptase
- B. Contain less RNA
- C. Simple viruses that infect only human
- D. The nucleic acid does not integrate into the host genome
- E. The reaction of enzyme immunoassay antigen detection

643. In carrying out Western blot test in serum was found protein gp120.

What illness occur this protein?

- A. Syphilis
- B. Viral hepatitis B
- C. Tuberculosis
- D. HIV infection
- E. Polio

644. The patients turned to the dentist with manifestations of oral candidosis, which always recurs and no cure. When questioning revealed that the patient has a long time there is fever, weight loss. What research should be done to the patient?

- A. Immunological and serological tests for HIV infection
- B. Bacteriological studies on dysbiosis.
- C. Select a pure culture of the pathogen and to investigate the sensitivity to antibiotics.
- D. Check the status of humoral immunity.
- E. Investigate the level of specific antibodies to the fungus Candida

645. Acquired immunodeficiency syndrome (AIDS) is the human immunodeficiency virus. Which cells are targets for this virus?:

- A. Eosinophils
- B. Natural killer cells
- C. T-helper lymphocytes
- D. Basophiles
- E. Plasma

646. Human immunodeficiency virus, which has on its surface antigens gp 41 and gp 120 interacts with the target cells of the body. Choose among these antigens of human lymphocytes, which complementarily binds gp 120 virus.

- A. CD 3
- B. CD 4
- C. CD 8
- D. CD 19
- E. CD 28

647. In the study of blood serum in patients with signs of immunodeficiency were identified antibodies of proteins gp 120 and gp 41. What infection in a patient confirms this result?
- HIV infection
 - NLTV-1 infection
 - TORCH-infection
 - HB - infection
 - ECHO-infection
648. After laboratory examination of patients with recurrent common viral, bacterial and fungal opportunistic infections diagnosed "HIV infection". The results of investigations made it possible to put such a diagnosis?
- Immunosorbent assay.
 - Complement fixation test.
 - Gel precipitation test.
 - The reaction of hemagglutination inhibition.
 - The reaction of passive hemagglutination.
649. In a patient with clinical signs of immunodeficiency were conducted immunological studies. Revealed a significant decrease in the number of cells that form rosettes with sheep erythrocytes. What conclusion should be based on data analysis?
- Reduction of complement
 - Reduction of B-lymphocyte
 - Reduction of natural killer (NK-cells)
 - Reduction of T-lymphocytes
 - Lack of effector cells of humoral immunity
650. The patient has 25 years of multiple skin pustules planted *Staphylococcus aureus* in association with *Staphylococcus epidermidis*, the study of sputum revealed *Pneumocystis Carini* in the faeces - *Cryptosporidium*, vulgar *Proteus* and fungi of the genus *Candida*. When a disease is found multiple opportunistic microorganisms?
- AIDS
 - Diabetes
 - Sepsis
 - dysbacteriosis
 - Medical agranulocytosis
651. Retroviruses are unique enzyme, which distinguishes them from other viruses. Which of the following enzymes of retroviruses replicate?
- RNA-dependent DNA polymerase
 - DNA-dependent RNA polymerase
 - DNA polymerase
 - RNA polymerase
 - Restrictase
652. To the city center of research an anonymous citizen N. has addressed to conduct a survey on HIV infection, after which the patient's blood was sent to the laboratory for serological diagnosis. Which of these reactions must take place in this case?
- Enzyme Immunoassay
 - The reaction of indirect hemagglutination
 - The reaction of complement fixation
 - Immunofluorescence reaction
 - The reaction of neutralization
653. Patient at the age of 22 was hospitalized at the clinic complaining of a sharp weight loss, general weakness, swollen lymph nodes. Over the past few months suffering from diarrhea. Laboratory researches established radiation in the faeces in large numbers is found *Cryptosporidium*. In a detailed clinical study of AIDS, diagnosis was proved. Which of the immunological characteristics are important for this disease?
- A Change in the correlation between

T-and B-lymphocytes

B. The sharp decline in activity of the complement system

C. Lymphopenia

D. Polyclonal activation B - lymphocytes

E. The absolute reduction in the number of T - helper cells

654. In a patient with clinic pneumonia physician suspected HIV - infection. What laboratory tests can confirm a diagnosis of "HIV - infection" in this patient?

A. ELISA screening of serum

B. Bacteriological examination of sputum

C. Mycological examination of sputum

D. Virological examination of sputum

E. Electron examination of sputum

655. A young man at the age of 25 was first applied to the study of trust with the request to delete his HIV infection. What reaction can be used to diagnose HIV infection in this patient?

A. Enzyme immunoassay (ELISA)

B. Reaction immunoblotting

C. Radioimmunny analysis (RIA)

D. Immunoelectronic microscopy (IEM)

E. Immunofluorescence reaction (IFA)

656. After the examination of patients with recurrent aphthous stomatitis and candidosis associated physician decided to exclude HIV infection.

What research will help clarify the situation and a preliminary diagnosis?

A. Enzyme Immunoassay

B. Gel precipitation test

C. The reaction of hemagglutination inhibition

D. The reaction of hemagglutination

657. In the dental clinic, the

Laboratory was provided for diagnosis of HIV infection. What diagnostic tools must a laboratory be equipped with?

A test system for detection of specific antibodies by ELISA

B. Cell cultures for virus isolation

C. Sets of special culture media

D. Standard diagnostic sera

E. Antigen and hemolytic system to complement-fixation

658. AIDS patient asked the dentist about the destruction of the oral mucosa. The defeat was manifested

with white plaques, which are merged into a continuous "layering cheese", usually near the corners of the mouth

and on the back of the tongue. What is the diagnosis of such lesions of the oral mucosa of AIDS posed a doctor?

A. Candidosis

B. Herpetic stomatitis

C. Necrotizing stomatitis Vincent

D. Foot and mouth disease

E. Gonococcus stomatitis

659. In the dental patient, a man at the age of 49, has been observed for necrotizing gingivitis, the defeat of the "thrush" caused by Candida, dry mucous membranes, and bilateral tumors salivary glands.

Consequence of which immune disorders most likely to be that defeat?

A. AIDS

B. Primary immunodeficiency combinable

C. Allergic disease

D. Autoimmune disease

E. Selective gammaglobulinemia

660. In connection with cases of diagnosis of HIV infection in the dental clinic a meeting was held, at which the recommendations were made by doctors, epidemiologists,

AIDS Prevention Center. What

preventive measures could dentists recommend preventing the possibility of professional infection?

- A. The requirement of each patient's presenting medical certificate
- B. Wash your hands after each patient
- C. For each patient, using a new sterile set of instruments
- D. To work in personal protective equipment (gloves, goggles)
- E. To quartz the room

661. What method of testing blood donations should be applied to ensure the absence of her immunodeficiency virus?

- A. Electronic microscopic study of T4 lymphocytes
- B. Detection of the virus by infecting cultures of lymphocytes
- C. Detection of IgM antibodies
- D. To conduct nucleic acid agent
- E. Identification of pathogen antigens

662. In an observational branch of the hospital HIV-infected women gave birth to a child. The use of which of the following methods of diagnosis of HIV infection in the newborn is the most appropriate?

- A. RIA
- B. ELISA
- C. RVN
- D. DCs
- E. PCR

663. At what stage of HIV infection is a source of human infection?

- A. At all stages of HIV infection
- B. Acute HIV infection
- C. Chronic (latent) HIV infection
- D. Persistent generalized HIV
- E. AIDS - associated complex

Laboratory diagnosis of enterovirus, aftovirus and coronavirus infections. The defeat of the oral cavity in terms of

enterovirus infection, foot and mouth disease

664. In the infectious diseases hospital admitted the patient with clinical signs of encephalitis. In the history – the tick bite. In hemagglutination-inhibition tests revealed antibodies against the pathogen in tick-borne encephalitis dilution of 1:20. Enter the following steps after receiving the doctor's results:

- A. Use a more sensitive reaction
- B. Use this serum again
- C. Repeat the study with serum taken after 10 days
- D. Repeat the study with other diagnostic
- E. Confirm the diagnosis of tick encephalitis

665. Circulation in the nature of vertebrates and arthropods transmissible transmission characteristic of the man:

- A. Picornavirus
- B. Ortomyxovirus
- C. Poxvirus
- D. Filovirus
- E. Flavivirus

666. For serological diagnosis of polio examined the paired sera of the patient. What should be used as an antigen in the neutralization of the cytopathogenic?

- A. Antigens - haemagglutinin
- B. Complement-antigens
- C. The antigens inactivated with formalin
- D. Living the three types of viruses
- E. Antigens of the capsid proteins of the virus

667. A child at the age of 5 hospitalized at the 2nd day of illness with complaints of fever, weakness, gastrointestinal upset. In history:

contact with patients with poliomyelitis. Preliminary diagnosis: polio. What is the pathological material taken for laboratory testing and what method is used for microbiological diagnosis?

- A. Virological, stool.
- B. Liquor. Virological
- C. Blood. Biological
- D. Stools.
- E. Blood. Virological

668. For the specific prevention of polio are used:

- A. Ribosomal vaccine
- B. Live vaccine
- C. Toxoids
- D. Bacteriophage
- E. Chemical vaccine

669. Enteroviruses belong to the family:

- A. Picornavirus
- B. Poxvirus
- C. Paramyxovirus
- D. Ortomyxovirus
- E. Reovirus

670. Polio viruses belong to the genus:

- A. Rhinoviruses
- B. Cardiovirus
- C. Aftovirus
- D. Rubivirus
- E. Enterovirus

671. What is the serotype of the virus of polio often causes epidemics:

- A. I
- B. II
- C. III

672. Poliomyelitis virus has organ tropism:

- A. Cardiovascular System
- B. Nervous System
- C. Salivary glands
- D. Liver
- E. Blood

673. Properties of poliovirus vaccine

Sebina:

A. Provide general humoral immunity but do not provide local immunity of the intestine, is introduced parenterally

B. Do not provide a general humoral immunity, but provide local immunity of the intestine, enter per os

C. Do not provide a general humoral immunity, but provide local immunity of the intestine, is introduced parenterally

D. Provide a common humoral and local immunity of the intestine, is introduced parenterally

E. Provide a common humoral and local immunity of the intestine, enter per os

674. The properties of the Salk polio vaccine:

A. Provide general humoral immunity but do not provide local immunity of the intestine, is introduced parenterally

B. Do not provide a general humoral immunity, but provide local immunity of the intestine, enter per os

C. Do not provide a general humoral immunity, but provide local immunity of the intestine, is introduced parenterally

D. Provide a common humoral and local immunity of the intestine, is introduced parenterally

E. Provide a common humoral immunity but do not provide local immunity of the intestine, enter per os

675. Cocksackie viruses belong to the genus:

- A. Rhinoviruses
- B. Enteroviruses
- C. Cardiovirus
- D. Aftovirus
- E. Rubivirus

676. The main route of transmission

of diseases caused by Coxsackie virus:

- A. Alimentary
- B. The parenteral
- C. Sexual
- D. Contact-home
- E. Transplacental

677. Coxsackie virus has tropism for Organ:

- A. Cardiovascular System
- B. Nervous System
- C. The respiratory system
- D. Gastrointestinal tract
- E. Multiorgan tropism

678. For the specific prophylaxis of diseases caused by Coxsackie virus is used:

- A. Live vaccine
- B. Killed vaccine
- C. Toxoids
- D. Chemical vaccine
- E. Not developed

679. ECHO viruses belong to the genus:

- A. Rhinoviruses
- B. Enteroviruses
- C. Cardiovirus
- D. Aftovirus
- E. Rubivirus

680. For the specific prophylaxis of diseases caused by viruses ECHO apply to:

- A. Live vaccine
- B. Killed vaccine
- C. Toxoids
- D. Chemical vaccine
- E. Not developed

681. The main route of transmission of diseases that are caused by viruses of ECHO:

- A. The parenteral
- B. Alimentary
- C. Contact and household
- D. Sexual
- E. transplacental

682. ECHO viruses have tropism for Organ:

- A. Cardiovascular System
- B. Nervous System
- C. The respiratory system
- D. Gastrointestinal tract
- E. Multiorgan tropism

683. What is the mechanism of transmission of polio:

- A. Spray
- B. Fecal-oral
- C. Transmissible
- D. Contact
- E. Vertical (transplacental)

684. The patient has 5 year old boy on the fifth day after the onset of nasal mucosa and tonsils isolated agent of poliomyelitis. What kind of reaction should be used to determine the serotype of agent?

- A. The reaction was neutralized viral cytopathic effect
- B. Haemagglutination-inhibition tests
- C. Reaction inhibition gemadsorbition
- D. Indirect hemagglutination reaction
- E. Complement fixation test

685. The stools are sick with suspected intestinal virus infection treated with antibiotics for one hour at 40C. Then a suspension of infected primary and continuous cell culture. After 2-3 days in the infected cells showed cytopathic effect of cultures. How is the identification of enteroviruses held?

- A. Immunofluorescence reaction
- B. Through neutralization of the cytopathic type-specific enterovirus sera
- C. Through the haemagglutination-inhibition tests
- D. Use of agglutination
- E. With the precipitation reaction

686. From the patient with acute intestinal infection the virus was

divided which is referred to the genus Enterovirus. To establish the serotype of the virus diagnostic serum is used.

Indicate which of these antibodies should contain them?

- A. Against viral enzymes
- B. Against the protein supercapsid shell
- C. Against non-structural proteins of the virus
- D. Against the capsid proteins
- E. Against viral haemagglutinin

687. In the children's infectious disease section of the city hospital was hospitalized group of children with pre-set clinical diagnosis of "gastroenteritis rotavirus." What is the basic principle laboratory diagnostic applies in this case?

- A. Detection of viral antigen in the test material
- B. Identification of specific inclusions in the cells.
- C. Infection of chick embryos
- D. Isolation of the virus in cell culture with subsequent identification
- E. Infection of laboratory animals

688. Material from the patient A. 4y.o. with suspected enterovirus infection was infected with cell culture for the purpose of accumulation of the virus. What type of tissue culture cells was presented tumor and is able to divide indefinitely?

- A. Inculcate cell lines
- B. Organ Culture
- C. Culture of primary cells
- D. Lines of diploid cells
- E. None of these

689. The kindergarten children performed vaccination to prevent poliomielita. The vaccine was administered orally. Synthesis of antiviral immunoglobulins which

class will dominate the response to the introduction of this vaccine?

- A. Ig A
- B. Ig M
- C. Ig E
- D. Ig D.
- E. -----

690. Child, 5 months, carried out vaccination for prevention of polio vaccine by oral administration. What does the vaccine have in its composition?

- A. Formalin Killed viruses
- B. Live viruses
- C. heat-killed virus
- D. Elements of the viral capsid
- E. Virus reverse transcriptase

691. As a consequence of contamination of cell cultures of pathological material, which is taken from a sick child, isolated type I poliovirus? What is characteristic of this type of virus is responsible?

- A. .DNA containing a simple virus
- B. Retrovirus
- C. RNA - containing a simple virus
- D. DNA - containing complex virus
- E. RNA - containing complex virus

692. Go to the dentist asked the patient (the milkmaid), with precipitation in the oral mucosa in the form of the AFL. The doctor revealed skin rash hands around the nail plate. What pathogen caused the disease?

- A. The virus Coxsackie B
- B. Herpesvirus
- C. Vesicular stomatitis virus
- D. FMDV
- E. Cytomegalovirus

Laboratorial diagnostics of hepatitis A, B, C, D, E

693. In epidemiology of which from viral hepatitis is there the expressed seasonality?

- A. Hepatitis G
- B. Hepatitis B
- C. Hepatitis C
- D. Hepatitis D
- E. Hepatitis A

694. The main way of transmission of hepatitis A is:

- A. Inoculable
- B. Airborne
- C. Parenteral
- D. Contact
- E. Alimentary

695. The virus of hepatitis A belongs to the family:

- A. Picornaviruses
- B. Poxviruses
- C. Paramyxoviruses
- D. Orthomyxoviruses
- E. Reoviruses

696. The virus of hepatitis A belongs to the genus:

- A. Rhinoviruses
- B. Cardioviruses
- C. Aphthoviruses
- D. Enteroviruses
- E. Rubiviruses

697. Resistance of virus of hepatitis A to the factors of environment is:

- A. Unstable to the high temperature, to the low temperature, to the action of chlorine
- B. Unstable to the high temperature, to the action of chlorine, proof to the low temperature
- C. Proof to the high temperature, to the low temperature, unstable to the action of chlorine
- D. Proof to the high temperature, unstable to the low temperature, to the action of chlorine
- E. Proof to the high temperature, to the low temperature, to the action of chlorine

698. In what periods of disease a patient on viral hepatitis A is

most dangerous as a source of infection?

- a. At the end of latent period
- b. In full play of illness with the period of jaundice
- c. At the end of latent period and in full play of illness before jaundice appearance
- d. At the end of latent period and in full play of illness with the period of jaundice
- e. At the end of latent period, during all illness

699. The infection atriom for hepatitis A virus is:

- a. Mucous membrane of respiratory tracts
- b. Mucous membrane of digestive tract
- c. Mucous membrane of urinary system
- d. Skin
- e. Salivary glands

700. The viral hepatitis A usually damage:

- a. Children before 14 years old
- b. Adults outrank 30 years old
- c. Young people and adults (15-30 years old)
- d. Elderly people (much than 60 years old)
- e. Age dependence does not exist

701. Mechanism of HAV action to hepatocytes and clinical manifestation of viral hepatitis A are:

- a. Has direct cytopathic action to hepatocytes, serious forms of illness - acute or chronic with early formation of hepatic cirrhosis
- b. Has direct cytopathic action to hepatocytes. Often disease is over with full recovery
- c. The mechanism of action is unknown, 50 % of all forms of a

hepatitis pass in the chronic form, and usually it leads to cirrhosis and to a liver cancer

- d. The mechanism of action is unknown; the serious form of infection may be especially at pregnancy
- e. Has meditational immunological action to hepatocytes; usually chronically carriage is characterized as a persistent or chronically active hepatitis; may be without symptoms

702. A patient with hepatitis A is hospitalized to the infection diseases hospital. What types of antibodies will be synthesized first during the reproduction of this virus?

- a. IgA
- b. IgM
- c. IgE
- d. IgG
- e. IgD

703. There is a hepatitis eruption is fixed in a settlement. The water factor of transmission is the main. What kind of viruses can be a cause of eruption?

- a. Hepatitis D
- b. Hepatitis C
- c. Hepatitis B
- d. Hepatitis A
- e. No one of hepatitis A or hepatitis B

704. Three samples of blood sera were delivered to the laboratory: from the patient with chronic hepatitis B, second one recovered after hepatitis B and third one without hepatitis B symptoms. What kind of antigens will be revealed in all of samples?

- a. HBsAg
- b. HBeAg
- c. HBcAg

- d. HBcAg and HBeAg
- e. HBcAg and HBsAg

705. The main way of hepatitis D transmission is:

- a. Transplacental
- b. Alimentary
- c. Contact
- d. Sexual
- e. Parenteral

706. The main way of hepatitis E transmission is:

- a. Parenteral
- b. Alimentary
- c. Contact
- d. Sexual
- e. Transplacental

707. The main way of hepatitis C transmission is:

- a. Parenteral
- b. Alimentary
- c. Contact
- d. Sexual
- e. Transplacental

708. The causative agent of hepatitis D (delta-agent) is a defective virus. It can replicate only in cells already infected with one of the viruses. With which one?

- a. By virus of hepatitis B
- b. By virus of hepatitis A
- c. By Epstein-Barr virus
- d. By virus of hepatitis E
- e. By HIV

709. A patient with a very grave course of hepatitis B has been administered the examination for detecting the possible concomitant agent, which complicates the course of the basic disease. What agent is this?

- a. Virus of hepatitis A
- b. Δ -virus
- c. Virus of hepatitis G

- d. Virus of hepatitis E
e. HBs-antigen
710. The main way of hepatitis B transmission is:
- Parenteral
 - Alimentary
 - Contact
 - Sexual
 - Transplacental
711. Patient after a motor-car accident was delivered to the hospital. He needs blood transfusion. What reaction is it possible to use for a presence of the hepatitis B virus antigen in a donor blood revealing?
- Inhibition of hemagglutination test
 - Immunoenzymatic test
 - Inhibition of hemadsorption test
 - Indirect-hemagglutination test
 - Complement-connecting test
712. During an operative intervention a patient had blood transfusion. In his blood the presence of the following causative agent should be checked:
- Hepatitis A virus
 - Enteroviruses
 - Hepatitis B virus
 - Hepatitis C virus
 - Adenoviruses
713. The antigen structure of hepatitis B virus consists of antigens:
- HBaAg, HBbAg, HBcAg
 - HBaAg, HBcAg, HBsAg
 - HBcAg, HBeAg, HBsAg
 - HBaAg, HBcAg, HBdAg
 - HBaAg, HBeAg, HBsAg
714. HBsAg of viral hepatitis B is detected in:
- Patient's excrements
 - Saliva
 - Mucous of nasopharynx
 - Urine
 - All biological fluids
715. Resistance of hepatitis B virus to factors of external environment is:
- Nonresistant to high and low temperature, to disinfectant substances
 - Nonresistant to high temperature and disinfectant substances; resistant to low temperature
 - Resistant to high and low temperature, to disinfectant substances
 - Resistant to high temperature; nonresistant to low temperature and disinfectant substances
 - Resistant to high and low temperature; nonresistant to disinfectant substances
716. The infection atriom for hepatitis B virus is:
- Mucous membrane of respiratory tracts
 - Mucous membrane of digestive tract
 - Mucous membrane sexual ways
 - Blood
 - Skin
717. The patient with hepatitis B is dangerous in:
- The end of incubation period
 - The end of incubation period and height of disease before occurrence of jaundice
 - The end of incubation period and height of disease with an jaundice period
 - The height of disease with an jaundice period
 - The end of incubation period and during disease
718. The viral hepatitis B usually damages:
- Children before 14 years old

- b. Adults outrank 30 years old
 - c. Young people and adults (15-30 years old)
 - d. Elderly people (much than 60 years old)
 - e. Age dependence does not exist
719. Mechanism of HIB action to hepatocytes and clinical manifestation of viral hepatitis B are:
- a. Has direct cytopathic action to hepatocytes, serious forms of illness - acute or chronic with early formation of hepatic cirrhosis
 - b. Has direct cytopathic action to hepatocytes. Often disease is over with full recovery
 - c. The mechanism of action is unknown, 50 % of all forms of a hepatitis pass in the chronic form, and usually it leads to cirrhosis and to a liver cancer
 - d. The mechanism of action is unknown; the serious form of infection may be especially at pregnancy
 - e. Has mediatorial immunological action to hepatocytes; usually chronically carriage is characterized as a persistent or chronically active hepatitis; and without symptoms
720. The most sensible method for HBsAg revealing is:
- a. Precipitation in gel test
 - b. Counter electrophoresis
 - c. Passive hemagglutination test
 - d. Inhibition of hemagglutination test
 - e. Immunoenzyme test
721. The viral hepatitis E usually damages:
- a. Children before 14 years old
 - b. Adults outrank 30 years old
 - c. Young people and adults (15-30 years old)
 - d. Elderly people (much than 60 years old)
 - e. Age dependence does not exist
722. RNA-viruses causes the:
- a. Smallpox
 - b. Chickenpox
 - c. Cytomegaly
 - d. Hepatitis A
 - e. Hepatitis B
723. The viral hepatitis B DNA presence is revealed for laboratorial diagnostics during last years. What type of reaction is it?
- a. Chain-polymerization test
 - b. Indirect-hemagglutination test
 - c. Complement-binding test
 - d. Immunoenzyme test
 - e. Inhibition of hemagglutination test
724. High-sensitivity methods are used for checking the presence of virus hepatitis B antigens in donors' blood. Which test should be used?
- a. Solid-phase Immunoenzyme test
 - b. Immunoelectrophoresis
 - c. Indirect-hemagglutination test
 - d. Complement-binding test
 - e. Neutralization test
725. A patient with signs of hepatitis is hospitalized to the infectious compartment. She is a stomatologist. What methods of laboratorial diagnostics must be use for "Viral hepatitis" diagnosis?
- a. Determination of HBs-antigen in blood serum
 - b. Virological examination of excrements
 - c. Virological examination of urine
 - d. Determination of functional activity of hepar (bilirubin and cholesterol in blood)
 - e. Determination of enzymes activity (aldolase, transaminase and other)
726. The donor who for a long time

didn't donate the blood was investigated with ELISA method.

1. Anti-HBs antibodies were revealed. What does positive result of ELISA in this case mean?
 - a. Acute hepatitis B
 - b. Have been ill a hepatitis B
 - c. Acute hepatitis C
 - d. Chronic hepatitis B
 - e. Chronic hepatitis C
727. HBs-antigen has been revealed during enzyme immunoassay in serum. What infection can be diagnosed by this antigen detecting?
 - a. Tuberculosis
 - b. Viral hepatitis A
 - c. Viral hepatitis B
 - d. AIDS
 - e. Syphilis
728. A patient is hospitalized with the previous diagnosis "hepatitis B". To diagnose the disease a serological reaction based on interaction of antigen and antibody, chemically linked to peroxidase or alkaline phosphatase, was carried out. Name this reaction.
 - a. Immobilization
 - b. Radio-immune assay
 - c. Immuriofluorescence test
 - d. Enzyme immunoassay
 - e. Complement fixation test
729. The gene of hepatitis B virus was integrated to a genome of variolovaccine virus, what provide the HBsAg creation. The recombined virus will be use like a vaccine. This vaccine is refer to:
 - a. Synthetic
 - b. Combined
 - c. Associate
 - d. Chemical

- e. Gene-engineering
730. The results of laboratorial tests of patient with jaundice are: HBsAg "-", HBeAg "-", anti-HBs(IgM) "-", anti-HBs(IgG) "+", HCCAg "+". What diagnosis is confirmed by these results?
 - a. Relapsis of hepatitis B
 - b. Hepatitis C
 - c. Chronic hepatitis B with low replicative activity
 - d. Hepatitis C, hepatitis B in anamnesis
 - e. Reinfection of hepatitis B
731. Testing of donor's blood to HBs antigen is not completely exclude a problem of posttransfusional hepatitis. Which of these viruses exclude hepatitis B virus most possibly can cause posttransfusional hepatitis?
 - a. Hepatitis E virus
 - b. Hepatitis A virus
 - c. Hepatitis C virus
 - d. Epstein-Barr virus
 - e. Cytomegalovirus
732. The patient is passing the clinical examination. Diagnostics of hepatitis viruses was done. Antibodies to HBs were revealed in a blood serum. This positive result means:
 - a. Tolerate hepatitis B
 - b. Acute hepatitis B
 - c. Acute hepatitis C
 - d. Chronic hepatitis B
 - e. Chronic hepatitis C
733. A child with complains what serve for a doctor as a base for diagnosis "viral hepatitis A" was hospitalize to infectious department In a month after returning from summer camp. What is the most possible

- infection mechanism of invasion by viral hepatitis A?
- Contact
 - Fecal-oral
 - Airdust
 - Transmissible
 - Parenteral
734. There are one of markers of hepatitis B was been detected at the blood analysis. Detecting what of markers of this hepatitis don't allow t use donor's blood for a hemotransfusion?
- HBc-antigen
 - HBs-antigen
 - HAV
 - HBe-antibodies
 - HBe-antigen
735. Patient M. was hospitalized to infectious department with the next complains: general malaise, rise in temperature of body to 38°C and jaundice. The doctor suspect a viral hepatitis B considering a hemotransfusion what had be done a few months ago. What are main methods for hepatitis B diagnostics?
- Serological and genediagnosics
 - Allocation of virus on a cells culture and identification by CPA
 - Revealing of virions in blood by electron microscopy
 - Isolation of virus in laboratorial animals
 - Isolation of virus in chicken embryo
736. At control of blood, the HBsAg was detected at one of the donors. Thus he said that recently he has a course of treatment with a parenteral entering of infusional solutions. Estimate a blood of this patient for transfusion.
- Is possible to use a packed red cells only
 - Blood is suitably to transfuse
 - Is possible to use a blood plasma only
 - Blood is no-suitably to transfuse
 - Blood can be used after processing
737. There is B and D viruses of hepatitis were detected at patient with a serious disease. As we know, Δ -virus can't reproduce in hepatocytes independence. About what process the reproduction of hepatitis D virus is possible in the presence of hepatitis B?
- Interference of viruses
 - Complementation of viruses
 - Genetic reactivation of defective viruses
 - Phenotypic mixing
 - Mutations in Δ -virus genome
738. HBsAg was detected at a patient's blood which had jaundice 10 weeks ago. What of pathology it is typical for?
- Viral hepatitis C
 - Viral hepatitis A
 - Viral hepatitis B
 - Viral hepatitis E
 - Viral hepatitis D
739. There are the vaccine among of biological drugs, what created by gene-engineering way. What of infection it is prescribed for?
- Hepatitis A
 - Poliomyelitis
 - Measles
 - Parotitis
 - Adenoviral infection
740. About what infection the detection of HBsAg in blood is display?
- Herpetical infection
 - Smallpox
 - Viral hepatitis A

- d. Poliomyelitis
- e. Viral hepatitis B

Laboratory diagnosis of diseases caused by DNA - viruses

741. For the diagnosis of generalized herpes infection was studied blood serum to detect specific antibodies of specific class. Antibodies of which class indicate the acute phase of viral infection?

- A. Ig M
- B. Ig A
- C. Ig E
- D. Ig D
- E. Ig. G

742. The risk of congenital malformations is 80% when infected pregnant women in the first trimester of pregnancy by the virus:

- A. Flu
- B. Mumps
- C. Rubella
- D. Hepatitis A
- E. Coxsackie

743. Which of the following infections in the human cause adenoviruses?

- A. Myocarditis
- B. Hepatitis
- C. Faringconjunctivitis
- D. Poliomyelitis
- E. Hemorrhagic fever

744. The patient, who received immunosuppressive therapy for systemic disease, signs of activation of CMV infection. Which method should be chosen to confirm the diagnosis?

- A. RAC, RN with paired sera
- B. The biological method
- C. Allergotest
- D. Investigation of cellular immunity
- E. Investigation of nonspecific resistance

745. To the hospital a woman at the age of 23 was admitted who during pregnancy has not passed routine microbiological and virological survey. Her baby has immediately after birth the skin and mucous small bubbles on the face of limited swollen spots. Later developed the damage of central nervous system and the baby was not saved. When sowing the contents of the bubbles in the blood agar growth of the pathogen have been identified, and during infection of tissue culture they observed CPE (simply, intranuclear inclusions, degeneration of cells). Which organism is the most likely causative agent of neonatal infections?

- A. Staphylococcus
- B. Gonococcus
- C. Chlamydia
- D. Herpes simplex virus
- E. Cytomegalovirus

746. The family Herpesviridae subfamily Alphaherpesvirinae belongs to:

- A. Varicella-zoster virus
- B. The virus of smallpox
- C. Coxsackie virus
- D. Cytomegalovirus
- E. Epstein-Barr virus

747. The main route of transmission of herpes simplex virus:

- A. Alimentary
- B. Contact
- C. Parenteral
- D. Air and dust
- E. Transplacental

748. The family Herpesviridae subfamily Betaherpesvirinae belongs to:

- A. Herpes simplex virus
- B. Varicella zoster virus
- C. Coxsackie virus

- D. Cytomegalovirus
E. Epstein-Barr virus
749. The family Herpesviridae subfamily Gammaherpesvirinae belongs to:
- A. Herpes simplex virus
B. Varicella zoster virus
C. The virus of smallpox
D. Cytomegalovirus
E. Epstein-Barr virus
750. As a rapid diagnosis of herpes infection apply:
- A. Enzyme Immunoassay
B. The reaction of neutralization
C. Immunofluorescence method
D. Radioimmunoassay
E. The reaction of hemagglutination
751. The main route of transmission of varicella:
- A. Alimentary
B. Respiratory
C. Contact
D. The parenteral
E. Transplacental
752. The center of persistent infection of shingles stored in:
- A. Spinal cord
B. Ganglia of spinal cord
C. Salivary glands
D. Nerve cells hippocampus
E. Anterior roots of spinal cord
753. For the specific prophylaxis of varicella developed:
- A. Live vaccine
B. Killed vaccine
C. Toxoids
D. Chemical vaccine
E. Idiotypic vaccine
754. CMV has tropism for cells:
- A. The spinal cord
B. Salivary glands
C. Lymphocytes
D. Airway epithelial cells
E. Epithelial cells of the gastrointestinal tract
755. In temperate countries Epstein-Barr virus usually causes:
- A. Hemorrhagic fever
B. Infectious mononucleosis
C. Lymphoma of Berkitt
D. Lymphocytic choriomeningitis
E. Nasopharyngeal carcinoma
756. In tropical countries the Epstein-Barr virus usually causes:
- A. Hemorrhagic fever
B. Infectious mononucleosis
C. Lymphoma of Berkitt
D. Lymphocytic choriomeningitis
E. Nasopharyngeal carcinoma
757. In Southeast Asia Epstein-Barr virus usually causes:
- A. Hemorrhagic fever
B. Infectious mononucleosis
C. Lymphoma of Berkitt
D. Lymphocytic choriomeningitis
E. Nasopharyngeal carcinoma
758. The penetration of rubella virus in macroorganism often occurs through:
- A. Lining of the airways
B. Intestinal mucosa
C. Mucosa of genital organs
D. The salivary glands
E. Damaged skin
759. Herpes simplex virus type 2 has a role in the development of:
- A. Berkitt's lymphoma
B. Nasopharyngeal carcinoma
C. Cervical Cancer
D. Leukemia
E. Breast Cancer
760. Genomic DNA viruses cause:
- A. Mumps
B. Tick-borne encephalitis
C. Rubella
D. Hepatitis A
E. Hepatitis B
761. In the kindergarten several cases of children's illness have been occurred. The clinical picture was

characterized by fever and the appearance in the throat, mouth and skin rash vesicular. The preliminary diagnosis - chicken pox. Which of the following materials should be sent to the virology laboratory for rapid diagnosis?

- A. The contents of the vesicles
- B. Sputum
- C. Swabs from the hands
- D. Urine
- E. Bile

762. The contents of the mucous membrane of the patient with vesicles smallpox were sent to the virology laboratory. Which of the following changes were detected by smear microscopy?

- A. Cells of Paschen
- B. Cells of Babesh - Negri
- C. Cells of Guarnieri
- D. Cells of Babesh- Ernst
- E. Syncytium

763. The student of medical school, hospitalized in the infectious disease clinic, on the 2nd day of the disease is suspected infectious of mononucleosis. What is the result of laboratory tests can confirm the diagnosis of a student on the day of admission?

- A. Detection of Ig M-antibodies to herpes simplex virus
- B. Detection of Ig M-antibodies to the Epstein-Barr virus
- C. Identification of 4-fold rise of antibodies to Epstein-Barr virus
- D. Isolation (separation) of the herpes virus
- E. Detection of antibodies to cytomegalovirus

764. Laboratory of Diagnostic Center received modern test systems to detect TORSN infection, which makes it possible to diagnose: 1)

toxoplasmosis, 2) rubiinfection, 3) cytomegaloinfection, 4) herpes infection. Which of these diseases are caused by viruses?

- A. Rubiinfection, cytomegaloinfection, herpes infection
- B. Rubiinfection, herpes infection
- C. Cytomegaloinfection, herpes infection
- D. All of the above
- E. Rubiinfection

765. The patient went to a doctor on the third day of illness with complaints of a rash in the form of vesicles on the lips and nose wings, painful when pressed. Appeared after pneumonia. What disease can be suspected?

- A. Herpes simplex
- B. Shingles
- C. Atopic dermatitis
- D. Erysipelas
- E. Hives

766. The patient with infectious of mononucleosis identified the antibodies to antigens of Epstein-Barr virus. Which of the following ways are the most common transmission for this pathogen?

- A. Alimentary
- B. Airborne
- C. Contact
- D. Sexual
- E. Parenteral

767. At 17 years old male diagnosed gingivostomatit caused, as was demonstrated by the FTA, the herpes virus. What method can be established that this disease is the result of primary or recurrent infection?

- A. Radioimunny analysis
- B. RAC with paired sera
- C. Infection of chick embryos and tissue culture

D. Determination IgG and IgM in serum

E. The immune electron microscopy

768. The patient asked the dentist complaining of the appearance of blisters on the lips with the liquid on the verge of the skin and mucous membranes. Which microorganisms can cause such pathology?

A. Mycobacteria

B. Streptococci

C. Herpes

D. Ortomyxovirus

E. Staphylococci

769. A patient has fever and the appearance of vesicles, which are located on the edge of the skin and mucous membranes. Through which research methods can confirm the presence in the patient of herpes simplex virus?

A. Microscopic and allergic

B. Virological and biological

C. Serological and biological

D. Microscopy and biological

E. Virological and serological

770. In the treatment of caries dentist drew attention to the existence of clusters of bubbles on the boundary of the skin and mucous membrane of lips. Which micro-organisms can cause such pathology?

A. Streptococci

B. Herpes

C. Mycobacteria

D. Ortomyxovirus

E. Staphylococci

771. The patient in the mucosa of the mouth, nose, lips, appeared vesicular vesicles. Dentist suspected vesicular stomatitis. What diagnostic method gives the opportunity to confirm the diagnosis?

A. Infection with vesicular fluid of animals

B. Statement of allergic tests

C. Isolation of bacteria from the vesicular fluid

D. Videlenie virus from vesicular fluid

E. Vesicular fluid microscopy

772. Female at the age of 32 years old suffers from recurrent viral infection. The disease appears vesicular eruptions on the lips and mouth, which are accompanied by fever and general intoxication. Which drug should be used for specific prophylaxis of recurrence of the disease?

A. Acyclovir

B. Interferon

C. Lysozyme

D. Herpetic inactivated vaccine

E. Donor gamma-globulin

Sanitary-microbiological examination of water, air, soil and food

773. When the sanitary-bacteriological examination of soil to determine perfringenstiter inoculation was made dilutions of the suspension of the soil on blood agar in Petri cups. Crops were grown in an incubator at a temperature of 37C. In a day colonies of clostridia have been identified.

What is the most likely cause a result that is observed?

A. For soil bacteria requires a lower temperature

B. The absence of necessary growth factors in a medium

C. Clostridium form colonies only after 3 days

D. The growth of clostridia was suppressed by microbes-antagonists, which are also present in the soil

E. Have not been provided with anaerobic conditions

774. In determining the quality of water wells, it was established that its microbial count is 200, if titer is 100. Determine the index of water.

- A. 100
- B. 10
- C. 5
- D. 2
- E. 0.5

775. In well water revealed the cholera bacteriophage 5×10^2 in the number of phage particles in 1 ml. Which method makes it possible to get these figures in?

- A. precipitation reaction with antiserum antiphage
- B. Electron Microscopy
- C. The titration method of agar layers
- D. density gradient ultracentrifugation
- E. Planting in culture medium

776. In the bacteriological laboratory conducted a study of drinking water quality. Its microbial count was around 100. Which micro-organisms considered in this?

- A. All bacteria that have grown in a nutrient medium
- B. Escherichia coli
- C. Bacteria pathogenic to humans and animals
- D. Opportunistic microorganisms
- E. Enteropathogenic bacteria and viruses

777. In determining the number of microbial air in the hospital it turned out that it is 1500 cells/m³. Which groups of organisms considered in this?

- A. Staphylococci and haemolytic streptococci
- B. Bacteria and viruses - pathogens of respiratory infections
- C. All bacteria that have grown in a nutrient medium
- D. Agents of hospital infections

E. All pathogenic and opportunistic bacteria

778. During the sanitary-bacteriological tests of tap water have the following results: the total number of bacteria in 1.0 ml - 80 cells, the index - 3. How to interpret the result of the study?

- A. The water quality questionable
- B. Water suitable for drinking
- C. Water quality is very questionable
- D. The water is contaminated
- E. The water is very polluted

779. During the sanitary-bacteriological examination of water using membrane filters revealed two red colonies on a membrane filter (Wednesday Endo), who conceded in 500 ml of water under study.

Calculate the index and the titer of investigated water

- A. 4 and 250
- B. 2 and 500
- C. 250, and 4
- D. 500 and 2
- E. 250 and 2

780. To assess the suitability of drinking water conducted bacteriological research. Which indicator shows the number of coliforms, which is contained in 1 liter of drinking water?

- A. Perfringens-titer
- B. Coli-titer
- C. Coli phage titer
- D. Coli-index
- E. Microbial number

781. When checking the condition of air in the operating room before surgery sedimentation method revealed five small, round colonies, which are clearly visible around the zone of hemolysis. What kind of impact has been made the crops on?

- A. Levine

- B. IPA
- C. Endo
- D. VSA

E. MPA blood

782. The study of air in the operating room revealed that it does not satisfy the sanitary and bacteriological standards. Isolation of microorganisms which allowed making such a conclusion?

- A. Sarsiny 200 / m³
- B. Actinomycetes 100 / m³
- C. E. coli 10 / m³
- D. Hemolytic streptococcus 5 / m³
- E. Staphylococcus aureus 3 / m³

783. In the laboratory of food hygiene of regional SES delivered withdrawn from the seller beef mince in the market. The buyer has doubts about the quality of meat. He believes that the stuffing is made of dog meat. What is an immunologic response can check the quality of the delivered product?

- A. The reaction of precipitation
- B. The reaction of Coombs
- C. agglutination
- D. Reaction of opsonization
- E. Reaction immunofluorescence

784. In the tray of a private entrepreneur sold the minced meat, according to the seller of beef. However, the sanitary inspector suspected that stuffing is made of dog meat. Through which reaction can be identified this food?

- A. Flocculation
- B. Binding of complement
- C. Agglutination
- D. Ringprecipitation
- E. ELISA

785. In the infectious ward three students were brought who lived in the same room, with a diagnosis of "acute gastroenteritis." The disease

occurred after ingestion of cooked meat, which remained at room temperature during the day. What is the most probable result of seeding of pathological material (gastric washings and feces) on the culture media?

- A. The blue colonies on agar, alkaline
- B. Crimson colonies on Endo medium
- C. Uncoated colonies on Endo medium
- D. Yellow colonies on VSA
- E. Large slimy colonies on MPA

786. In the laboratory of sanitary-epidemiological station we study the quality of drinking water. What method can be determined if the index and the number of water-titer?

- A. Filtration
- B. Sedimentation
- C. Serial dilutions
- D. The method of titration
- E. Microscopic

787. In carrying out sanitary-bacteriological examination of air in a dental office to determine the number of sanitary-indicative microorganisms (Staphylococcus aureus and hemolytic streptococci) in 1 m³ of air. What is the culture medium used for this?

- A. Blood and yolk-salt agar
- B. MPA and MPB
- C. Endo and Ploskirev Medium
- D. The yolk and sugar broth
- E. Kitt Tarotstsi and Wilson-Blair Medium

Normal microflora of the human body

788. The patient, who has long taken antimicrobials, conducted bacteriological examination of vaginal microflora and determination of pH. The absence of lactobacilli and alkaline conditions. What should be

assigned the patient to restore normal microflora of the vagina?

- A. Lactic acid bacteria
- B. Suppositories with antibiotics
- C. A solution of potassium permanganate
- D. Sulfanilamide drugs
- E. Suppositories with antiseptic

789. Cancer patients removed most of the large intestine. Which drugs should be assigned to the patient to replace the function of colon microflora?

- A. Vitamins
- B. Antistaphylococcus plasma
- C. Polyvalent bacteriophage
- D. Antibiotics
- E. Sulfonamide

790. The patient after prolonged use of antibiotics developed intestinal dysbiosis. Which drugs should be appointed to restore the normal microflora?

- A. Sulfonamide
- B. Eubiotics
- C. Interferon
- D. Antifungal
- E. Cephalosporin

791. When dysbiosis, which is accompanied by the development of putrefactive flora and increase the pH of faeces, it is necessary to assign biological agents that oxidize medium and exhibit an antagonistic effect. What organisms are used for this?

- A. Bifidumbacteria
- B. Klebsiella
- C. Azotobacteria
- D. Enterobacteria
- E. Sarcina

792. There is dysfunction of the intestine at 10 years old child for three months. Investigation of fecal material of disbiosis gave the following results: bifidobacteria -

5h108; lactobacilli - 109; the total number of E. coli -107; Escherichia coli with reduced enzymatic properties - 8%; opportunistic enterobacteria - 5x10; staphylococci 104; hemolytic staphylococci were not identified, fungi of the genus Candida 102. To what extent these data indicate disbiosis?

- A. Norma
- B. I degree
- C. II degree
- D. III degree
- E. The resulting data are insufficient for assessing disbiosis

793. The patient at the age of 68, who was a three-week course of antibiotics, bowel dysfunction is marked, abdominal pain. The study on fecal bacteria overgrowth yielded the following results:

bifidobacteria-5x 10⁵, lactobacilli-10², the total number of E. coli - 10¹⁰, E. coli with reduced enzymatic properties - 40%; hemolytic E. coli - 10% opportunistic enterobacteria-10⁵, hemolytic aureus - 10², fungi of the genus Candida - 10³. To what extent these data indicate dysbiosis?

- A. Norma
- B. I degree
- C. II degree
- D. III degree
- E. The resulting data are insufficient for assessing dysbiosis

794. Child of 5 months, which is on artificial feeding, recovering from kolienterit. Before discharge from hospital a study was conducted quantitative and qualitative composition of intestinal microflora. Obtained the following results:

bifidobacteria - 5×10^7 ; laktobatsily - 108;
total coliform-109, E. coli with reduced enzymatic properties - 10%; hemolytic E. coli - 5%
opportunistic enterobacteria - 105; aureus - 104; fungi of the genus Candida - 103. What tools are most appropriate for corrections of microbiotsenosis intestine in a child?
A. Antibiotics that selectively inhibit the growth of staphylococci and yeasts
B. Inclusion of milk products in the diet
C. Bifidumbacterin
D. Colibacterin
E. Lactobacterin

795. Pregnant woman was diagnosed with bacterial dysbiosis of vagina. Which drug should be chosen in this case?
A. Bacteriophage
B. Antibiotic
C. Interferon
D. Eubiotics
E. Polyvitamins

796. In a patient of 56 years old after prolonged treatment with antibiotics developed dysbiosis: weight loss, frequent stools, a significant amount of fecal hemolytic E. coli, Proteus, Staphylococcus. Which of the following actions would eliminate the imbalance autochthonous microflora:
A. Replace the antibiotics and to phage therapy
B. Cancel the antibiotics and sulfa drugs to appoint
C. Cancel antibiotics and assign eubiotics
D. Provide chelators and immunomodulators.
E. Provide drugs and adjuvants.

The microflora of the mouth.

797. 63 years old man turned to the dentist complaining of a complication during chewing. The doctor suspected the development of tetanus infection. As it was found a week ago, the patient is deeply pierced his leg with a rusty nail. What material should be sent to study in the bacteriological laboratory to confirm the clinical diagnosis?

- A. Serum of patients
- B. Blood patient
- C. Smear from the surface of the wound
- D. Pieces of necrotic tissue
- E. Flush with subject matter that was the cause of injury

798. 32 years old man in the lower jaw formed dense, flushed swelling, pain is virtually nonexistent. After 2 weeks, pus appeared on the surface of the hearth, formed a fistula, a chronic infectious process was slow and extends to the underlying tissue. Microscopy of pus was found beads that represent a collection of threads, as well as individual rod-shaped and coco form. What is the most likely diagnosis?

- A. Actinomycosis
- B. Deep mycosis
- C. Candidosis
- D. Nocardiosis
- E. Mixed bacterial infection

799. The man at the age of 21 turned to the doctor with a dense rounded ulcer on the mucous surface of the cheek. The doctor suspected syphilis and gave direction to the study of serum. Wassermann was negative. The doctor put the negative diagnosis. How to evaluate the tactics of a doctor?

- A. You must repeat the study in a few

days

B. A numerical method for the diagnosis and the correct diagnosis

C. There should also be staging the sedimentary response by Cann

D. Must be microscopic study

E. The need for formulation of an allergic test

800. At the dental examination of the child of 3.5 years old of the mucous membrane of cheeks and palate doctor said raids of white and yellow colors that merge to form a cheesy film.

When removing the film - the mucous membrane is hyperemic, with a smooth surface. What picture will most likely be observed by microscopy of smears from these films?

A. Gr + cocci, arranged in a cluster of grapes

B. Gr + cells elongate budding

C. Gr + cocci arranged in chains

D. Gr + rods with swellings at the ends

E. Gr - small coccobacilli

801. Bacteriological examination of 10 years old boy's mouth revealed a large number of β -hemolytic streptococci. What is the most credible explanation for this phenomenon?

A. The diet of the boy too much carbohydrate

B. The child is sick caries

C. The child is sick periodontal

D. The boy observes bad oral hygiene

E. β -hemolytic streptococci are the representatives of normal microflora

802. From the oral cavity of clinically healthy man at the age of 25 years old has identified the culture of Gr + cocci, which are somewhat elongated, arranged in pairs or short chains form a capsule on blood agar yield of

alpha-hemolysis. Is this man a carrier of some kind of pathogen of microorganism?

A. Streptococcus salivarium

B. Streptococcus pyogenes

C. Streptococcus pneumonia

D. Streptococcus feacalis

E. Peptostreptococcus

803. At the patient's buccal mucosa revealed net shaped ulcer with hard bottom and smooth edges. Which organisms are most likely to be observed by microscopy of fluid from the surface of an ulcer?

A. Thin, spiral, motile

B. Acid FAST Sticks

C. Gr + cocci arranged in chains

D. Large spore bacillus

E. Bipolar colored ovoid

804. Dental instrument has been sterilized by boiling for 5 minutes.

Which organisms, have got it out of the mouth or the patient's blood, are likely to preserve?

A. Diphtheroids

B. AIDS virus

C. Streptococci

D. Fuzobacteries

E. Hepatitis B virus

805. Dentist analyzed the qualitative composition of microflora of the mouth's 70-year-old man, and concluded its worst condition.

Identify what microorganisms allowed to make such a conclusion?

A. Streptococcus mutans

B. Treponema denticola

C. Escherichia coli

D. Mycoplasma orale

E. Candida albicans

806. In the pus taken from a depth of necrotic ulcer of the patient necrotizing ulcerative stomatitis, identified fuzobacteries. What other organisms are involved in the

development of this disease and to stand out in association with fuzobacteries?

- A. Streptococci
- B. Mycoplasmas
- C. Yeast-like fungi
- D. Spirochetes
- E. Diphtheroids

807. At 17 years old male diagnosed gingivostomatitis caused, as was demonstrated by the FTA, the herpes virus. Through a method to establish whether the disease is caused by primary or recurrent infection?

- A. Radioimmunoassay
- B. RAC with paired sera
- C. Contamination of chicken embryos and tissue culture
- D. Determination of IgM and IgG in serum
- E. The immune electron microscopy

808. From the dental patient was taken the pus from the abscess to investigate, which is located on the lower jaw. Pathological material planted on blood agar for detection of cocci and on Kitt Tarotstsi medium for detection of anaerobes. Which method of microbiological diagnosis was used in this case?

- A. Bacteriological
- B. Smear
- C. Virological
- D. Serological
- E. Biological

809. Microscopy of dental plaque was detected moving spiral-like bacteria. Which method allowed us to establish the mobility of these organisms?

- A. Fluorescent microscopy
- B. Darkfield Microscopy
- C. Staining with Romanovsky-Giemsa
- D. Staining of Gins-Burri
- E. Electron microscopy

810. Choose among the normal microflora the oral obligate anaerobes.

- A. Streptococci, staphylococci
- B. Bacteroids, fuzobacteries
- C. Corynebacterium, veylonelly
- D. Mycoplasmas, Borel
- E. Leptospira, Candida

811. Patient D. appealed to the dentist with complaints on halitosis (unpleasant odor from the mouth). What bacteria dominate the microflora of the oral cavity in this case?

- A. Genus Proteus
- B. Type of Bacteroides
- C. Type of Corynebacterium
- D. Type of Escherichia
- E. The genus Clostridium

812. Bacteriological examination of the oral cavity of dental patients revealed a number of microorganisms. Which of them belong to eukaryotes?

- A. Mycoplasma orale
- B. Streptococcus mutans
- C. Candida albicans
- D. Treponema buccalis
- E. Bacteroides melaninogenicus

813. In the mouth of 55 years old man was found staphylococcus, which forms enzymes hyaluronidase and collagenase. What are the most possible damage it may cause the organism?

- A. The destruction of the connective tissue
- B. demineralization of tooth enamel
- C. The formation of tartar
- D. Change of periodontal tissue trophism
- E. Necrosis of the epithelium

814. In a patient with recurrent inflammatory lesions in the oral cavity bacteriological examination revealed a large number of

gramnegative bacteria. What conclusion should be drawn regarding the patient's condition?

- A. Dysbiosis
- B. T-cell immunodeficiency
- C. Candidosis
- D. Recurrent herpes
- E. An allergic condition

815. The patient has a dental clinic in Flushing oral mucosa sowed E. coli. Which members of the microflora of the mouth, these bacteria belong to?

- A. Resident
- B. Transient
- C. Causal agent of caries
- D. The causative agent of stomatitis
- E. Pathogen of pulpitis

816. Patient B., aged 59, appealed to the dentist about halitosis. After detailed examination the doctor found that the cause of halitosis (halitosis) was associated with a violation of the microflora of the mouth. Which of these microorganisms may play a central role in the development of halitosis?

- A. Anaerobic bacteria (prevotely, bacteroids, peptostreptococci, veiloneli)
- B. Bifidobacteria
- C. The simplest (Entamoeba gingivalis, Trichomonas elongate)
- D. Facultative anaerobic cocci (staphylococci, streptococci)

Microbiological and immunological aspects of the etiology and pathogenesis of dental caries.

817. Caries is the result of a complex of harmful factors in the oral cavity. The initial phase of caries is a direct consequence:

- A. The provision of the teeth of a film of saliva glycoprotein
- B. Synthesis of Streptococcus mutans

glucan

C. microbial insemination plaque anaerobes

D. The formation of dental plaque bacteria, organic acids

E. IgA class of antibodies against components of the microflora in the oral cavity

818. After opening the maxillary abscess, which is accompanied by swelling of the tissues of the face, the temperature up to 39C, pus was taken and sent to the bacteriological laboratory. The study found that pathological material containing microorganisms of the genus Bacteroides. What are the types of microorganisms of the usage of oxygen they are?

- A. Optional aerobes
- B. Aerobes
- C. Anaerobes
- D. Gram-negative bacilli
- E. Gram-positive cocci

819. One of the factors that contribute the development of dental caries in humans is the formation of a significant number of microorganisms of lactic acid. Choose among the listed microorganisms that ferment carbohydrates to form a large amount of lactic acid.

- A. Staphylococcus, Corynebacterium
- B. Veiloneli, Streptococcus
- C. Fuzobacteries, lactobacilli
- D. Treponema, Neisser
- E. Actinomycetes, fungi

820. Patient appealed to the dentist with initial stage of pulpitis. What organisms are at this stage of the disease?

- A. Oral streptococci, lactobacilli
- B. Beta-hemolytic streptococci, bacteroides
- C. Proteus and Clostridium

D. *E. coli*
 E. Anaerobic streptococci

821. Dentist conducts a conversation among school children in caries prophylaxis. What are the substances that are contained in foods contribute the growth and multiplication of streptococci, and are of high importance in the occurrence of dental caries?

A. Carbohydrates
 B. Proteins
 C. Fats
 D. Vitamins
 E. Micro-and macro-

822. Patient appealed to the dentist complained of pain in the fifth lower right tooth, which appears in the use of food as well as discomfort when applied to a tooth cold or hot. While examination, the doctor found a tooth cavity. In probing the bottom of the cavity particularly painful points were found, indicating a deep cavity. Specify a group of cariogenic microorganisms.

A. *S. salivarius*, diphtheroids, peptococci
 B. *S. mutans*, lactobacili, actinomycetes
 C. *S. mitis*, Treponema, Neisser
 D. Stomatococci, leptotrihii, Staphylococcus
 E. Veilonella, Treponema, Borrelia

823. Lactobacilli are cariogenic microorganisms because they are:

A. Able to survive without nutrients
 B. Stand out from the cavity
 C. The producers of acid
 D. In plaque
 E. Cytochromoxidaznegative

824. 28 years old patient appealed to the dentist complaining of a throbbing toothache, which gives the temple. Found in probing the cavity felt pain

all over her bottom, which is characteristic of acute pulpitis. What are the most common organisms involved in the development of pulpitis?

A. *Staphylococcus aureus*.
 B. *Streptococcus salivarius*.
 C. *Actinomyces viscosus*.
 D. *Leptotrichia buccalis*
 E. *Prevotella melaninogenica*.

825. In a patient with multiple caries was carried out immunological test that will assess the humoral local immunity in the oral cavity. Specify the ratio of IgA, IgG, IgM characteristic of healthy human saliva?

A. 4:2:1
 B. 5:2:2
 C. 1:4:2
 D. 20:3:1
 E. 1:1:2

826. Patient appealed to the dentist with multiple cavities. What properties are the most common bacteria that cause tooth decay?

A. Lysogenic
 B. Resistance to antibiotics
 C. Lipolytic
 D. Acidogennye (saccharolytic)
 E. Fagolizabelnye

827. Dentist conducts preventive conversation among students on compliance with the rules of hygienic dental care. He told the children that in violation of hygienic care of teeth formed on the surface of dental plaque, which is dangerous to the teeth. It is formed in:

A. Three to six months
 B. A few hours
 C. One month
 D. Thirty minutes
 E. A few days

828. During a routine inspection of

schoolchildren dentist revealed that the majority of carious no damage to teeth. How secretory IgA to protect against cariogenic *S. mutans*?

- A. It prevents adhesion
- B. Cause lysis
- C. Phagocytose
- D. Neutralize exotoxin
- E. Loosen the saccharolytic activity

829. Inoculation of pathological material from the patient pulpitis was made on Kitt Tarotsti medium.

Which microorganisms are committed?

- A. Hemolytic
- B. Acid
- C. Acidophilic
- D. Anaerobic
- E. Aerobic

830. While examination the patient's teeth dentist found many "white spots" - areas of demineralization of enamel. Indicate which microorganism take part in the development of this process?

- A. *Streptococcus mutans*
- B. *Streptococcus salivarius*
- C. *Streptococcus pyogenes*
- D. *Veillonella parvula*
- E. *Staphylococcus epidermidis*

831. The first stage of dental caries is the formation of zones of demineralization of enamel. What are the microbial factors involved in the development of this process?

- A. Coagulase of golden staphylococcus
- B. Collagenase anaerobic bacteria
- C. *Streptococcus mutans* acid formation
- D. Letsitinaz of staphylococci
- E. Streptococcal exotoxins

832. Dental surgeon had a puncture phlegmon in a patient with fever the face. What material should be sent

to baclabulatory?

- A. swab from the oropharynx
- B. Blood, purulent exudates
- C. Cerebrospinal fluid
- D. Duration of the tonsils
- E. Blood, urine

833. In the occurrence of dental caries is very important plaque formation.

What is

predominant microflora in the early formation of dental plaque.

- A. Obligate anaerobes
- B. Streptococci, veillonella
- C. Fuzobacteries
- D. Bacteroids, Candida
- E. Leptotrihii

834. The patient with pulpitis has edema of the soft tissues of the upper jaw. Which factor is the lead in the occurrence of edema?

- A. Tissue gipoosmiya
- B. Tissue gipoosmiya
- C. Blood gipoosmiya
- D. Blood gipoosmiya
- E. Increased permeability of blood vessels.

835. For anticaries immunization offered the vaccine from a suspension of heat-killed *S. mutans*. What side effects are possible when using this drug?

- A. Hepatic Impairment
- B. Cardiac
- C. Mucous membranes
- D. The defeat of the periodontal tissues
- E. Lung

836. Caries - one of the most common dental illness .Through the development of methods of caries prophylaxis in recent years their hopes on the use of anticaries vaccines of *S. mutans*. The primary defense mechanism of such vaccination is associated with:

- A. Education secretary Ig A, which prevents the adhesion of *S. mutans*
 - B. Formation of delayed-type hypersensitivity
 - C. Activation of saliva lysozyme
 - D. The production of antistreptolysin-O
 - E. Stimulation of Ig E production
837. Local immunity in the oral cavity is largely due to the content of antibodies in saliva. Antibodies are a class of saliva in higher concentration than in blood, whereas the content of the saliva and blood about the same?
- A. Ig G
 - B. Ig A
 - S. IgM
 - D. D Ig
 - E. Ig E
838. Bacteriological examination of patients with dental caries has been allocated different microorganisms. Which of the following microorganisms play a leading role in the occurrence of caries in these patients?
- A. *Streptococcus mutans*
 - B. *Staphylococcus aureus*
 - C. *Candida albicans*
 - D. *S. salivarius*
839. As a result of delayed treatment of pulpitis patient rozvilsya osteomyelitis of the mandible. What research will identify the agent and find an effective drug to treat a patient?
- A. Identification of antigens of the pathogen
 - B. Detection of specific antibodies
 - C. Microscopic examination of punctate
 - D. Isolation of pure cultures
 - E. Complex serology
840. In the department of maxillofacial surgery patient was

- diagnosed with suppurative complication. In the bacteriological examination of material from a wound culture was isolated, which formed the pigment of blue-green color. Which of the following microorganisms may be the causative agent of infection in this case?
- A. *Proteus vulgaris*
 - B. *Pseudomonas aeruginosa*
 - C. *Bacillus subtilis*
 - D. *Klebsiella pneumonia*
 - E. *Staphylococcus eridermidis arius*
841. The patient asked the dentist about the gingival and alveolar gnoetdelenie caused by Gram-positive bacteria. Microorganisms are the kind most often cause a purulent-inflammatory processes of maxillofacial area?
- A. *Staphylococcus*
 - B. *Streptococcus*
 - S. *Veilonella*
 - D. *Lactobacillus*
 - E. *Bacteroides*
842. Of the cavity and dental plaque streptococci isolated several species thought to be the main factors of this disease. To what family in the systematics of bacteria are called Bergey bacteria?
- A. Veilonellaceae
 - B. Streptococcaceae
 - C. Mycoplasmataceae
 - D. Bacteroidaceae
 - E. Micrococcaceae
843. From the mouth of 5 years old child, the sick tooth decay, isolated Gr + organisms correct spherical form. In smears, they are in chains, on blood agar give small translucent colonies without hemolysis. Which type is most likely owned by the microorganisms?
- A. *Streptococcus mutans*

B. *Staphylococcus saprophyticus*

C. *Mycoplasma orale*

D. *Candida albicans*

E. *Bacteroides melaninogenicus*

844. 20 years young man caries led to complications: inflammation of the dental pulp. Dentist believes that it was caused by streptococci pulpitis. What kind of fertile ground to sow the pathological material (pulp content) in order to test this hypothesis?

A. IPA

B. Blood agar

C. Endo Wednesday

D. Folded serum

E. The alkaline agar

845. In a patient with caries tooth surfaces have been identified caries white spots in the formation of which microorganisms are involved. Dentist after treatment caries of teeth suggested the patient to take prophylaxis measures for the prevention of tooth decay. What factors should be sent these preventive measures on?

A. The carbohydrate nutrition and *S. mutans*

B. At the protein diet and *S. aureus*

C. The carbohydrate nutrition and *S. aureus*

D. At the protein diet and *S. mutans*

E. The carbohydrate nutrition and *S. sanguis*

846. Based on the examination of the patient K. doctor of maxillofacial department district hospital has put a preliminary diagnosis of "acute odontogenic osteomyelitis."

Microscoping the drug, made from pathological material, laboratory showed Gram-positive bacteria spherical shape, which is arranged in a random clusters ("grapes"). Which organism is the causative agent of

odontogenic disease?

A. *Staphylococcus*

B. *Actinomycetes*

C. *E. coli*

D. *Streptococcus*

E. Against

847. In the maxillofacial unit of the regional hospital surgery on the submandibular phlegmon site was performed. With the help of what method of microbiological studies can establish the etiology of this disease in order to conduct an effective antibiotic in the out functional period?

A. Allergic

B. Bacteriological

C. Biological

D. Tuberculosis microscopy

E. Serological

848. Which microorganisms often act as agents of abscesses in maxillofacial area?

A. *Lactobacilli* and diphtheroids

B. *Actinomycetes* and *veilonelli*

C. *Escherichia coli* and *Streptococcus*

D. *Staphylococcus* and *Streptococcus*

E. *Pseudomonas aeruginosa* and *Proteus*

849. In the department of maxillofacial surgery patient was admitted with a solid phlegmon and multiple fistulas, of which stands out the pus with a foul odor. Which method should be applied to confirm the diagnosis of actinomycosis?

A. Smear

B. Biological

C. Bacteriological

D. Mycological

E. Serological

850. After tooth extraction in patients with progressive suppurative inflammation. Microscopic examination of pus revealed gram-positive nonmotile, thick, surrounded

by a capsule bacillus. What method is necessary to confirm the preliminary diagnosis - gas anaerobic infection?

- A. Allergic
- B. Bacteriological
- C. Biological
- D. ELISA
- E. Serological

851. The patient appealed to the dentist with an acute pulpitis. Which microorganisms play a major role in the inflammation of the pulp?

- A. Streptococci of group D
- B. Vibrio
- C. Spirillum
- D. Sarcina
- E. Micrococci

852. As a result of delayed treatment of pulpitis osteomyelitis of the mandible was developed in patient. With some research you can set the type of agent and find an effective drug to treat a patient?

- A. Isolation of pure cultures
- B. Appearing of specific antibodies
- C. Microscopic examination punctate
- D. Appearing of pathogen antigens
- E. Integrated serology

853. The patient appealed to the dentist with symptoms of inflammation in the oral cavity. In smears that are made from the teeth and gums are revealed in the simplest form of non-constant, which varies due to the formation pseudolegs. Sizes - 6 to 30 microns. Indicate the type of protozoa.

- A. Oral amoeba
- B. Giardia
- C. Intestinal Amoeba
- D. Intestinal trichomonads
- E. Dysenteric amoeba

Microbiological and immunological aspects of the etiology and

pathogenesis of periodontal lesions

854. The patient appealed to the dentist with necrotizing ulcerative stomatitis. What organisms are naturally in the inflammation?

- A. beta-hemolytic streptococci, bacteroides
- B. Fuzobacteries Vincent and Treponema

C. Proteus and Clostridium
D. E. coli

E. Anaerobic streptococci

855. The patient, 36 years old, appealed to the dentist complaining of pain in the lower six tooth when chewing, bleeding from a tooth while eating and feeling bad smell. What caused halitosis?

A. Education microorganism's methyl and hydrogen sulfide.

B. Synthesis of microbial hyaluronidase

C. Products of microorganisms of lactic acid

D. The products of the destruction of tissues by microorganisms

E. The presence of endotoxin microorganisms

856. After examining the patient the dentist decided that the bacteriological examination of pathological material taken from a patient is not feasible. Under what conditions could this be?

A. To determine the sensitivity of microorganisms to antibiotics abnormality

B. Under the conditions of specific diseases (eg, tuberculosis)

C. Subject to the allergic nature of the pathological process

D. In the case of purulent processes

E. Under the conditions necessary to clarify the nature of the infectious lesions of the mucous membrane

857. The patient D. appealed to the dentist with complaints of pain in the gums, swelling of pus, redness, formation of granulomas. Pus sent in laboratory. In blood smears revealed gram-positive organisms in the form of filaments at the ends of which were controversial. What organisms cause inflammation?

- A. Herpes
- B. *Mycobacterium leprae*
- C. *Treponema pallidum*
- D. *Bacillus anthracis*
- E. *Actinomyces israelii*

858. The patient appealed to the dentist with complaints of pain, redness, swelling gums. Suspected herpetic gingivostomatitis. What virus could cause disease?

- A. Herpes simplex virus type 1
- B. Herpes simplex virus type 2
- C. Zoster virus
- D. Cytomegalovirus
- E. Epstein-Barr

859. On examination, the patient's oral cavity revealed a necrotizing gingivitis. Bacteriological examination revealed *Fusobacterium nucleatum*, *F. necrorum*. What are the serious complications of this infection are at?

- A. Severe necrotic processes in the destruction of tissues of the face (noma)
- B. Gingivostomatitis
- C. Periodontal Disease
- D. Chronic lip fissures
- E. Bridou

860. In patients with chronic periodontitis scheduled for a study to assess the local immunity of the mouth. Where exactly are localized plasma cells that synthesize immunoglobulins, oral fluid?

- A. In their own record of the mucosa

- and salivary glands
- B. In the lymph nodes
- C. In the spleen
- D. In the thymus
- E. In bone marrow

861. It is known that periodontitis is the result of the different species of bacteria and their metabolic products. What type of bacteria produces collagenase, which breaks down collagen - the main protein component of the periodontium?

- A. *Prevotella melaninogenica*
- B. *Treponema vincenti*
- C. *Veillonella parvula*
- D. *Leptospira dentium*
- E. *Treponema dentium*

862. The patient as a result of activation of their own microorganisms that are part of the microflora of the oral mucosa, had purulent inflammation of periodontal tissues. Which form of infection disease belongs to?

- A. Exogenous infection
- B. Autoinfection
- C. Reinfection
- D. Superinfection
- E. Relapse

863. In the doctor's office, periodontist for the appointment of strengthening therapy, the patient studied factors of nonspecific resistance of saliva and secretions of the mucous membrane. Which of the following factors of nonspecific resistance in the first place will be studied in the material?

- A. Complement
- B. Secretory IgA
- C. Properdin
- D. Interferon
- E. Lysozyme

864. From the material studied patient periodontium in association with

gram-negative spirochetes were detected microorganisms rod with pointed ends. The bacteria belong to the autochthonous microflora of the oral cavity. Can form of peptone and glucose lactic acid. Which family owns the selected bacteria?

- A. Lactobacillus
- B. Treponema
- C. Actinomices
- D. Fusobacterium
- E. Bacteroides

865. During routine inspection the dentist revealed periodontal disease in the pupil. It is established that periodontal disease is a complication of previously transferred to viral infection, in which damaged small vessels. The disease is caused by a virus of the family Paramyxoviridae genus Morbillivirus. Virus complex, has hemagglutinin, neuraminidase does not contain very sensitive to sunlight. Outside the body is preserved up to 30 minutes. Which virus caused the disease transferred?

- A. Mumps virus
- B. The influenza virus
- C. Measles virus
- D. The paragrapp virus
- E. Respiratory syncytial virus

866. For microbiological diagnosis of odontogenic disease dentist spends fence material. In what period it is expected to do?

- A. After 3-4 hours after ingestion of food
- B. After 8-10 hours after ingestion of a meal
- C. Before taking food
- D. Immediately after taking the meal
- E. After the starvation

867. During periodontitis the surface structure of tissues changes. What processes must be studied to assess

the body's response to the changed structure of the periodontium?

- A. Autoimmune
- B. Immune
- C. Purulent and inflammatory
- D. Antibody
- E. Leukocytosis

868. From a patient with apical periodontitis material is taken to isolate pure cultures of the pathogen. Where can patmaterial be sowed for isolated colonies?

- A. On the surface of the agar in a Petri cup
- B. On the surface slant
- C. The liquid culture medium
- D. Injection into a column of dense medium
- E. In the elective medium fluid consistency

869. From a patient with a diagnosis of periodontal disease in the bacteriological examination of clinical material were isolated gramnegative polymorphic bacilli, which grow only under anaerobic conditions and whimsical to the culture medium. Which of the following microorganisms may they be?

- A. Bacteroids
- B. E. coli
- C. Clostridium
- D. Mycobacteria
- E. Rickettsia

870. At the time of discharge from the gums microscopy patient who is suffering from periodontal disease, identified the simplest form of pear-shaped, 6-13 mm in length. In one of the parasite nucleus, on the front end has 4 flagella, undulating membrane is. What are protozoa found in the patient?

- A. Amoeba
- B. Guardia

- C. Leishmania
- D. Balantidium
- E. Trichomonas

Microbiological and immunological aspects of the etiology and pathogenesis of infectious lesions of the oral mucosa

871. The young man was found severe gingivostomatitis and microbiological study of oral fluid was isolated fusiform bacteria and spirochetes oral. What gingivostomatitis arose in this patient?
- A. Gingivostomatitis caused by the anaerobic microflora
 - B. Gingivostomatitis Vincent
 - C. Bacterial gingivostomatitis
 - D. Primary gingivostomatitis
 - E. Viral gingivostomatitis
872. Dentist found in the oral mucosa of sick girl, 7 years old, ulcer 1.5 cm in diameter with irregular edges and saucer-shaped gray bottom. After the paint scrapings from the ulcer by Ziehl-Neelsen in the drug revealed thin rods of ruby-red color, arranged in random clusters and alone. For a pathogen is characterized by such symptoms?
- A. Actinomycosis
 - B. Syphilis
 - C. TB
 - D. Diphtheria
 - E. Candidiasis
873. Of pathological material from a sick child (scraping of the sores on the mucous membrane of the mouth) medication prepared and stained by Ziehl-Neelsen. Identification of the causative agent provided?
- A. FMD
 - B. Actinomycosis
 - C. Syphilis
 - D. Herpes
 - E. TB

874. In the virology laboratory in the study of fluid from the vesicles on the mucous membrane of cheeks, patient C was isolated vesicular stomatitis virus. Which the family belongs the virus to?

- A. Rinoviridae
- D. Poxviridae
- C. Rhabdoviridae
- D. Reoviridae
- E. Togaviridae

875. In a study of patients with congenital immunodeficiency, S. dentist found on the oral mucosa vesicles filled with turbid yellow fluid and diagnosed a viral stomatitis. What is the most common virus is the causative agent of this disease?

- A. Herpes simplex virus type 1
- B. Herpes simplex virus type 2
- S. Herpes simplex virus type 3
- D. A virus Coxsackie
- E. Coxsackievirus B

876. Patient K., age 67, after a few months after the establishment of a fixed prosthesis teeth he asked the dentist about the swelling, redness and irritation of the mucous membranes of the mouth, appears at the corners of his mouth, "bridous". Which of the following organism is the cause of these complications after prosthesis?

- A. Veillonella
- B. Staphylococcus
- C. Streptococcus
- D. Candida
- E. Treponema

877. In the dental clinic brought a child with fever, complaints of painful sores on the mucous gums that look like blisters with serous contents. In the smear from vesicles stained by Romanovskiy-Giemsa, revealed giant multinucleated cells with intracellular

inclusions. Which virus caused the disease?

- A. Alpha-herpes
- B. Beta-herpes
- C. Gamma-herpes
- D. HIV
- E. KSIP viruses

878. Patient appealed to the dentist with fever and characteristic small vesicles on the mucous membrane of cheeks, palate and tongue. The doctor suspected herpetic stomatitis. What additional research is necessary to confirm the diagnosis?

- A. Infection of chick embryos in horizontalontois, the introduction of the pathological material in the brain of white mice
- B. Inoculation of 199 with the addition of bovine serum
- C. Rappaport media Inoculation
- D. Statement of the precipitation reaction
- E. Needle media Inoculation

879. The dentist diagnosed with aphthous stomatitis, herpetic in two month child. What way was a child infected?

- A. The contact
- B. Vertical
- C. The air-dust
- D. Through fecal-oral
- E. At the time of delivery

880. The patient with the ulcer, which is located on the oral mucosa, staining by Romanovsky-Giemsa revealed thin spiral-like organisms pale pink with 12-14 coils and pointed ends. What pathogen is characterized by such symptoms?

- A. Syphilis
- B. Causative agent of leptospirosis
- C. Causative agent of typhoid rotary
- D. Agent of campylobacteriosis
- E. Pathogen Sodoku

881. On the oral mucosa of 20 years old woman the dentist noticed a round ulcer with a thick bottom and smooth edges, which resembles a chancre.

What is the diagnostic method should be used at this stage of the disease, to confirm the etiology of syphilis?

- A. The biological
- B. Bacteriological
- C. Smear
- D. Serological
- E. Allergic

882. In the tested material from a patient with gingival pockets necrotizing stomatitis revealed thin spiral bacteria that are 8-14 curls and Romanovsky-Giemsa stained a pale pink color. Which organisms have been identified in the material?

- A. Fusobacterium reiodonticum
- B. Treponema vinsentii
- C. Actinomices viscosus
- D. Lactobacillus casei
- E. Bacteroides fragilis

883. For the treatment of odontogenic infections dentist appointed antibiotic therapy. What more appropriate antibiotic should be used for the prevention of candidosis of the mouth?

- A. Nystatin
- B. Kanamycin
- C. Levomicetin
- D. Ristomicin
- E. Polymyxin

884. In a study of preschool children a dentist found in the mucosa of the mouth coating and film of gray-white color. At microscopy stained by Gram drug identified microorganisms: Gram-positive, ovoid shape, thread pseudomycelium. Which microorganisms cause mucosal damage?

- A. C.albicans

B. S.aureus

C. B. anthracis

D. Leptotrichia

E. Actinomyces

885. In studying the microflora of the oral cavity in a patient with stomatitis

E.soli found in large quantities.

Which drug is advisable to apply for adjustment status dysbiotic mouth?

A. Bacterial immunomodulators

B. Bacteriophages

C. Antibiotics

D. Sulfonamide

E. Antisera

886. Patient appealed to the dentist complained of vesicular rash around the mouth. Which method should be applied to confirm the diagnosis "herpes"?

A. Microscopic examination of smears

B. Haemagglutinin

C. Seeding on blood agar

D. Seeding to Kitt Tarotsti medium

E. Immunofluorescence reaction

887. In a patient with smear microscopy of necrotic ulcers in the oral cavity revealed spiral organisms, which are stained in blue by Romanowsky-Giemsa. Specify whether the organism is involved in the development of the necrotic process in this patient?

A Spirochete Vincent

B. Treponema pallidum

C. Obermeyer pallidum

D. Leptospira

E. Pallidum

888. A patient with a lesion of oral mucosa was diagnosed - necrotizing stomatitis Vincent. What methods of laboratory diagnosis should be used to confirm the diagnosis?

A. Biology, allergic

B. Smear, allergic

C. Bacteriological, allergic

D. Bacterioscopy, biological

E. Smear, bacteriological

889. The patient appealed to the doctor (the milkmaid), with a rash on the mucosa of the mouth in the form of the AFL. The doctor found a rash on the skin of the hands around the nail plate. What pathogen caused the disease?

A. Cytomegalovirus

B. Coxsackie virus

C. FMDV

D. Herpesvirus

E. Vesicular stomatitis virus

890. The patient was diagnosed with dental offices - necrotizing Vincent's disease. What microorganisms are pathogens of this disease?

A. Fuzobacteries and spirochetes

B. Streptococci and staphylococci

C. Actinomycetes

D. Bacteroides

E. Herpes simplex virus

891. During the microscopic examination of biopsies of the lesion of the mucous membrane of the mouth sticks were found arranged in clusters that resemble a pack of cigars. Ziehl-Neelsen stain in red. What type of pathogen, the most reliably detected in the biopsy?

A. A.bovis

B. M.tuberculosis

C. A.israilii

D. M.leprae

E. M. avium

892. Saliva has enzymes that neutralized the bacteria. Name it.

A. Amylase

B. Phosphatase

C. Lysozyme

D. Carbamoilfosfatsintetase

E. Glucose-6-phosphate dehydrogenase

Correct answers codes

Tests №	Code	№	Code	№	Code	№	Code
1	B	38	B	75	B	112	E
2	C	39	E	76	A	113	E
3	E	40	B	77	E	114	E
4	Д	41	A	78	A	115	Д
5	A	42	A	79	B	116	B
6	Д	43	A	80	B	117	C
7	C	44	A	81	B	118	B
8	Д	45	C	82	B	119	B
9	Д	46	B	83	C	120	A
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