

1. A 13-year-old patient complains of general weakness, dizziness, fatiguability. Mental retardation is also observed. Examination revealed high concentration of valine, isoleucine and leucine in blood and urine. The patients urine has a specific smell. What is the likely cause of such condition?

a. Maple syrup urine disease

b. Tyrosinosis

c. Basedows disease

d. Histidinemia

e. Addisons disease

2. A patient has increased pyruvate concentration in blood. Large amount of it is excreted with urine. What vitamin deficiency is observed?

a. E

b. B6

c. B2

d. B1

e. B3

3. Pellagra may be caused by maize domination and low quantity of animal foodstuffs in the dietary intake. This pathology results from lack of the following amino acid:

a. Phenylalanine

b. Isoleucine

c. Tryptophane

d. Methionine

e. Histidine

4. During the histologic examination of thyroid gland of a man who died of cardiac insufficiency together with hypothyroidism there was found the diffusive infiltration of gland by lymphocytes and plasmocytes, parenchyma atrophy and growth of connective tissue. Formulate a diagnosis:

a. Thyroid gland adenoma

b. Thyrotoxic goiter

c. -

d. Hashimotos thyroiditis

e. Purulent thyroiditis

5. The lung hypertension and cardiac insufficiency of right ventricle with ascites and edemata developed at patient with pneumosclerosis. What is the principal pathogenetic mechanism of edemata development?

a. Increase of hydrostatic blood pressure in veins

b. Decrease of oncotic blood pressure

c. Increase of vascular permeability

d. Decrease of osmotic blood pressure

e. Increase of oncotic pressure of intercellular fluid

6. A patient with pneumosclerosis has pulmonary hypertension and cardiac insufficiency of right ventricle with ascites and edemata. What is the main pathogenetic mechanism of edemata development?

a. Reduction of oncotic blood pressure

b. Rise of oncotic pressure of intracellular fluid

c. Rise of hydrostatic blood pressure in veins

d. Increased permeability of vessel walls

e. -

7. Dystrophic changes of heart are accompanied by dilatation of cardiac cavities, decrease of heart beat force, increased volume of blood that remains in cardiac cavity after systole; veins are overfilled. What state is this presentation typical for?

a. Cardiac tamponade

b. Myogenic dilatation

c. Emergency phase of myocardial hypertrophy

- d. Tonogenic dilatation
- e. Cardiosclerosis stage

8. A 7 year old child had an acute onset of disease. Pediatrician stated that mucous membrane of fauces is hyperemic and covered with a lot of mucus. Mucous membrane of cheeks has whitish stains. Next day the child's skin of face, neck, body was covered with coarsely-papular rash. What disease may be presumed?

- a. Diphtheria
- b. Scarlet fever
- c. Measles**
- d. Meningococemia
- e. Allergic dermatitis

9. Autopsy of a woman with cerebral atherosclerosis revealed in the left cerebral hemisphere a certain focus that is presented by flabby, anhydric, greyish and yellowish tissue with indistinct edges. What pathological process is the case?

- a. Focal encephalitis
- b. Senile encephalopathy
- c. Multifocal tumor growth with cystic degeneration
- d. Multiple foci of fresh and old cerebral hemorrhage
- e. Ischemic stroke**

10. A 10 -year old child lives in the region where fluorine content in water is above the mark. A dentist examined the child and found teeth damage in form of chalky and also pigmentary stains and stripes. What is the most probable diagnosis?

- a. Wedge defects
- b. Median caries
- c. Fluorosis**
- d. Tooth erosion
- e. Acidic necrosis of hard tooth tissues

11. A 53 year old patient consulted a doctor about white patch on the mucous membrane of tongue. This patch sticks out from the mucous membrane, its surface is cracked. Microscopic analysis reveals thickening of multilayer epithelium, parakeratosis and acanthosis. What is the most probable diagnosis?

- a. Leukoplakia**
- b. Epidermoid cancer
- c. Median rhomboid glossitis
- d. Papilloma
- e. Geographic tongue

12. The microscopic analysis of bronch biopsy revealed a tumor that consisted of circumscribed accumulations of atypical cells of multilayer plane epithelium, here and there with typical "pearls". What is the most likely diagnosis?

- a. Scirrhous
- b. Epidermoid cancer with keratinization**
- c. Solid carcinoma
- d. Epidermoid cancer without keratinization
- e. Mucous carcinoma

13. Histologic examination revealed a big number of polymorphonuclear leukocytes in all layers of appendix; hyperemia, stases. What disease are these symptoms typical for?

- a. Gangrenous appendicitis
- b. Simple appendicitis
- c. Chronic appendicitis
- d. Phlegmonous appendicitis**
- e. Superficial appendicitis

14. A female patient suffering from secondary syphilis got foci of skin depigmentation in the upper parts of her back. What pathological process is it?

a. Leukoderma

- b. Leukoplasia
- c. Parakeratosis
- d. Dysplasia
- e. Metaplasia

15. Opening of a patient's abdominal cavity revealed for about 2,0 L of purulent fluid. Peritoneum is dull, greyish, serous tunic of intestines has grayish layers that can be easily removed. It is most likely to be:

a. Fibrinopurulent peritonitis

- b. Serous peritonitis
- c. -
- d. Tuberculous peritonitis
- e. Hemorrhagic peritonitis

16. Microscopic analysis of brain base vessels of a patient who died of ischemic stroke revealed that intima of cerebral vessels is irregular, with moderate quantity of yellow stains and yellowish-whitish patches that narrow lumen. What is the most probable diagnosis?

- a. Diabetes mellitus
- b. Primary hypertension

c. Atherosclerosis

- d. Rheumatism
- e. Nodular periarteritis

17. Autopsy of a 5 year old child revealed that pia mater of brain are extremely plethoric, nebulous, have a look of yellowish-green bonnet. Microscopic analysis: pia mater of brain is very thickened, plethoric, impregnated with purulent exudate containing fibrin. What disease is meant?

- a. Influenza
- b. Measles
- c. Tuberculosis
- d. Anthrax

e. Meningococcosis

18. Histological examination of thyroid gland of a man who died from cardiac insufficiency accompanied by hypothyroidism revealed diffuse infiltration of the gland by lymphocytes and plasmocytes with formation of lymphoid follicles, as well as atrophy of parenchyma and growth of connective tissue. What is the most probable diagnosis?

a. Autoimmune Hashimoto's thyroiditis

- b. Purulent thyroiditis
- c. -
- d. Thyrotoxic goiter
- e. Adenoma of thyroid gland

19. Post-mortem examination of a 5 year old boy who died from acute pulmonary and cardiac insufficiency revealed the following: serohemorrhagic tracheobronchitis with some necrotic areas of mucous membrane, multiple foci of hemorrhagic pneumonia in lungs. What disease is in question?

- a. Diphtheria
- b. Croupous pneumonia
- c. Measles
- d. Scarlet fever

e. Influenza

20. Autopsy of a 70-year-old man who died from cardiac insufficiency revealed deformed and constricted coronary arteries. The artery section shows that the intimal surface is stony hard and fragile. It is also whitish, with nodular appearance. What stage of atherosclerosis is it?

a. Lipoidosis

- b. Ulceration
- c. Liposclerosis
- d. Atheromatosis

**e. Atherocalcinosis**

21. Autopsy of an aged man who had been suffering from acute intestinal upset for the last 2 weeks revealed the following changes in the rectum and sigmoid colon: mucous membrane surface was coated with brown-green film. The intestine wall was thickened, and its cavity was extremely constricted. Microscopical examination revealed variously deep penetrating necrosis of mucous membrane; necrotic masses contained fibrin fibers and bore signs of leukocytic infiltration. What is the most likely diagnosis?

- a. Ulcerative colitis
- b. Catarrhal colitis

**c. Fibrinous colitis**

- d. Follicular colitis
- e. -

22. Examination of coronary arteries revealed atherosclerotic plaques with calcification that close the lumen by 1/3. The muscle contains multiple small whitish layers of connective tissue. What process was revealed in myocardium?

a. Myocardium infarction

**b. Diffuse cardiosclerosis**

- c. Postinfarction cardiosclerosis
- d. Tiger heart
- e. Myocarditis

23. Microscopic analysis of tissue sampling from patients skin reveals granulomas that consist of epithelioid cells surrounded mostly by T-lymphocytes. Among epithelioid cells there are solitary giant multinuclear cells of Pirogov-Langhans type. In the centre of some granulomas there are areas of caseous necrosis. Blood vessels are absent. What disease are the described granulomas typical for?

a. Glanders

**b. Tuberculosis**

- c. Leprosy
- d. Syphilis
- e. Rhinoscleroma

24. Examination of a child who has recently recovered from measles revealed in the soft tissues of cheeks and perineum some inaccurate, edematic, red-and-black, slightly fluctuating areas. What complication is it?

- a. Pressure sore
- b. Trophic ulcer
- c. Dry gangrene
- d. Gas gangrene

**e. Humid gangrene**

25. Autopsy of a woman who died of tumorous dissemination of mucinous cystadenocarcinoma and before that had to stay in bed for a long time revealed big necrotic areas of skin and soft subjacent tissues in sacral region. What form of necrosis is the case?

a. Zenkers necrosis

**b. Pressure sore**

- c. Sequester
- d. Infarction
- e. Caseous necrosis

26. Examination of a patient who had been suffering from rheumatism for a long time revealed stenosis of mitral orifice, death was caused by cardiac and pulmonary insufficiency. Autopsy has shown brown induration of lungs. What type of circulation disturbance provokes such changes in lungs?

- a. Acute right ventricular insufficiency
- b. Portal hypertension
- c. Chronic right ventricular insufficiency
- d. Acute left ventricular insufficiency
- e. Chronic left ventricular insufficiency**

27. During the electronical microscopic analysis of salivary gland the cell fragments were revealed which are surrounded by a membrane and contain condensed particles of nuclear substance and solitary organelles; the inflammatory reaction around these cells is absent. What process is meant?

- a. Karyopcnosis
- b. Karyolysis
- c. Karyorhexis
- d. Coagulation necrosis
- e. Apoptosis**

28. On the 5th day of illness a 12 year old child who was treated in the infectious department on account of influenza felt severe headache, sickness, dizziness, got meningeal signs. The child died 24 hours later from increasing brain edema. Dissection of cranial cavity revealed that pia maters of brain are edematic, plethoric, saturated diffusively with bright red liquid. Convolutions and sulci of brain are flattened. What influenza complication is in question?

- a. Venous hyperemia of brain membranes
- b. Cerebral hemorrhage
- c. Hemorrhagic meningitis**
- d. Suppurative leptomeningitis
- e. Serous meningitis

29. Autopsy of a man who died of typhoid fever revealed ulcers along the ileum. These ulcers have even sides, clean fundus formed by muscle layer or even by serous tunic of an intestine. What stage of disease does the described presentation correspond with?

- a. Stage of ulcer healing
- b. Stage of clean ulcers**
- c. Stage of necrosis
- d. Stage of medullary swelling
- e. Stage of dirty ulcers

30. Morphological examination of carious cavity floor differentiated distinctly three zones: the one of softened dentin, transparent dentin and replacing dentin. What stage of caries are these changes typical for?

- a. Spot stage
- b. Deep caries
- c. Chronic caries
- d. Median caries**
- e. Superficial caries

31. A man had an acute onset of disease, he complained of chill, temperature rise up to 40C, headache, cough, dyspnea. On the fifth day of illness he died. Autopsy revealed:his lungs were enlarged, they had a look of coal-miners lungs. What illness is such postmortem diagnosis typical for?

- a. Adenovirus infection
- b. Respiratory syncytial infection
- c. Multiple bronchiectasis
- d. Influenza**
- e. Croupous pneumonia

32. Mucous membrane of the right palatine tonsil has a painless ulcer with smooth lacquer fundus and accurate edges of cartilaginous consistency. Microscopically: inflammatory infiltrate that consists of lymphocytes, plasmocytes, a small number of neutrophils and epithelioid cells; endovascularitis and perivascularitis. What disease is in question?

- a. Pharyngeal diphtheria

- b. Necrotic (Vincent's) tonsillitis
- c. Actinomycosis
- d. Tuberculosis

**e. Syphilis**

33. A 75 year old male patient consulted a surgeon about a brown nonhealing ulcer of shin. Examination of biopsy material revealed diffuse growth of polymorphic atypical cells with brown pigment in their cytoplasm. Pearl's reaction was negative. There were also a lot of pathological mitoses and foci of tissue necrosis. What is the most probable diagnosis?

- a. Skin cancer

**b. Melanoma**

- c. Intradermal nevus
- d. Local hemosiderosis
- e. Trophic ulcer

34. A 22 year woman has enlarged lymphatic nodes. Histological analysis of a node revealed lymphocytes, histiocytes, reticular cells, small and great Hodgkin's cells, multinuclear Reed-Sternberg cells, solitary foci of caseous necrosis. What disease are these changes typical for?

- a. Acute leukemia
- b. Cancer metastasis
- c. Lymphosarcoma
- d. Chronic leukemia

**e. Lymphogranulomatosis**

35. A 57 year old patient has periodic uterine bleedings. Diagnostic endometrectomy was performed. Biopsy material contains among the blood elements some glandular complexes of different sizes and forms that consist of atypical cells with hyperchromic nuclei and multiple mitoses (including pathological ones). What is the most probable diagnosis?

**a. Adenocarcinoma**

- b. Chorioepithelioma
- c. Endometritis
- d. Glandular hyperplasia of endometrium
- e. Fibromyoma of uterus

36. Autopsy of a man who died from ethylene glycol poisoning revealed that his kidneys are a little bit enlarged, edematous; their capsule can be easily removed. Cortical substance is broad and light-grey. Medullary substance is dark-red. What pathology had this man?

- a. Acute pyelonephritis
- b. Acute tubular-interstitial nephritis
- c. Lipoid nephrosis

**d. Necrotic nephrosis**

- e. Acute glomerulonephritis

37. During the histologic lung analysis of a man who died from cardiac insufficiency the inflammation foci were revealed. Alveoles were full of light-pink fluid, here and there with pinkish fibers that formed a close-meshed reticulum with a small number of lymphocytes. What type of exudate is present in lungs?

- a. Serous
- b. Hemorrhagic

**c. Serofibrinous**

- d. Purulent
- e. Fibrinous

38. A 38 year old patient died during intractable attack of bronchial asthma. Histological examination revealed mucus accumulations in bronchus lumen, a lot of mast cells (mastocytes) in bronchus wall, some of these cells are degranulated, there are also many eosinophils. Name pathogenesis of these changes in bronchi:

- a. Cytotoxic, cytolytic effect of antibodies

- b. Cell-mediated cytolysis
- c. Granulomatosis
- d. Atopy, anaphylaxis**
- e. Immune complex mechanism

39. A 7 year old child was taken to the infectious disease hospital with complaints of acute pain during swallowing, temperature rise up to 39°C, neck edema. Objective signs: tonsils are enlarged, their mucous membrane is plethoric and covered with a big number of whitish-yellowish films that are closely adjacent to the mucous membrane. After removal of these films the deep bleeding defect remains. What type of inflammation is it?

- a. Hemorrhagic
- b. Diphtheritic**
- c. Serous
- d. Purulent
- e. Crupous

40. In course of gastric endoscopy the biopsy material of mucous membrane was taken. Its histological examination revealed the following: mucous membrane is intact, thickened, edematic, hyperemic, with small droplike hemorrhages, coated with thick mucus. Name the form of acute gastritis:

- a. Necrotic
- b. Catarrhal**
- c. Fibrinous
- d. Erosive
- e. Purulent

41. A 4 year old child had Mantoux test. 60 hours after tuberculin introduction a focal skin hardening and redness 15 mm in diameter appeared. It was regarded as positive test. What type of hypersensitivity reaction is this test based upon?

- a. Complement-mediated cytotoxic hypersensitivity
- b. Immune complex-mediated hypersensitivity
- c. Delayed-type hypersensitivity**
- d. Immediate hypersensitivity
- e. -

42. Autopsy of an 8 year old boy who was ill with pharyngeal and tonsillar diphtheria and died one week after illness begin revealed myocardial changes in form of small-focal myocardiocyte necrosis, stroma edema with slight lymphocytic infiltration. What type of myocarditis is it:

- a. Alternative**
- b. Granulomatous
- c. Focal-intermediate, exudative
- d. Interstitial
- e. Septic

43. Histologic analysis of uterus mucous membrane revealed twisting glands, serrated and spined, they were extended by stroma growth with proliferation of its cells. Formulate a diagnosis:

- a. Leiomyoma
- b. Acute endometritis
- c. Glandular hyperplasia of endometrium**
- d. Cystic mole
- e. Placental polyp

44. Medical examination of the first-year pupils included Mantoux test. 15 pupils out of 35 had negative reaction. What actions should be taken against children with negative reaction?

- a. BCG vaccination**
- b. Rabies vaccination
- c. Examination of blood serum
- d. Repeat Mantoux test

e. Antitoxin vaccination

45. Vaccination is done by means of a toxin that has been neutralized by a formaldehyde (0,4%) at a temperature 37-40C for four weeks. Ramond was the first to apply this preparation for diphtheria prophylaxis. What preparation is it?

a. Inactivated vaccine

**b. Anatoxin**

c. Antitoxic serum

d. Immunoglobulin

e. Adjuvant

46. Examination of a 16 year old boy revealed enlarged submandibular and cervical lymph nodes. The boy was subjected to biopsy. Microscopic examination of lymph nodes revealed: typical structure is obliterated, cell population is heterogenous, there are big cells with multilobe nuclei, multiple big mononuclear cells, eosinophilic and neutrophilic leukocytes, lymphocytes, besides that, there are necrotic areas and foci of sclerosis. What is the most probable diagnosis?

a. Non-Hodgkins lymphoma

**b. Lymphogranulomatosis**

c. Granulomatous lymphadenitis

d. Lymph node hyperplasia

e. Suppurative lymphadenitis

47. A hospital admitted a 9 y.o. boy with mental and physical retardation. Biochemical blood analysis revealed high content of phenylalanine. Such condition may be caused by blocking of the following enzyme:

**a. Phenylalanine-4-monooxygenase**

b. Glutamine transaminase

c. Glutamate decarboxylase

d. Aspartate aminotransferase

e. Oxidase of homogentisic acid

48. An electronic microphotography represents a cell without nucleoli and nuclear membrane. Chromosomes are loosely scattered, centrioles migrate to the poles. What phase of cell cycle is it?

a. Metaphase

b. Anaphase

**c. Prophase**

d. Telophase

e. Interphase

49. An 18 y.o. boy applied to a geneticist. The boy has asthenic constitution: narrow shoulders, broad pelvis, nearly hairless face. Evident mental deficiency. The provisional diagnosis was Klinefelters syndrome. What method of clinical genetics will enable the doctor to confirm this diagnosis?

a. Population-and-statistical

**b. Cytogenetic**

c. Twin study

d. Genealogical

e. Dermatoglyphics

50. Abnormal chromosome disjunction during meiosis resulted in formation of: an ovum with 22 autosomes and polar body with 24 chromosomes. If such an ovum would be fertilized with a normal spermatozoon (22+X) the child might have the following syndrome:

a. Klinefelters syndrome

b. Downs syndrome

c. Edwards syndrome

**d. Turners syndrome**

e. Trisomy X

51. According to the law of constant chromosome number, each species of most animals has a



definite and constant number of chromosomes. The mechanism providing this constancy in sexual reproduction of the organisms is called:

- a. Amitosis
- b. Shizogony
- c. Meiosis**
- d. Regeneration
- e. Gemmation

52. A patient is ill with dermatitis, diarrhea, dementia. During history taking it was revealed that the main foodstuff of the patient was maize. These disturbances are caused by deficiency of the following vitamin:

- a. PP**
- b. B2
- c. B8
- d. B9
- e. B1

53. A 20 y.o. patient complains of general weakness, dizziness, rapid fatigability. Examination results: Hb- 80 g/l; microscopical analysis results: erythrocytes are deformed. These symptoms might be caused by:

- a. Sickle-cell anemia**
- b. Acute intermittent porphyria
- c. Addisons disease
- d. Obturative jaundice
- e. Parenchymatous jaundice

54. A pregnant woman lost for about 800 ml of blood during labour. There is also tachycardia, arterial pressure is 100/70 mm Hg, tachypnea up to 28/min. What hypoxia type is primary in such clinical situation?

- a. Tissue
- b. Respiratory
- c. Cardiovascular
- d. Mixed
- e. Blood**

55. Enzymatic jaundices are characterized by disbalanced activity of UDP-glucuronyl transferase. What compound is accumulated in the blood serum in case of these pathologies?

- a. Biliverdin
- b. Direct bilirubin
- c. Indirect bilirubin**
- d. Mesobilirubin
- e. Verdoglobin

56. A patient with apparent icteritiousness of skin, sclera and mucous membranes was admitted to the hospital. The patients urine was of brown ale colour, analysis revealed presence of direct bilirubin. Feces had low concentration of bile pigments. What type of jaundice is it?

- a. Obturative**
- b. Haemolytic
- c. Absorbtion
- d. Conjugated
- e. Parenchymatous

57. Microscopic examination during autopsy of a 70 y.o. man who had been ill with atherosclerosis for a long time and died from cardiovascular insufficiency revealed in the abdominal area of aorta some dense oval fibrous plaques with lime deposition in form of dense brittle plates. What stage of atherosclerosis morphogenesis is it?

- a. Atheromatosis
- b. Liposclerosis**

**c. Atherocalcinosis**

- d. Ulceration
- e. Lipoidosis

58. During examination a dentist revealed cervical caries of right inferior incisors as well as enlargement of a certain group of lymph nodes. What lymph nodes are enlarged?

- a. Facial

**b. Submental**

- c. Superficial cervical
- d. Occipital
- e. Deep cervical

59. Various cells of the oral mucous membrane and antimicrobial substances synthesized by these cells play an important part in the local immunity of the oral cavity. Specify the key factors for the local immunity:

**a. Secretory IgA**

- b. IgG
- c. Eosinophils
- d. Macrophages
- e. B-lymphocytes

60. A 35-year-old patient with chronic periodontitis underwent excision of a cyst 3 cm in diameter found at a root of the 15th tooth. Histological examination revealed that it had thin wall formed by mature connective tissue infiltrated by lymphocytes and plasmatic cells. Its internal surface was lined with multilayer pavement epithelium with no signs of keratinization; the cavity contained serous exudate. What is the most likely diagnosis?

- a. Follicular cyst
- b. Cherubism
- c. Follicular ameloblastoma

**d. Radicular cyst**

- e. Primordial cyst

61. What preventive medications should be injected to a patient with open maxillofacial trauma provided that he has never got prophylactic vaccination before?

**a. Antitetanus immunoglobulin and anatoxin**

- b. Antitetanus serum and antibiotics
- c. Tetanus anatoxin and antibiotics
- d. Diphtheria, tetanus toxoids and pertussis vaccine and antibiotics
- e. Anticonvulsive drugs and anatoxin

62. A 13-year-old patient complains of general weakness, dizziness, fatiguability. Mental retardation is also observed. Examination revealed high concentration of valine, isoleucine and leucine in blood and urine. The patients urine has a specific smell. What is the likely cause of such condition?

- a. Tyrosinosis
- b. Addisons disease

**c. Maple syrup urine disease**

- d. Histidinemia
- e. Basedows disease

63. A patient has increased pyruvate concentration in blood. Large amount of it is excreted with urine. What vitamin deficiency is observed?

- a. B2

**b. B1**

- c. B3
- d. E
- e. B6

64. Pellagra may be caused by maize domination and low quantity of animal foodstuffs in the dietary

intake. This pathology results from lack of the following amino acid:

- a. Methionine
- b. Histidine
- c. Isoleucine
- d. Phenylalanine

**e. Tryptophane**

65. During the histologic examination of thyroid gland of a man who died of cardiac insufficiency together with hypothyroidism there was found the diffusive infiltration of gland by lymphocytes and plasmocytes, parenchyma atrophy and growth of connective tissue. Formulate a diagnosis:

- a. Thyrotoxic goiter
- b. -
- c. Thyroid gland adenoma
- d. Purulent thyroiditis

**e. Hashimotos thyroiditis**

66. The lung hypertension and cardiac insufficiency of right ventricle with ascites and edemata developed at patient with pneumosclerosis. What is the principal pathogenetic mechanism of edemata development?

- a. Decrease of osmotic blood pressure
- b. Increase of vascular permeability
- c. Increase of oncotic pressure of intercellular fluid
- d. Decrease of oncotic blood pressure

**e. Increase of hydrostatic blood pressure in veins**

67. A patient with pneumosclerosis has pulmonary hypertension and cardiac insufficiency of right ventricle with ascites and edema. What is the main pathogenetic mechanism of edema development?

- a. Rise of oncotic pressure of intracellular fluid
- b. Increased permeability of vessel walls
- c. -

**d. Rise of hydrostatic blood pressure in veins**

e. Reduction of oncotic blood pressure

68. Dystrophic changes of heart are accompanied by dilatation of cardiac cavities, decrease of heart beat force, increased volume of blood that remains in cardiac cavity after systole; veins are overfilled. What state is this presentation typical for?

**a. Myogenic dilatation**

- b. Emergency phase of myocardial hypertrophy
- c. Cardiac tamponade
- d. Cardiosclerosis stage
- e. Tonogenic dilatation

69. A 7 year old child had an acute onset of disease. Pediatrician stated that mucous membrane of fauces is hyperemic and covered with a lot of mucus. Mucous membrane of cheeks has whitish stains. Next day the child's skin of face, neck, body was covered with coarsely-papular rash. What disease may be presumed?

**a. Measles**

- b. Diphtheria
- c. Allergic dermatitis
- d. Meningococemia
- e. Scarlet fever

70. Autopsy of a woman with cerebral atherosclerosis revealed in the left cerebral hemisphere a certain focus that is presented by flabby, anhistic, greyish and yellowish tissue with indistinct edges. What pathological process is the case?

- a. Multiple foci of fresh and old cerebral hemorrhage
- b. Multifocal tumor growth with cystic degeneration

**c. Ischemic stroke**

- d. Focal encephalitis
- e. Senile encephalopathy

71. Autopsy of a 52-year-old woman with a long history of chronic glomerulonephritis revealed significantly reduced in size, dense kidneys with a surface of fine granularity; fibrinous inflammation of serous and mucous membranes; dystrophic changes in parenchymatous organs; cerebral edema. The described changes of serous membranes and internal organs are caused by the following complication:

- a. Thrombocytopenia
- b. Uraemia**
- c. Sepsis
- d. Anaemia
- e. DIC syndrome

72. A 10 year old child lives in the region where fluorine content in water is above the mark. A dentist examined the child and found teeth damage in form of chalky and also pigmentary stains and stripes. What is the most probable diagnosis?

- a. Acidic necrosis of hard tooth tissues
- b. Fluorosis**
- c. Wedge defects
- d. Median caries
- e. Tooth erosion

73. Histological study of the bronchial wall and adjacent lung segments revealed sheets and strands of squamous epithelium. The cells have moderately expressed symptoms of atypia: polymorphism, nuclear hyperchromatism, mitoses. In the center of the complex there are concentric pink formations. What is the most likely diagnosis?

- a. Keratinizing squamous cell carcinoma**
- b. Adenocarcinoma
- c. Undifferentiated carcinoma
- d. Scirrhous
- e. Non-keratinizing squamous cell carcinoma

74. Histologically, the internal wall of a cyst localized on the upper jaw is lined with stratified squamous epithelium with underlying granulation tissue infiltrated by lymphocytes. The external layer is represented by loose fibrous connective tissue surrounded by cicatricial fibrous tissue. What diagnosis can be made?

- a. Epithelial granuloma
- b. Simple granuloma
- c. Cystic granuloma**
- d. Keratocyst
- e. Ameloblastoma

75. The microscopic analysis of bronch biopsy revealed a tumor that consisted of circumscribed accumulations of atypical cells of multilayer plane epithelium, here and there with typical pearls. What is the most likely diagnosis?

- a. Epidermoid cancer without keratinization
- b. Mucous carcinoma
- c. Scirrhous
- d. Epidermoid cancer with keratinization**
- e. Solid carcinoma

76. Histologic examination revealed a big number of polymorphonuclear leukocytes in all layers of appendix; hyperemia, stases. What disease are these symptoms typical for?

- a. Simple appendicitis
- b. Chronic appendicitis
- c. Gangrenous appendicitis
- d. Superficial appendicitis

**e. Phlegmonous appendicitis**

77. A female patient suffering from secondary syphilis got foci of skin depigmentation in the upper parts of her back. What pathological process is it?

- a. Metaplasia
- b. Dysplasia
- c. Parakeratosis

**d. Leukoderma**

- e. Leukoplasia

78. Opening of a patient's abdominal cavity revealed for about 2,0 L of purulent fluid. Peritoneum is dull, greyish, serous tunic of intestines has grayish layers that can be easily removed. It is most likely to be:

- a. Hemorrhagic peritonitis
- b. Tuberculous peritonitis
- c. -

**d. Fibrinopurulent peritonitis**

- e. Serous peritonitis

79. A 77-year-old patient with atherosclerosis got pain in his right foot. The foot is enlarged, the skin is black and macerated, the demarcation zone is not defined clearly. What pathological process arose in the foot?

- a. Noma
- b. Dry gangrene

**c. Wet gangrene**

- d. Sequestrum
- e. Coagulation necrosis

80. Microscopic analysis of brain base vessels of a patient who died of ischemic stroke revealed that intima of cerebral vessels is irregular, with moderate quantity of yellow stains and yellowish-whitish patches that narrow lumen. What is the most probable diagnosis?

- a. Nodular periarteritis

**b. Atherosclerosis**

- c. Diabetes mellitus
- d. Primary hypertension
- e. Rheumatism

81. A 42-year-old man died with symptoms of severe intoxication and respiratory failure. A slide of lung tissue was heterogeneous, with multiple microfocal hemorrhages and foci of emphysema. Histological examination of lungs revealed hemorrhagic abscessing bronchopneumonia; eosinophilic and basophilic granules in the cytoplasm of epithelial cells of bronchi. What is the most likely diagnosis?

- a. Staphylococcal bronchopneumonia

**b. Influenza**

- c. Adenovirus infection
- d. Parainfluenza
- e. Respiratory syncytial virus infection

82. Autopsy of a 5 year old child revealed that pia mater of brain is extremely plethoric, nebulous, have a look of yellowish-green "bonnet". Microscopic analysis: pia mater of brain is very thickened, plethoric, impregnated with purulent exudate containing fibrin. What disease is meant?

- a. Tuberculosis
- b. Influenza
- c. Measles

**d. Meningococcosis**

- e. Anthrax

83. Post-mortem examination of a 5 year old boy who died from acute pulmonary and cardiac

insufficiency revealed the following: serohemorrhagic tracheobronchitis with some necrotic areas of mucous membrane, multiple foci of hemorrhagic pneumonia in lungs. What disease is in question?

- a. Scarlet fever
- b. Measles
- c. Influenza**
- d. Diphtheria
- e. Croupous pneumonia

84. Autopsy of a man who died from intractable hemorrhage revealed necrosis of grouped and solitary follicles, dead tissues imbued with bile and blood in the ileum; sequestration and rejection of necrotic masses with defect formation in the lower segment of the intestine. Which of the following diagnoses is most likely?

- a. Abdominal typhoid salmonellosis
- b. Crohn's disease
- c. Typhoid fever, clean ulcer stage
- d. Typhoid fever, necrosis stage
- e. Typhoid fever, ulcerative stage**

85. Autopsy of an aged man who had been suffering from acute intestinal upset for the last 2 weeks revealed the following changes in the rectum and sigmoid colon: mucous membrane surface was covered with brown-green films. The intestine wall was thickened, and its cavity was extremely constricted. Microscopical examination revealed variously deep penetrating necrosis of mucous membrane; necrotic masses contained fibrin fibers and bore signs of leukocytic infiltration. What is the most likely diagnosis?

- a. Catarrhal colitis
- b. Follicular colitis
- c. -
- d. Fibrinous colitis**
- e. Ulcerative colitis

86. Examination of coronary arteries revealed atherosclerotic plaques with calcification that close the lumen by 1/3. The muscle contains multiple small whitish layers of connective tissue. What process was revealed in myocardium?

- a. Myocarditis
- b. Myocardium infarction
- c. Tiger heart
- d. Postinfarction cardiosclerosis
- e. Diffuse cardiosclerosis**

87. Microscopic analysis of tissue sampling from patient's skin reveals granulomas that consist of epithelioid cells surrounded mostly by T-lymphocytes. Among epithelioid cells there are solitary giant multinuclear cells of Pirogov-Langhans type. In the centre of some granulomas there are areas of caseous necrosis. Blood vessels are absent. What disease are the described granulomas typical for?

- a. Tuberculosis**
- b. Leprosy
- c. Glanders
- d. Rhinoscleroma
- e. Syphilis

88. Examination of a child who has recently recovered from measles revealed in the soft tissues of cheeks and perineum some inaccurate, edematous, red-and-black, slightly fluctuating areas. What complication is it?

- a. Trophic ulcer
- b. Moist gangrene**
- c. Gas gangrene
- d. Dry gangrene

e. Pressure sore

89. Autopsy of a woman who died of tumorous dissemination of mucinous cystadenocarcinoma and before that had to stay in bed for a long time revealed big necrotic areas of skin and soft subjacent tissues in sacral region. What form of necrosis is the case?

- a. Caseous necrosis
- b. Zenkers necrosis
- c. Infarction
- d. Sequester

e. Pressure sore

90. Examination of a patient who had been suffering from rheumatism for a long time revealed stenosis of mitral orifice, death was caused by cardiac and pulmonary insufficiency. Autopsy has shown brown induration of lungs. What type of circulation disturbance provokes such changes in lungs?

a. Portal hypertension

b. Chronic left ventricular insufficiency

- c. Acute left ventricular insufficiency
- d. Chronic right ventricular insufficiency
- e. Acute right ventricular insufficiency

91. During the electronical microscopic analysis of salivary gland the cell fragments were revealed which are surrounded by a membrane and contain condensed particles of nuclear substance and solitary organelles; the inflammatory reaction around these cells is absent. What process is meant?

- a. Karyorhexis
- b. Karyopcnosis
- c. Karyolysis

d. Apoptosis

e. Coagulation necrosis

92. On the 5th day of illness a 12 year old child who was treated in the infectious department on account of influenza felt severe headache, sickness, dizziness, got meningeal signs. The child died 24 hours later from increasing brain edema. Dissection of cranial cavity revealed that pia maters of brain are edematic, plethoric, saturated diffusively with bright red liquid. Convolutions and sulci of brain are flattened. What influenza complication is in question?

a. Serous meningitis

b. Hemorrhagic meningitis

- c. Venous hyperemia of brain membranes
- d. Cerebral hemorrhage
- e. Suppurative leptomeningitis

93. Autopsy of a man who died of typhoid fever revealed ulcers along the ileum. These ulcers have even sides, clean fundus formed by muscle layer or even by serous tunic of an intestine. What stage of disease does the described presentation correspond with?

- a. Stage of necrosis
- b. Stage of medullary swelling

c. Stage of "clean" ulcers

- d. Stage of "dirty" ulcers
- e. Stage of ulcer healing

94. Morphological examination of carious cavity floor differentiated distinctly three zones: the one of softened dentin, transparent dentin and replacing dentin. What stage of caries are these changes typical for?

- a. Superficial caries
- b. Spot stage

c. Median caries

- d. Deep caries
- e. Chronic caries

95. A man had an acute onset of disease, he complained of chill, temperature rise up to 40°C, headache, cough, dyspnea. On the fifth day of illness he died. Autopsy revealed: his lungs were enlarged, they had a look of "coal-miners lungs". What illness is such postmortem diagnosis typical for?

- a. Influenza
- b. Croupous pneumonia
- c. Multiple bronchiectasis
- d. Respiratory syncytial infection
- e. Adenovirus infection

96. Mucous membrane of the right palatine tonsil has a painless ulcer with smooth lacquer fundus and accurate edges of cartilaginous consistency. Microscopically: inflammatory infiltrate that consists of lymphocytes, plasmocytes, a small number of neutrophils and epithelioid cells; endovasculitis and perivasculitis. What disease is in question?

- a. Necrotic (Vincent's) tonsillitis
- b. Syphilis
- c. Tuberculosis
- d. Actinomycosis
- e. Pharyngeal diphtheria

97. A 75 year old male patient consulted a surgeon about a brown nonhealing ulcer of shin. Examination of biopsy material revealed diffuse growth of polymorphic atypical cells with brown pigment in their cytoplasm. Pearls reaction was negative. There were also a lot of pathological mitoses and foci of tissue necrosis. What is the most probable diagnosis?

- a. Trophic ulcer
- b. Skin cancer
- c. Local hemosiderosis
- d. Intradermal nevus

e. Melanoma

98. A 22 year woman has enlarged lymphatic ganglions. Histological analysis of a ganglion revealed lymphocytes, histiocytes, reticular cells, small and great Hodgkins cells, multinuclear Reed-Sternberg cells, solitary foci of caseous necrosis. What disease are these changes typical for?

- a. Cancer metastasis
- b. Lymphogranulomatosis
- c. Chronic leukemia
- d. Lymphosarcoma
- e. Acute leukemia

99. A 57 year old patient has periodic uterine bleedings. Diagnostic endometrectomy was performed. Biopsy material contains among the blood elements some glandular complexes of different sizes and forms that consist of atypical cells with hyperchromic nuclei and multiple mitoses (including pathological ones). What is the most probable diagnosis?

- a. Endometritis
- b. Adenocarcinoma
- c. Chorioepithelioma
- d. Fibromyoma of uterus
- e. Glandular hyperplasia of endometrium

100. During the histologic lung analysis of a man who died from cardiac insufficiency the inflammation foci were revealed. Alveoles were full of light-pink fluid, here and there with pinkish fibers that formed a close-meshed reticulum with a small number of lymphocytes. What type of exudate is present in lungs?

- a. Fibrinous
- b. Serofibrinous
- c. Serous
- d. Hemorrhagic



e. Purulent

101. A 38 year old patient died during intractable attack of bronchial asthma. Histological examination revealed mucus accumulations in bronchus lumen, a lot of mast cells (labrocytes) in bronchial wall, some of these cells are degranulated, there are also many eosinophils. Name pathogenesis of these changes in bronchi:

- a. Cell-mediated cytotoxicity
- b. Granulematosis
- c. Cytotoxic, cytolytic effect of antibodies
- d. Immune complex mechanism

**e. Atopy, anaphylaxis**

102. Urinary syndrome (hematuria, proteinuria, leukocyturia) developed in 23-year-old patient recovered from angina. Study of the puncture biopsy of a kidney revealed manifestations of intracapillary proliferative glomerulonephritis, and electron microscopy revealed large subepithelial deposits. What is the pathogenesis of this disease?

**a. Immunocomplex mechanism**

- b. Cytotoxic, cytolytic action of antibodies
- c. Granulomatosis
- d. Cell-mediated cytotoxicity
- e. Atopy, anaphylaxis with production of IgE and their fixation on the mast cells

103. 48 hours after tuberculin test (Mantoux test) a child had a papule up to 10 mm in diameter on the spot of tuberculin introduction. What hypersensitivity mechanism underlies the mentioned changes?

**a. Cellular cytotoxicity**

- b. Antibody-dependent cytotoxicity
- c. Granulomatosis
- d. Immunocomplex cytotoxicity
- e. Anaphylaxis

104. A 7 year old child was taken to the infectious disease hospital with complaints of acute pain during swallowing, temperature rise up to 39°C, neck edema. Objective signs: tonsils are enlarged, their mucous membrane is plethoric and covered with a big number of whitish-yellowish films that are closely adjacent to the mucous membrane. After removal of these films the deep bleeding defect remains. What type of inflammation is it?

- a. Serous
- b. Purulent

**c. Diphtheritic**

- d. Crupous
- e. Hemorrhagic

105. In course of gastric endoscopy the biopsy material of mucous membrane was taken. Its histological examination revealed the following: mucous membrane is intact, thickened, edematic, hyperemic, with small droplike hemorrhages, coated with thick mucus. Name the form of acute gastritis:

- a. Fibrinous
- b. Erosive

**c. Catarrhal**

- d. Purulent
- e. Necrotic

106. A 4 year old child had Mantoux test. 60 hours after tuberculin introduction a focal skin hardening and redness 15 mm in diameter appeared. It was regarded as positive test. What type of hypersensitivity reaction is this test based upon?

- a. Immediate hypersensitivity
- b. -
- c. Immune complex-mediated hypersensitivity

d. Complement-mediated cytotoxic hypersensitivity

**e. Delayed-type hypersensitivity**

107. Autopsy of an 8 year old boy who was ill with pharyngeal and tonsillar diphtheria and died one week after illness begin revealed myocardial changes in form of small-focal myocardiocyte necroses, stroma edema with slight lymphocytic infiltration. What type of myocarditis is it:

a. Septic

b. Interstitial

c. Focal-interstitial, exudative

**d. Alterative**

e. Granulomatous

108. Histologic analysis of uterus mucous membrane revealed twisting glands, serrated and spinned, they were extended by stroma growth with proliferation of its cells. Formulate a diagnosis:

a. Placental polyp

**b. Glandular hyperplasia of endometrium**

c. Leiomyoma

d. Acute endometritis

e. Cystic mole

109. Vaccination is done by means of a toxin that has been neutralized by a formaldehyde (0,4%) at a temperature 37-40°C for four weeks. Ramond was the first to apply this preparation for diphtheria prophylaxis. What preparation is it?

**a. Anatoxin**

b. Antitoxic serum

c. Inactivated vaccine

d. Adjuvant

e. Immunoglobulin

110. Microscopical examination of an enlarged cervical lymph node revealed blurring of its structure, absence of lymphoid follicles; all the microscopic fields showed cells with roundish nuclei and thin limbus of basophil cytoplasm. It is known from the clinical data that other groups of lymph nodes are also enlarged as well as spleen and liver. What disease might be suspected?

a. Lymphogranulomatosis

b. Myeloid leukosis

c. Multiple myeloma

**d. Lymphoid leukosis**

e. Lymphosarcoma

111. A hospital admitted a 9 y.o. boy with mental and physical retardation. Biochemical blood analysis revealed high content of phenylalanine. Such condition may be caused by blocking of the following enzyme:

a. Aspartate aminotransferase

b. Glutamate decarboxylase

c. Oxidase of homogentisic acid

d. Glutamine transaminase

**e. Phenylalanine-4-monooxygenase**

112. A worker of a cattle farm fell acutely ill and then died from the progressing intoxication. Autopsy revealed enlarged, hyposthenic spleen of dark-cherry colour when dissected; excessive pulp scraping. At the base and fornix of brain pia maters are edematous, soaked with blood, dark-red ("scarlet hat"). Microscopic examination revealed serous haemorrhagic inflammation of brain tissues and tunics along with destruction of small vessel walls. What is the most likely diagnosis?

a. Cholera

**b. Anthrax**

c. Brucellosis

d. Tularemia

e. Plaque

113. An electronic microphotography represents a cell without nucleoli and nuclear membrane. Chromosomes are loosely scattered, centrioles migrate to the poles. What phase of cell cycle is it?

- a. Telophase
- b. Interphase
- c. Anaphase
- d. Metaphase

**e. Prophase**

114. An 18 y.o. boy applied to a geneticist. The boy has asthenic constitution: narrow shoulders, broad pelvis, nearly hairless face. Evident mental deficiency. The provisional diagnosis was Klinefelters syndrome. What method of clinical genetics will enable the doctor to confirm this diagnosis?

- a. Dermatoglyphics
- b. Population-and-statistical
- c. Genealogical
- d. Twin study

**e. Cytogenetic**

115. Abnormal chromosome disjunction during meiosis resulted in formation of: an ovum with 22 autosomes and polar body with 24 chromosomes. If such an ovum would be fertilized with a normal spermatozoon (22+X) the child might have the following syndrome:

- a. Downs syndrome
- b. Edwards syndrome
- c. Klinefelters syndrome
- d. Trisomy X

**e. Turners syndrome**

116. A patient with android-type obesity had been suffering from arterial hypertension, hyperglycemia, glycosuria for a long time and died from the cerebral haemorrhage. Pathologic examination revealed pituitary basophil adenoma, adrenal cortex hyperplasia. What is the most likely diagnosis?

- a. Pituitary nanism
- b. Adiposogenital dystrophy
- c. Diabetes mellitus
- d. Acromegalia

**e. Itsenko-Cushings syndrome**

117. According to the law of constant chromosome number, each species of most animals has a definite and constant number of chromosomes. The mechanism providing this constancy in sexual reproduction of the organisms is called:

- a. Regeneration
- b. Gemmation
- c. Shizogony
- d. Amitosis

**e. Meiosis**

118. Autopsy of a man with a malignant stomach tumour who had died from cancer intoxication revealed in the posteroinferior lung fields some dense, grayish-red irregular foci protruding above the section surface. Microscopic examination revealed exudate containing a large amount of neutrophils in the lumen and walls of small bronchi and alveoles. Such pulmonary alterations indicate the following disease:

- a. Croupous pneumonia
- b. Acute bronchitis
- c. Acute purulent bronchopneumonia**
- d. Intermittent pneumonia
- e. Acute serous bronchopneumonia

119. A patient is ill with dermatitis, diarrhea, dementia. During history taking it was revealed that the

main foodstuff of the patient was maize. These disturbances are caused by deficiency of the following vitamin:

- a. B2
- b. B1
- c. PP**
- d. B9
- e. B8

120. Autopsy of a 1,5-year-old child revealed haemorrhagic skin rash, moderate hyperaemia and edema of nasopharyngeal mucous membrane, small haemorrhages in the mucous membranes and internal organs; dramatic dystrophic alterations in liver and myocardium; acute necrotic nephrosis; massive haemorrhages in the adrenal glands. What disease are these alterations the most typical for?

- a. Measles
- b. Epidemic typhus
- c. Scarlet fever
- d. Diphtheria

**e. Meningococcal infection**

121. A 20 y.o. patient complains of general weakness, dizziness, rapid fatigability. Examination results: Hb- 80 g/l; microscopical analysis results: erythrocytes are deformed. These symptoms might be caused by:

- a. Obturative jaundice
- b. Addisons disease
- c. Parenchymatous jaundice
- d. Acute intermittent porphyria

**e. Sickle-cell anemia**

122. Autopsy of a 50-year-old man revealed the following changes: his right lung was moderately compact in all parts, the dissected tissue was airless, fine-grained, dryish. Visceral pleura had greyish-brown layers of fibrin. What is the most likely diagnosis?

- a. Bronchopneumonia
- b. Tuberculosis
- c. Croupous pneumonia**
- d. Interstitial pneumonia
- e. Pneumofibrosis

123. A pregnant woman lost for about 800 ml of blood during labour. There is also tachycardia, arterial pressure is 100/70 mm Hg, tachypnea up to 28/min. What hypoxia type is primary in such clinical situation?

- a. Blood**
- b. Mixed
- c. Respiratory
- d. Tissue
- e. Cardiovascular

124. Enzymatic jaundices are characterized by disbalanced activity of UDP-glucuronyl transferase. What compound is accumulated in the blood serum in case of these pathologies?

- a. Indirect bilirubin**
- b. Biliverdin
- c. Verdoglobin
- d. Mesobilirubin
- e. Direct bilirubin

125. Autopsy of a man, who had been suffering from the multiple bronchiectasis for 5 years and died from chronic renal insufficiency, revealed that kidneys were dense and enlarged, with thickened cortical layer of white colour with greasy lustre. What renal disease might be suspected?

- a. Necrotic nephrosis
- b. -

- c. Glomerulonephritis
- d. Chronic pyelonephritis

**e. Secondary amyloidosis**

126. A patient with apparent icteritiousness of skin, sclera and mucous membranes was admitted to the hospital. The patient's urine had brown colour, analysis revealed presence of direct bilirubin. Feces had low concentration of bile pigments. What type of jaundice is it?

- a. Absorption
- b. Obstructive**
- c. Haemolytic
- d. Parenchymatous
- e. Conjugated

127. Microscopic examination during autopsy of a 70 y.o. man who had been ill with atherosclerosis for a long time and died from cardiovascular insufficiency revealed in the abdominal area of aorta some dense oval fibrous plaques with lime deposition in form of dense brittle plates. What stage of atherosclerosis morphogenesis is it?

- a. Ulceration
- b. Lipoidosis
- c. Liposclerosis
- d. Atheromatosis
- e. Atherocalcinosis**

128. 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 rectum. Bacteriological analysis revealed Shigella. What was the main disease?

- a. Yersiniosis
- b. Dysentery**
- c. Salmonellosis
- d. Typhoid fever
- e. Nonspecific ulcerous colitis

129. Microscopy of colonic biopsy material revealed a tumour made up of prismatic epithelium and forming atypical glandular structures of various shapes and sizes. The basal membrane of glands was destroyed. Tumour cells were polymorphic, with hyperchromatic nuclei and a large number of pathological mitoses. What is the most likely diagnosis?

- a. Mucosal carcinoma
- b. Undifferentiated carcinoma
- c. Basal cell carcinoma
- d. Solid carcinoma
- e. Adenocarcinoma**

130. Various cells of the oral mucous membrane and antimicrobial substances synthesized by these cells play an important part in the local immunity of the oral cavity. Specify the key factors for the local immunity:

- a. Macrophages
- b. Eosinophils
- c. B-lymphocytes
- d. IgG
- e. Secretory IgA**

131. Gynecological examination of the uterine cervix in a 30-year-old woman revealed some bright-red lustrous spots that easily bleed when touched. Biopsy showed that a part of the uterine cervix was covered with cylindrical epithelium with papillary outgrowths; in the depth of tissue the growth of glands was present. What pathology of the uterine cervix was revealed?

- a. Glandular hyperplasia

- b. Leukoplakia
- c. True erosion
- d. Endocervicitis

**e. Pseudoerosion**

132. A stillborn child was found to have thickened skin resembling of the tortoise shell, underdeveloped auricles. Histological examination of skin revealed hyperkeratosis, atrophy of the granular epidermis layer; inflammatory changes were not present. What is the most likely diagnosis?

**a. Ichthyosis**

- b. Xerodermia
- c. Dermatomyositis
- d. Erythroplakia
- e. Leukoplakia

133. A pathology-histology laboratory received a vermiform appendix up to 2,0 cm thick. Its serous membrane was pale, thick and covered with yellowish-green films. The wall was flaccid, of grayish-red colour. The appendix lumen was dilated and filled with yellowish-green substance. Histological examination revealed that the appendix wall was infiltrated with neutrophils. Specify the appendix disease:

- a. Acute simple appendicitis
- b. Chronic appendicitis
- c. Acute gangrenous appendicitis
- d. Acute superficial appendicitis

**e. Acute phlegmonous appendicitis**

134. A 35-year-old patient with chronic periodontitis underwent excision of a cyst 3 cm in diameter found at a root of the 15th tooth. Histological examination revealed that it had thin wall formed by mature connective tissue infiltrated by lymphocytes and plasmatic cells. Its internal surface was lined with multilayer pavement epithelium with no signs of keratinization; the cavity contained serous exudate. What is the most likely diagnosis?

a. Follicular ameloblastoma

**b. Radicular cyst**

- c. Primordial cyst
- d. Follicular cyst
- e. Cherubism

135. Vestibular surface of the left lower incisor has a pink fungoid formation up to 2 cm in size which is fixed to the supra-alveolar tissue by a wide pedicle. Histological examination revealed branched capillary vessels with multiple hemorrhages and foci of hemosiderosis. What is the most likely diagnosis?

- a. Gingival fibromatosis
- b. Cavernous hemangioma
- c. Fibrous epulis
- d. Giant cell epulis

**e. Angiomatous epulis**

136. The surgically excised connective tissue of the deformed mitral valve gives a basophilic reaction when stained with hematoxylin and eosin. When stained with toluidine blue it turns purple (metachromasia). What changes of the connective tissue can be detected by such reactions?

- a. Fibrinoid necrosis of connective tissue
- b. Petrification
- c. Hyalinosis

**d. Muroid swelling**

e. Connective tissue edema

137. A 69-year-old patient got a small plaque with subsequent ulceration on the skin of the lower eyelid. The formation was removed. Microscopic examination of dermis revealed complexes of atypical epithelial cells arranged perpendicularly to the basal membrane on the periphery. The cells

were dark, of polygonal prismatic shape with hyperchromic nuclei with frequent mitoses. What is the histological form of carcinoma in this patient?

- a. Undifferentiated carcinoma
- b. Basal cell carcinoma**
- c. Nonkeratinizing squamous cell carcinoma
- d. Keratinizing squamous cell carcinoma
- e. Adenocarcinoma

138. After a collision of two cars, one of the drivers presents with a deformity in the middle third of the left shin. The driver feels extreme pain that exacerbates on attempts to move it. The ends of a broken bone protrude from the open wound, the bone is triangular on section, movements cause the bleeding to intensify. What bone was damaged?

- a. Tibia**
- b. Femur
- c. Talus
- d. Patella
- e. Fibula

139. A certain disease of infection-allergic or unknown origin leads to bilateral diffuse or focal non-suppurative inflammation of renal glomerular apparatus with characteristic renal and extrarenal signs. Name this disease:

- a. Nephrosclerosis
- b. Glomerulonephritis**
- c. Nephrolithiasis
- d. Pyelonephritis
- e. Polycystic renal disease

140. A patient presents with acute onset of the disease: high fever and enlarged painful spleen. On the 10th day since the onset the patient developed a maculopapular rash on the abdomen. On the 21st day the patient died of peritonitis. Postmortem study of the body shows deep ulcers in the area of necrotic aggregate lymphoid follicles (Peyer's patches) in the ileum of the deceased. One of the ulcers is perforated and diffuse fibrinopurulent peritonitis is observed. What disease can be suspected in this case?

- a. Intestinal amebiasis
- b. Dysentery
- c. Typhoid fever**
- d. Cholera
- e. Salmonellosis

141. Autopsy of an 86-year-old woman, who suffered from cerebral atherosclerosis, shows atrophy of her cerebral cortex. Name this type of atrophy based on its cause:

- a. Caused by physico-chemical factors
- b. Pressure-induced
- c. Insufficient blood supply**
- d. Neurogenic
- e. Dysfunctional

142. An autopsy of a 42-year-old man, who suffered from chronic diffuse bronchitis and died of cardiopulmonary failure, shows large hyperinflated lungs that cover mediastinum with their edges. The lungs do not deflate, are colored pale gray, crunch on section; lung surface does not straighten out when pressed with a finger, resulting in a permanent depression. Mucopurulent exudate is produced from the bronchial lumen. What is the most likely diagnosis?

- a. Vicarious compensatory emphysema
- b. Chronic diffuse obstructive emphysema**
- c. Interstitial emphysema
- d. Chronic focal emphysema
- e. Primary idiopathic emphysema

143. Autopsy of a man with tuberculosis has revealed a 3x2 cm large cavity in the superior lobe of the right lung. The cavity was communicating with a bronchus, its wall was dense and consisted of three layers: the internal layer was pyogenic, the middle layer was made of tuberculous granulation tissue, and the external one was made of connective tissue. What is the most likely diagnosis?

- a. Acute focal tuberculosis
- b. Acute cavernous tuberculosis
- c. Fibrous focal tuberculosis
- d. Tuberculoma

**e. Fibrous cavernous tuberculosis**

144. The dentist examines a pregnant woman. There are 3 round lesions up to 1 cm in diameter on her oral mucosa. The lesions appeared 3 days ago, they have white-gray surface and red margin. The dentist can make the following diagnosis:

- a. Necrotizing ulcerative stomatitis
- b. Gangrenous stomatitis
- c. Leukoplakia
- d. Catarrhal stomatitis

**e. Aphthous stomatitis**

145. A 28-year-old patient presented with elevated blood pressure, hematuria, and facial edemas. Despite the treatment, the signs of renal failure were exacerbating. 6 months later the patient died of uremia. Microscopy of the kidneys shows proliferation of nephrothelium in the glomerular capsules and proliferation of podocytes that contributes to crescent formation. Sclerosis and hyalinosis of the glomeruli is observed. Make the diagnosis:

- a. Acute pyelonephritis
- b. Chronic glomerulonephritis
- c. Acute glomerulonephritis

**d. Subacute glomerulonephritis**

- e. Nephrotic syndrome

146. Autopsy of a man, who died suddenly with signs of acutely disturbed cerebral circulation, revealed aneurysm rupture of the medial cerebral artery and a round cavity 4 cm in diameter filled with blood in his frontal lobe. Name this type of hemorrhage:

**a. Hematoma**

- b. Hemorrhagic infiltration
- c. -
- d. Contusion
- e. Petechiae

147. During teeth examination on the lateral surface of the first upper molar there was detected a cone-shaped carious cavity with the base oriented toward the tooth surface and the apex - toward the tooth center. Softened dentin is visible in the floor of the carious cavity. Make the diagnosis:

- a. Enamel caries
- b. Tooth erosion
- c. -

**d. Dentin caries**

- e. Cement caries

148. A 23-year-old man developed a perforation in his hard palate, a dense formation with clear margins was detected in this area. After a surgery, microscopy of the excised formation shows there a large focus of caseous necrosis surrounded with a granulation tissue with endovascularitis and a cellular infiltration consisting of lymphocytes and epithelioid cells with predominance of plasma cells. What is the most likely disease in this case?

- a. Sarcoma

**b. Syphilis**

- c. Leprosy
- d. Tuberculosis



e. Scleroma

149. A 53-year-old woman complains of painful swelling in her left parotid area. The swelling appeared 5 days ago. Objectively the skin in this area is slightly hyperemic and tender. Excretory duct of the salivary gland produces a small amount of viscous turbid yellow-green liquid. Microscopy detects a diffuse infiltration of the gland with segmented neutrophils. Make the diagnosis:

a. Acute suppurative parotitis

b. Sjogren syndrome

c. Acute serous parotitis

d. Glandular adenoma

e. Epidemic parotitis

150. A 65-year-old man presents with acute mandibular osteomyelitis. 3 days after the disease onset he developed marked edema of skin and soft submandibular cervical tissues. Microscopically there is a diffuse infiltration with neutrophils. What complication of the main disease occurred in the patient's skin tissues?

a. Furuncle

b. Actinomycosis

c. Abscess

d. Carbuncle

e. Phlegmon

151. Oral examination revealed dark yellow and brown spots and stripes on the labial and lingual surfaces of the patient's teeth; more than the half of the dental surface is affected; enamel and dentin are destroyed. What diagnosis is the most likely?

a. Cuneiform defect

b. Dystrophic calcification

c. Metastatic calcification

d. Dental calculus

e. Fluorosis

152. Mother of a 4-year-old child complains that the child developed elevated body temperature, tenesmus, diarrhea, and abdominal pain attacks. The child attends a preschool facility. Laboratory analysis detected mucus and blood admixtures in the child's feces. Name the changes that occur in the gastrointestinal tract during dysentery:

a. Gastroenteritis

b. Colitis

c. Enterocolitis

d. Gastritis

e. Enteritis

153. During autopsy of the patient, who died of cardiovascular failure, the patient's right foot is darkly colored. The vessels of the patient's thigh are partially obstructed by grayish-red clots. On the vessel walls there are yellowish-gray spots and fibrous plaques, some of which are of stony density. What clinicopathological type of atherosclerosis was complicated in the patient?

a. Atherosclerosis of aorta

b. Cerebral atherosclerosis

c. Atherosclerosis of lower extremities

d. Vascular intestinal atherosclerosis

e. Renal atherosclerosis

154. A 35-year-old man had been suffering from bronchial asthma for a long time. Eventually he developed a status asthmaticus that became lethal. Examination of section materials shows a bronchiolar spasm in the lungs. The bronchiolar walls show signs of cellular infiltration with predominance of eosinophilic leukocytes and lymphocytes, labrocytes with signs of degranulation are observed. What mechanism of hypersensitivity is the cause of these changes?

a. Antibody-dependent

b. Cell-mediated cytotoxicity

C. -

**d. Reaginic reaction**

e. Immune complex

155. Examination of a tooth shows that there is a large cavity in its crown. The floor of the cavity consists of thin layer of softened dentin that separates the cavity from the pulp. What is the most likely diagnosis?

a. Periodontitis

**b. Deep caries**

c. Superficial caries

d. Median caries

e. Pulpitis