

1) krok 2020

DISCIPLINE

TOPIC: Diseases of the female and male reproductive system.

Histological investigation of the uterine scrape of the 45-year-old woman with disturbed ovarian menstrual cycle revealed increased number of endometrial glands, some of which are serrated, while others are dilated and cyst-like. Make the diagnosis:

- A. Endometrial cystic glandular hyperplasia
- B. Placental polyp
- C. Atypical endometrial hyperplasia
- D. Glandular endometrial polyp
- E. Endometrial adenocarcinoma

2) krok 2020

DISCIPLINE

TOPIC: Violation of hemostasis. Thrombosis, disseminated intravascular coagulation. Embolism.

A patient with chronic heart failure presents with increased blood viscosity. Capillaroscopy detected damage to the vessel walls of the microcirculation system. What disorder is possible in the given case?

- A. Blood "sludge" phenomenon
- B. Thrombosis
- C. Embolism
- D. Arterial hyperemia
- E. Venous hyperemia

3) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

A patient has hoarseness of voice. During laryngoscopy a gray-white larynx tumor with papillary surface has been detected. Microscopic investigation has shown the following: growth of connective tissue covered with multilayer, strongly keratinized pavement epithelium, no cellular atypia. What is the most likely diagnosis?

- A. Papilloma
- B. Fibroma
- C. Polyp
- D. Angioma
- E. Angiofibroma

4) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

A 67-year-old patient with clinical diagnosis of chronic bronchitis, pneumosclerosis, and cardiopulmonary decompensation has the biopsy material taken from the suspicious area in his right bronchus mucosa. Cellular and tissue atypism along with pearly bodies can be histologically detected. What pathologic process is characterized by the described histological changes?

- A.** Squamous cell carcinoma of bronchus with keratinization
- B.** Polypoid chronic bronchitis
- C.** Bronchiectasis
- D.** Acute bronchitis
- E.** Squamous cell metaplasia of bronchial mucosa

5) krok 2020

DISCIPLINE

TOPIC: Processes of adaptation and compensation.

Section shows significant enlargement of the patient's right kidney. There is a nephrolith at the place of incision. Renal pelvic lumen is distended with accumulating urine. Renal parenchyma is acutely thinned out. What is the most correct diagnosis?

- A.** Hydronephrosis
- B.** Pyelectasis
- C.** Hydroureteronephrosis
- D.** Renal cyst
- E.** Nephroblastoma

6) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

A patient demonstrates sharp decrease of pulmonary surfactant activity. This condition can result in:

- A.** Alveolar tendency to recede
- B.** Decreased airways resistance
- C.** Decreased work of expiratory muscles
- D.** Increased pulmonary ventilation
- E.** Hyperoxemia

7) krok 2020

DISCIPLINE

TOPIC: Systemic connective tissue disease with autoimmunization.

A 30-year-old woman first developed pain, swelling, and skin redness in the area of joints about a year ago. Provisional diagnosis is rheumatoid arthritis. One of the likely causes of this disease is change in the structure of the following connective tissue protein:

- A.** Collagen
- B.** Mucin

- C. Myosin
- D. Ovalbumin
- E. Troponin

8) krok 2020

DISCIPLINE

TOPIC: Morphology of reversible and irreversible damage of cells and tissues. Extracellular accumulation of proteins, carbohydrates and lipids.

On autopsy of a 40-year-old woman, who had been suffering from rheumatoid arthritis, her liver is found to be dense and enlarged. On dissection its tissue is red-brown colored, with enlarged follicles resembling semi-transparent grayish-white granules. What is the most likely pathological process?

- A. Sago spleen
- B. Sugar-coated spleen
- C. Lardaceous spleen
- D. Splenic hyalinosis
- E. Porphyry spleen

9) krok 2020

DISCIPLINE

TOPIC: Diseases of the respiratory system.

On autopsy the dissector determined that the lungs are enlarged, pale, soft, do not deflate, crunch when cut. Microscopically there are dilated alveolar ducts, alveolar septa are thin, and signs of intracapillary sclerosis are observed. What pulmonary disorder are these presentations characteristic of?

- A. Emphysema
- B. Pneumosclerosis
- C. Pneumothorax
- D. Atelectasis
- E. Pneumonia

10) krok 2020

DISCIPLINE

TOPIC: The metabolic disorders and metabolism. The morphology of abnormal accumulation of endogenous and exogenous pigments. The morphology of disorders of mineral metabolism.

During autopsy of a man, who had been suffering from mitral stenosis, the lungs are revealed to be dense and brown-colored. What pathologic process had occurred in the lungs?

- A. Hemosiderosis
- B. Hemochromatosis
- C. Jaundice
- D. Hemomelanososis
- E. Lipofuscinosis

11) krok 2020

DISCIPLINE

TOPIC: Atherosclerosis and arteriosclerosis. Coronary heart disease.

Examination of the coronary arteries revealed atherosclerotic plaques with calcinosis that close the arterial opening by 1/3. In the muscle there are numerous whitish layers of connective tissue. Name the process detected in the myocardium:

- A.** Diffuse cardiosclerosis
- B.** Tiger heart
- C.** Postinfarction cardiosclerosis
- D.** Myocarditis
- E.** Myocardial infarction

12) krok 2020

DISCIPLINE

TOPIC: Proliferative inflammation. Specific inflammation. Granulomatosis.

A 40-year-old man developed skin redness and swelling in the neck area, where eventually a small abscess appeared. On section the focus is dense and yellow-green colored. In the purulent masses there are white granules. Histologically there are fungal druses, plasma and xanthome cells, and macrophages detected. Specify the most correct etiological name of this pathological process:

- A.** Actinomycosis
- B.** Furuncle
- C.** Carbuncle
- D.** Syphilis
- E.** Leprosy

13) krok 2020

DISCIPLINE

TOPIC: For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

A 40-year-old woman has undergone thyroidectomy. Histological study of thyroid gland found the follicles to be of different size and contain foamy colloid, follicle epithelium is high and forms papillae, there is focal lymphocytic infiltration in the stroma. Diagnose the thyroid gland disease:

- A.** Basedow's disease
- B.** Hashimoto's thyroiditis
- C.** Riedel's thyroiditis
- D.** De Quervain's disease
- E.** Nodular goiter

14) krok 2020

DISCIPLINE

TOPIC: Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases.

Autopsy of a 9-year-old child shows numerous irregular defects of varying depth with uneven margins and gray-white films tightly attached to the underlying tissue on the rectal mucosa of the body. What disease can be suspected?

- A.** Dysentery
- B.** Salmonellosis
- C.** Cholera
- D.** Typhoid fever
- E.** Amebiasis

15) krok 2020

DISCIPLINE

TOPIC: Systemic disease of connective tissue with immune system disturbances.

A 38-year-old man, who has been suffering from systemic lupus erythematosus for 3 years, developed diffuse renal lesions accompanied by massive edemas, marked proteinuria, hyperlipidemia, and dysproteinemia. What is the most likely mechanism of proteinuria development in this case?

- A.** Autoimmune damage to the nephrons
- B.** Inflammatory damage to the nephrons
- C.** Ischemic damage to the tubules
- D.** Increased blood proteins
- E.** Morbid affection of the urinary tracts

16) krok 2020

DISCIPLINE

TOPIC: Systemic disease of connective tissue with immune system disturbances.

A woman with polyarticular rheumatoid arthritis was prescribed a non-steroidal antiinflammatory drug - diclofenac sodium. After the patient has been taking it for some time, her concomitant disease exacerbated, which forced the doctor to cancel the prescription of this drug. What concomitant disease could necessitate cancellation of this drug prescription?

- A.** Ulcer disease
- B.** Ischemic heart disease
- C.** Diabetes mellitus
- D.** Essential hypertension
- E.** Bronchial asthma

17) krok 2020

DISCIPLINE

TOPIC: Tuberculosis

A 40-year-old prisoner died of tuberculosis in the corrective labor camp. Autopsy of the body revealed deformation and diminishing of both lung apices; in the both upper lobes there

are multiple cavities with dense walls 2-3 mm thick; in the lower lung lobes there are disseminated foci of caseous necrosis varying from 5 mm to 2 cm in diameter. Diagnose the type of tuberculosis:

- A. Secondary fibro-cavitary tuberculosis
- B. Secondary fibrous-focal tuberculosis
- C. Hematogenous macrofocal pulmonary tuberculosis
- D. Primary tuberculosis, primary affect development
- E. Secondary cirrhotic tuberculosis

18) krok 2020

DISCIPLINE

TOPIC: Leukemias (leukemia) and lymphomas.

A 7-year-old boy died of acute posthemorrhagic anemia caused by profuse hemorrhage in the gastrointestinal tract. Postmortem study revealed the following: macroscopically there were acutely enlarged various groups of the lymph nodes, thymomegaly, hepatosplenomegaly, and bright red bone marrow; microscopically there was hypercellular bone marrow with monomorphic infiltrations composed of blasts and diffuse-focal tumor infiltrations in the liver, spleen, lymph nodes, brain substance and tunics. Make the diagnosis:

- A. Acute lymphoblastic leukemia
- B. Acute myeloblastic leukemia
- C. Acute undifferentiated leukemia
- D. Acute monoblastic leukemia
- E. Acute plasmablastic leukemia

19) krok 2020

DISCIPLINE

TOPIC: Leukemias (leukemia) and lymphomas.

Autopsy of a man, who served on a nuclear submarine, revealed the following pathologies: bone marrow atrophy (panmyelophthisis), anemia, leukopenia, thrombocytopenia, lymphocytes disintegration in the lymph nodes, spleen, gastrointestinal lymphatic system, and hemorrhages into the adrenal glands. What disease had developed in this case?

- A. Acute radiation sickness
- B. Decompression sickness
- C. Acute leukemia
- D. Acute anemia
- E. Vibration disease

20) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

After sensitization a test animal received subcutaneously a dose of antigen. At the site of injection a fibrinous inflammation developed with alteration of vessel walls, basal substance, and fibrous structures of connective tissue. The inflammation took form of mucoid and fibrinoid degeneration, fibrinoid necrosis. What immune response occurred in the test animal?

- A. Immediate hypersensitivity
- B. Delayed hypersensitivity
- C. Transplantation immune reaction
- D. Normergic reaction
- E. Granulomatosis

21) krok 2020

DISCIPLINE

TOPIC Viral airborne infection. HIV infection. Rabies.

Brain autopsy revealed an edema, hyperemia, and small hemorrhages in the medulla oblongata. Microscopically chromatolysis, hydropia and nerve cell necrosis are observed; within the cytoplasm of hippocampal nerve cells there are eosinophilic structures (Negri bodies) detected. What diagnosis corresponds with the described morphological signs?

- A. Rabies
- B. Meningococcal meningitis
- C. Encephalitis
- D. Encephalomyelitis
- E. Brucellosis

22) krok 2020

DISCIPLINE

TOPIC: Viral airborne infection. HIV infection. Rabies.

A worker of an agricultural enterprise had been suffering from an acute disease with aggravating intoxication signs, which resulted in his death. On autopsy: the spleen is enlarged, flaccid, dark cherry-red on section, yields excessive pulp scrape. Soft meninges of the fornix and base of the brain are edematous and saturated with blood ("cardinal's cap"). Microscopically: serous-hemorrhagic inflammation of meninges and cerebral tissues. Make the diagnosis:

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

23) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A 5-year-old child is diagnosed with Bruton syndrome (X-linked agammaglobulinemia) that manifests itself in severe clinical course of bacterial infections and absence of B lymphocytes and plasma cells. What changes of immunoglobulin content can be observed in blood serum of the child with immunodeficiency?

- A. Decreased IgA, IgM
- B. Increased IgA, IgM
- C. Decreased IgD, IgE
- D. Increased IgD, IgE
- E. No changes

24) krok 2020

DISCIPLINE

TOPIC: Cerebro - vascular diseases.

A 37-year-old man, who was working in a caisson, after being lifted to the surface suddenly developed signs of acute cerebral circulation disturbance and loss of consciousness. Several days later he died. On autopsy in the left cerebral hemisphere there was detected a gray soft irregular focus 5x6x3,5 cm in size. What process had occurred in the brain?

- A. Ischemic stroke
- B. Hemorrhagic infarction
- C. Abscess
- D. Cyst
- E. Tumor

25) krok 2020

DISCIPLINE

TOPIC: The subject and objectives of pathomorphology. Methods of pathological research. The main stages of development of pathology. the accumulation of proteins, carbohydrates and lipids. Morphology of reversible and irreversible damage of cells and tissues. Intracellular accumulation of proteins, carbohydrates and lipids.

A 2-year-old child presents with acute psychomotor retardation, vision and hearing impairment, sharp enlargement of the liver and spleen. The child is diagnosed with hereditary Niemann-Pick disease. What genetic defect is the cause of this disease?

- A. Sphingomyelinase deficiency
- B. Glucose 6-phosphatase deficiency
- C. Amylo-1,6-glucosidase deficiency
- D. Acid lipase deficiency
- E. Xanthine oxidase deficiency

26) krok 2020

DISCIPLINE

TOPIC: Liver Disease

After mushroom poisoning the patient developed signs of acute hepatic failure leading to his death. On autopsy the liver is diminished, flaccid; the capsule is wrinkled; the tissue is

ochre-yellow on section. Microscopically: fatty degeneration of hepatocytes, necrotic central segments of the hepatic lobes. These changes are characteristic of:

- A. Massive progressive necrosis
- B. Fatty hepatitis
- C. Acute exudative hepatitis
- D. Acute productive hepatitis
- E. Hepatolenticular degeneration

27) krok 2020

DISCIPLINE

TOPIC: Diseases of the respiratory system.

Autopsy of a patient, who died of bi-lateral bronchopneumonia, shows in the left lung lower lobe a cavity 5 cm in di-iameter, filled with liquid yellowish-white substance. What complication of the pati-ent's pneumonia had developed?

- A. Abscess
- B. Gangrene
- C. Granuloma
- D. Sequestrum
- E. Tuberculoma

28) krok 2020

DISCIPLINE

TOPIC: Diseases of the esophagus, stomach and intestines.

At the post-mortem examination the stomach of a patient with renal failure was found to have a yellow-brown coating on the thickened mucosa. The coating was firmly adhering to its surface and had significant thickness. Microscopy revealed congestion and necrosis of mucosal and submucosal layers, fibrin presence. What is the most likely diagnosis?

- A. Fibrinous gastritis
- B. Croupous gastritis
- C. Phlegmonous gastritis
- D. Catarrhal gastritis
- E. Corrosive gastritis

29) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

On bronchoscopy there is a polypoid growth 1,0 cm in diameter with ulcer in its center in the upper lobe of the right lung. Histological investigation revealed a tumor composed of lymphocyte-like cells with hyperchromic nuclei, the cells form layers and bands. What is the most likely tumor type?

- A. Undifferentiated small cell carcinoma
- B. Undifferentiated large cell carcinoma
- C. Squamous cell carcinoma

- D. Adenocarcinoma**
- E. Glandular squamous cell carcinoma**

30) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A 22-year-old woman ate some seafood. 5 hours later her torso and distal parts of her limbs developed small itchy papules which were partially fused together. One day later the rash disappeared spontaneously. Specify the hypersensitivity mechanism underlying these changes:

- A. Atopy (local anaphylaxis)**
- B. Systemic anaphylaxis**
- C. Cellular cytotoxicity**
- D. Immune complex hypersensitivity**
- E. Antibody-dependent cell-mediated cytotoxicity**

31) krok 2020

DISCIPLINE

TOPIC: Sepsis. Syphilis.

In a body of a 37-year-old woman, who died with signs of pulmonary edema, there was detected acute deformation of the aortic valve: it is shortened, thickened, ulcerated, has areas of stone-like density. On its external surface there are large, up to 2 cm in diameter, thrombotic plaques. Left ventricle wall is 2,2 cm thick. Cardiac muscle is dull, matt, and flaccid. What type of endocarditis corresponds with described alterations of the aortic valve?

- A. Ulcerative polypoid endocarditis**
- B. Diffuse endocarditis**
- C. Acute verrucous endocarditis**
- D. Recurrent verrucous endocarditis**
- E. Fibroplastic endocarditis**

32) krok 2020

DISCIPLINE

TOPIC: Diseases of the respiratory system.

A patient suffers from high fever, apnoea, pain in the thorax on the right. Pleurocentesis yielded 700 ml of yellow-green viscous liquid. Make the diagnosis:

- A. Pleural empyema**
- B. Bronchial pneumonia**
- C. Serous pleurisy**
- D. Hemorrhagic pleurisy**
- E. Pleural carcinomatosis**

33) krok 2020

DISCIPLINE

TOPIC: Diseases of the esophagus, stomach and intestines.

During autopsy approximately 2,0 liters of pus have been found in the abdominal cavity of the body. Peritoneum is dull and of grayish shade, serous tunic of intestines has grayish-colored coating that is easily removable. Specify the most likely type of peritonitis in the patient:

- A.** Fibrinopurulent peritonitis
 - B.** Hemorrhagic peritonitis
 - C.** Serous peritonitis
 - D.** Tuberculous peritonitis
-

34) krok 2020

DISCIPLINE

TOPIC: Leukemias (leukemia) and lymphomas.

Autopsy of a body revealed bone marrow hyperplasia of tubular and flat bones (pyoid marrow), splenomegaly (6 kg) and hepatomegaly (5 kg), enlargement of all lymph node groups. What disease are the identified changes typical of?

- A.** Chronic myelogenous leukemia
- B.** Chronic lymphocytic leukemia
- C.** Multiple myeloma
- D.** Polycythemia vera
- E.** Hodgkin's disease

35) krok 2020

DISCIPLINE

TOPIC: Atherosclerosis and arteriosclerosis. Coronary heart disease.

A 60-year-old patient with a long hi-story of atherosclerosis and a previous myocardial infarction developed an attack of retrosternal pain. 3 days later the patient was hospitalized and then died of progressive cardiovascular insufficiency. During autopsy a white fibrous depressed area about 3 cm in diameter with clear margins was found within the area of posterior wall of the left ventricle and interventricular septum. The dissector considered these changes to be:

- A.** Focal cardiosclerosis
- B.** Myocardial ischemia
- C.** Myocardial infarction
- D.** Myocarditis
- E.** Myocardial degeneration

36) krok 2020

DISCIPLINE

TOPIC: Tuberculosis.

A man is 28 years old. Histological investigation of the cervical lymph node revealed a

change of its pattern due to proliferation of epithelioid, lymphoid cells and macrophages with horseshoe-shaped nuclei. In the center of some cell clusters there were non-structured light-pink areas with fragments of nuclei. What disease are these changes typical of?

- A. Tuberculosis
- B. Hodgkin's disease
- C. Actinomycosis
- D. Tumor metastasis
- E. Syphilis

37) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A patient, having suffered a thermal burn, developed painful boils filled with turbid liquid in the skin. What morphological type of inflammation has developed in the patient?

- A. Serous
- B. Proliferative
- C. Croupous
- D. Granulomatous
- E. Diphtheritic

38) krok 2020

DISCIPLINE

TOPIC: Tuberculosis

Autopsy of a man with tuberculosis revealed a 3x2 cm large cavity in the superior lobe of the right lung. The cavity was interconnected 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. Fibrous cavernous tuberculosis
- B. Fibrous focal tuberculosis
- C. Tuberculoma
- D. Acute focal tuberculosis
- E. Acute cavernous tuberculosis

39) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A 7-year-old child has acute onset of disease: temperature rise up to 38°C, rhinitis, cough, lacrimation, and large-spot rash on the skin. Pharyngeal mucosa is edematous, hyperemic, with whitish spots in the buccal area. What kind of inflammation caused the changes in the buccal mucosa?

- A. Catarrhal inflammation

- B.** Suppurative inflammation
- C.** Fibrinous inflammation
- D.** Hemorrhagic inflammation
- E.** Serous inflammation

40) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

During autopsy of a man, who di-ed of acute transmural cardiac infarction, the following has been detected on the pericardium surface: fibrous whitish-brown deposit connecting parietal and visceral pericardial layers. What kind of inflammati-on occurred in the pericardium?

- A.** Croupous
- B.** Diphtheritic
- C.** Serous
- D.** Suppurative
- E.** Granulomatous

41) krok 2020

DISCIPLINE

TOPIC: Morphology of reversible and irreversible damage of cells and tissues. Extracellular accumulation of proteins, carbohydrates and lipids.

A 63-year-old man, who has been suffering from chronic fibrous-cavernous pulmonary tuberculosis for 24 years, has been delivered to a nephrology department with uremia. Intravital diagnostic test for amyloid in the kidneys was positive. What amyloidosis is it in this case?

- A.** Secondary systemic
- B.** Primary systemic
- C.** Localized (focal)
- D.** Hereditary (genetic)
- E.** Senile

42) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

A woman gave birth to a stillborn baby with numerous malformations. What protozoan disease could cause intrauterine death?

- A.** Toxoplasmosis
- B.** Leishmaniasis
- C.** Malaria
- D.** Amebiasis
- E.** Lambliasis

43) krok 2020

DISCIPLINE

TOPIC: Diseases of the female and male reproductive system.

On histological examination of uterine mucosa the following is detected: sinuous glands, serratiform and corkscrew-shaped elongated growths of stroma with cell proliferation. Make the diagnosis:

- A. Glandular endometrial hyperplasia
- B. Acute endometritis
- C. Leiomyoma
- D. Vesicular mole
- E. Placental polyp

44) krok 2020

DISCIPLINE

TOPIC: For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

Autopsy of a 40-year-old woman, who died of cerebral hemorrhage during hypertensive crisis, revealed: upper-body obesity, hypertrichosis, hirsutism, stretchmarks on the skin of thighs and abdomen. Pituitary basophil adenoma is detected in the anterior lobe. What diagnosis is the most likely?

- A. Cushing's disease
- B. Essential hypertension
- C. Alimentary obesity
- D. Simmonds' disease
- E. Hypothalamic obesity

45) krok 2020

DISCIPLINE

TOPIC: Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases.

A worker of an agricultural enterprise had been suffering from an acute disease with aggravating intoxication signs, which resulted in his death. On autopsy: the spleen is enlarged, flaccid, dark cherry-red in the section, yields excessive pulp scrape. Soft meninges of fornix and base of the brain are edematous and saturated with blood ("cardinal's cap"). Microscopically: serous-hemorrhagic inflammation of meninges and cerebral tissues. Make the diagnosis:

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

46) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

Autopsy of an 8-month-old boy, who died of severe pneumonia complicated with sepsis, revealed absence of thymus. Lymph nodes have no lymphoid follicles and cortical substance. In the spleen the follicles are decreased in size and have no light centers. What is the cause of such changes?

- A.** Thymus agenesis
- B.** Thymus aplasia
- C.** Thymus atrophy
- D.** Thymus hypoplasia
- E.** Accidental thymic involution

47) krok 2020

DISCIPLINE

TOPIC The General doctrine about the tumors. Morphological features of tumor tissues derived mesenchyme.

Vestibular receptors of semicircular canals of an animal have been destroyed. What reflexes will disappear as a result?

- A.** Statokinetic reflex during movements with angular acceleration
- B.** Statokinetic reflex during movements with linear acceleration
- C.** Head-righting reflex
- D.** Body-righting reflex
- E.** Primary orienting reflex

48) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

Parents of a 5-year-old child report him to have frequent colds that develop into pneumonias, presence of purulent rashes on the skin. Laboratory tests have revealed the following: absence of immunoglobulins of any type; naked cells are absent from the lymph nodes punctate. What kind of immune disorder is it?

- A.** X-linked hypogammaglobulinemia (Bruton type agammaglobulinemia)
- B.** Autosomal recessive agammaglobulinemia (Swiss type)
- C.** Hypoplastic anemia
- D.** Agranulocytosis
- E.** Louis-Barr syndrome

49) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors of the nervous tissue. Features of tumours of the Central nervous system.

Autopsy of a 5-year-old child revealed in the area of the vermis of cerebellum a soft grayish-pink node 2 cm in diameter with blurred margins and areas of haemorrhage. Histologically this tumour consisted of atypical monomorphous small round cells with large polymorphous nuclei. What tumour is it?

- A.** Medulloblastoma
- B.** Meningioma
- C.** Glioblastoma
- D.** Astrocytoma
- E.** Oligodendroglioma

50) krok 2020

DISCIPLINE

TOPIC: Violation of hemostasis. Thrombosis, disseminated intravascular coagulation. Embolism.

A man has suffered multiple bone fractures of his lower extremities during a traffic accident. During transportation to a hospital his condition was further aggravated: blood pressure decreased, there were signs of pulmonary artery embolism. What kind of embolism is the most likely in the given case?

- A.** Fat embolism
- B.** Air embolism
- C.** Gas embolism
- D.** Tissue embolism
- E.** Thromboembolism

51) krok 2020

DISCIPLINE

TOPIC: Systemic connective tissue disease with autoimmunization.

Autopsy of a 28-year-old patient, who had been suffering from rheumatism and died of heart failure, revealed pancarditis. Histological investigation of myocardium of the left ventricle posterior wall and interventricular septum detected peri-vascular cellular focal infiltrates composed of macrophages and creating palisade structures surrounding areas of fibrinoid necrosis. Determine the type of myocarditis:

- A.** Granulomatous
- B.** Diffuse interstitial productive
- C.** Diffuse interstitial exudative
- D.** Focal interstitial exudative
- E.** -

52) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

What condition may develop 15-30 minutes after re-administration of an antigen as a result of the increased level of antibodies, mainly IgE, that are adsorbed on the surface of target cells, namely tissue basophils (mast cells) and blood basophils?

- A.** Anaphylaxis
- B.** Antibody-dependent cytotoxicity
- C.** Delayed-type hypersensitivity
- D.** Immune complex hyperresponsiveness
- E.** Serum sickness

53) krok 2020

DISCIPLINE

TOPIC: Morphology of reversible and irreversible damage of cells and tissues. Extracellular accumulation of proteins, carbohydrates and lipids.

During pathomorphological renal investigation of a patient, who for a long time had been suffering from osteomyelitis and died of progressing renal failure, the following was revealed: deposits of homogeneous eosinophilic masses in glomerular mesangium, arterial and arteriolar walls, and stroma, which colored red when stained with Congo red. What pathological process is this?

- A.** Amyloidosis
- B.** Mucoïd swelling
- C.** Calcinosiis
- D.** Carbohydrate degeneration
- E.** Hyalinosis

54) krok 2020

DISCIPLINE

TOPIC: Damage and death of cells and tissues. Necrosis and apoptosis. Pathological anatomy organ failure. Foundations of thanatology. Death, definition, signs of death.

A patient with femoral neck fracture, who for a long time had to remain in bed in a forced (supine) position, has developed dark-brown lesions along the backbone; soft tissues are swollen, in the areas of maceration there is a foul-smelling liquid. Name the clinicopathologic type of necrosis:

- A.** Bedsore
- B.** Infarction
- C.** Sequestrum
- D.** Coagulation necrosis
- E.** Dry gangrene

55) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

A 67-year-old patient with clinical diagnosis of chronic bronchitis, pneumosclerosis, and cardiopulmonary decompensation has the biopsy material taken from the suspicious area in his right bronchus mucosa. Cellular and tissue atypism along with pearly bodies can be histologically detected. What pathologic process is characterized by the described histological changes?

- A. Squamous cell carcinoma of bronchus with keratinization
- B. Polypoid chronic bronchitis
- C. Bronchiectasis
- D. Acute bronchitis
- E. Squamous cell metaplasia of bronchial mucosa

56) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A 7-year-old child has acute onset of disease: temperature rise up to 38°C , rhinitis, cough, lacrimation, and large-spot rash on the skin. Pharyngeal mucosa is edematous, hyperemic, with whitish spots in the buccal area. What kind of inflammation causes the changes in the buccal mucosa?

- A. Catarrhal inflammation
- B. Suppurative inflammation
- C. Fibrinous inflammation
- D. Hemorrhagic inflammation
- E. Serous inflammation

57) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A 12-year-old child has developed nephritic syndrome (proteinuria, hematuria, cylindruria) 2 weeks after the case of tonsillitis, which is a sign of affected glomerular basement membrane in the kidneys. What mechanism is the most likely to cause the basement membrane damage?

- A. Immune complex
- B. Granulomatous
- C. Antibody-mediated
- D. Reaginic
- E. Cytotoxic

58) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

Several minutes after a dentist administered novocaine for local anaesthesia of a patient's tooth, the following symptoms sharply developed in the patient: fatigue, skin itching. Objectively the following can be observed: skin hyperemia, tachycardia, BP dropped down to 70/40 mm Hg. What kind of allergic reaction is this pathology?

- A. Anaphylactic
- B. Cytotoxic
- C. Stimulating
- D. Cell-mediated immune reaction
- E. Immune complex

59) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

On examination of a newborn boy's external genitalia a fissure in the urethra opening on the inferior surface of his penis is detected. What maldevelopment is it?

- A. Hypospadias
- B. Hermaphroditism
- C. Epispadia
- D. Monorchism
- E. Cryptorchidism

60) krok 2020

DISCIPLINE

TOPIC: Viral airborne infection. HIV infection. Rabies.

A child is 10 years old. The following presentations have developed: sharp pain during swallowing, swollen neck, body temperature rise up to 39, 0°C, bright-red finely papular rash all over the body. Pharynx and tonsils are sharply hyperemic ("flaming pharynx"), "crimson tongue". On the tonsils surface there are isolated greyish necrosis foci. What disease it might be?

- A. Scarlet fever
- B. Meningococcal nasopharyngitis
- C. Diphtheria
- D. Influenza
- E. Measles

61) krok 2020

DISCIPLINE

TOPIC: Leukemias (leukemia) and lymphomas.

During histological analysis of the lymph node situated in the posterior neck triangle of an 18-year-old patient a morphologist detected a cluster of cells including the following:

isolated multinucleate Reed-Sternberg cells, large and small Hodgkin's cells and numerous lymphocytes, isolated plasma cells, eosinophils. What disease has developed in the patient?

- A. Lymphogranulomatosis
- B. Nodular lymphoma
- C. Burkitt's lymphoma
- D. Lymphocytic lymphoma
- E. Chronic lymphocytic leukemia

62) krok 2020

DISCIPLINE

TOPIC: Diseases of the esophagus, stomach and intestines.

A 39-year-old man who had been operated for the stomach ulcer died 7 days after the surgery. Autopsy revealed that peritoneal leaves were dull, plephoric, covered with massive yellow-greenish films, the peritoneal cavity contained about 300 ml of thick yellow-greenish liquid. What pathologic process was revealed in the peri-toneal cavity?

- A. Fibrinous suppurative peritonitis
- B. Serous peritonitis
- C. Fibrinous serous peritonitis
- D. Peritoneal commissures
- E. Fibrinous haemorrhagic peritonitis

63) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

Acute renal impairment caused death of a patient with hemorrhage. Autopsy revealed enlarged kidneys with broad pale-pink cortical layer expressively demarcated from dark-red renal pyramids. Macroscopic examination revealed lack of epithelial nuclei of convoluted tubules, tubulorrhesis, phlebostasis. The cell nuclei of choroid glomus and straight tubules were present. What pathology is it?

- A. Necronephrosis
- B. Infarction
- C. Glomerulonephritis
- D. Pyelonephritis
- E. Nephrosis

64) krok 2020

DISCIPLINE

TOPIC: Tuberculosis

A 3-year-old child with meningeal symptoms died. Postmortem macroscopy of the pia matter revealed miliary nodules which were microscopically represented by a focus of caseous necrosis with masses of epithelioid and lymphoid cells with large cells containing crescent-shaped peripheral nuclei situated between them. Specify the type of meningitis in the child:

- A. Tuberculous
- B. Syphilitic
- C. Brucellar
- D. Grippal
- E. Meningococcal

65) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

2 days after labour a woman developed shock along with DIC syndrome that caused her death. Autopsy revealed purulent endomyometritis, regional purulent lymphangitis, lymphadenitis and purulent thrombophlebitis. There were also dystrophic alterations and interstitial inflammation of parenchymal organs. What is the most likely diagnosis?

- A. Septicemia
- B. Syphilis
- C. Tuberculosis of genital organs
- D. Chorioadenoma destruens
- E. Hydatid mole

66) krok 2020

DISCIPLINE

TOPIC: Systemic connective tissue disease with autoimmunization.

A patient with high-titer antinuclear antibodies died from progressing renal impairment. Autopsy revealed mesangioproliferative glomerulonephritis and abacterial polypous endocarditis. Periarterial bulbar sclerosis was detected in spleen and productive proliferative vasculitis in skin. What is the most likely diagnosis?

- A. Systemic lupus erythematosus
- B. Nephrotic syndrome
- C. Rheumatism
- D. Dermatomyositis
- E. Periarthritis nodosa

67) krok 2020

DISCIPLINE

TOPIC: Violation of hemostasis. Thrombosis, disseminated intravascular coagulation. Embolism.

During intravenous saline transfusion a patient's condition deteriorated drastically, and the patient died from asphyxiation. Autopsy revealed acute venous congestion of internal organs with sharp right heart dilatation. When the right ventricle was punctured underwater, the bubbles escaped. What pathological process occurred in the patient?

- A. Air embolism
- B. Gaseous embolism
- C. Adipose embolism

- D.** Tissue embolism
- E.** Thromboembolism

68) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

During blood transfusion a patient has developed intravascular erythrocyte hemolysis. What kind of hypersensitivity does the patient have?

- A.** II type (antibody-dependent)
- B.** I type (anaphylactic)
- C.** III type (immune complex)
- D.** IV type (cellular cytotoxicity)
- E.** IV type (granulomatosis)

69) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from melaniebrady tissue.

A 65-year-old man suddenly lost vision in one eye due to the retinal detachment. The patient underwent enucleation. Hi-stological examination of the removed eye retina and choroid revealed clusters of atypical cells with marked polymorphism of cells and nuclei, with a moderate number of mi-toses including the pathological ones. The cell cytoplasm and intercellular medium contained brown pigment resulting in posi-tive DOPA reaction. Perls' reaction was negative. What is the most likely diagnosis?

- A.** Melanoma
- B.** Pigmented mole
- C.** Hemorrhage
- D.** Cysticercosis
- E.** Wilson's disease

70) krok 2020

DISCIPLINE

TOPIC: Viral airborne infection. HIV infection. Rabies.

An HIV-positive patient's cause of death is acute pulmonary insufficiency resulting from pneumonia. Pathohistological investigation of lungs has revealed intersti-tial pneumonia, alveolocyte desquamation and methamorphoses: alveolocyte enlargement, large intranuclear inclusi-ons surrounded by lightly-coloured areas. Transformed cells resemble owl's eye. Name the causative agent of pneumonia:

- A.** Cytomegalovirus
- B.** Pneumococcus
- C.** Influenza virus
- D.** *Candida* fungi
- E.** Toxoplasma

71) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A patient has undergone surgical removal of a cavitory liver lesion 2 cm in diameter. It was revealed that the cavity wall was formed by dense fibrous connective tissue; the cavity contained murky thick yellowish-green fluid with an unpleasant odor. Microscopically the fluid consisted mainly of polymorphonuclear leukocytes. What pathological process are these morphological changes typical for?

- A.** Chronic abscess
- B.** Acute abscess
- C.** Phlegmon
- D.** Empyema
- E.** -

72) krok 2020

DISCIPLINE

TOPIC: Anemia. Thrombocytopenia and thrombocytopathy. Coagulopathy.

A patient is diagnosed with chronic atrophic gastritis attended by deficiency of Castle's intrinsic factor. What type of anemia does the patient have?

- A.** B₁₂-deficiency anemia
- B.** Iron refractory anemia
- C.** Hemolytic anemia
- D.** Iron-deficiency anemia
- E.** Protein-deficiency anemia

73) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A 53-year-old man suffering from di-abetes mellitus has developed a painful conical induration, bluishred with yellow center, on the skin of his neck. Such changes are characteristic of:

- A.** Furuncle
- B.** Abscess
- C.** Carbuncle
- D.** Phlegmon
- E.** Empyema

74) krok 2020

DISCIPLINE

TOPIC: Cerebro - vascular diseases.

Parkinson's disease is caused by disruption of dopamine synthesis. What brain structure synthesizes this neurotransmitter?

- A. Substantia nigra
- B. Globus pallidus
- C. Corpora quadrigemina
- D. Red nucleus
- E. Hypothalamus

75) krok 2020

DISCIPLINE

TOPIC: Morphology of reversible and irreversible damage of cells and tissues. Extracellular accumulation of proteins, carbohydrates and lipids.

During pathomorphological kidney investigation of a patient, who for a long time had been suffering from osteomyelitis and died from progressing renal failure, the following was revealed: deposits of homogeneous eosinophilic masses in glomerular mesangium, arterial and arteriolar walls, and stroma, which became red when stained with Congo red. What pathological process is this?

- A. Amyloidosis
- B. Mucoïd swelling
- C. Calcinosis
- D. Carbohydrate degeneration
- E. Hyalinosis

76) krok 2020

DISCIPLINE

TOPIC: Children infections.

A 9-year-old boy has acute onset of disease: sore throat, body temperature rise up to 39, 5°C ; on the second day diffuse skin rash was detected all over his skin except for nasolabial triangle. On examination of oral cavity: crimson tongue, "flaming pharynx", necrotic tonsillitis. What diagnosis is the most likely?

- A. Scarlet fever
- B. Measles
- C. Diphtheria
- D. Influenza
- E. Meningococemia

77) krok 2020

DISCIPLINE

TOPIC: Systemic connective tissue disease with autoimmunization.

A 49-year-old man complains of pain in his metatarsophalangeal joints and joint deformation. In blood hyperuricemia can be observed. X-ray has revealed metatarsophalangeal joint space narrowing, erosion, periarticular calcification of the both

joints, osteoporosis. Microscopy has revealed inflammatory granulomatous reaction surrounding necrotizing masses in the area of the first metatarsophalangeal joint. Choose the most likely diagnosis:

- A. Gout (podagra)
- B. Pyrophosphate arthropathy
- C. Rheumatoid arthritis
- D. Hyperparathyroidism
- E. Urolithiasis

78) krok 2020

DISCIPLINE

TOPIC: Proliferative inflammation. Specific inflammation. Granulomatosis.

Granulomas containing lymphocytes and macrophages were detected during analysis of skin biopsy material. Among macrophages there are large cells with fat inclusions, which contain microorganisms in spheric packages (Virchow's cells). The following disease is based on the described type of hypersensitivity:

- A. Leprosy
- B. Syphilis
- C. Tuberculosis
- D. Rhinoscleroma
- E. Epidemic typhus

79) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

During autopsy of a 9-month-old girl's body, who died due to severe pneumonia complicated with sepsis, lack of thymus is observed. In the lymph nodes the lymphoid follicles and cortical substance are absent; follicles of spleen are reduced in size with no light zones and plasma cells. What is the cause of such structural changes?

- A. Thymus agenesis
- B. Accidental involution of thymus
- C. Thymus hypoplasia
- D. Thymus atrophy
- E. Thymus aplasia

80) krok 2020

DISCIPLINE

TOPIC: Diseases of the esophagus, stomach and intestines.

During autopsy approximately 2,0 liters of pus have been found in the abdominal cavity of the corpse. Peritoneum is lustreless and has grayish shade, serous tunic of intestines has grayish-colored coating that is easily removable. Specify the most likely type of peritonitis in the patient:

- A. Fibrinopurulent peritonitis
- B. Hemorrhagic peritonitis
- C. Serous peritonitis
- D. Tuberculous peritonitis
- E.-

81) krok 2020

DISCIPLINE

TOPIC: Atherosclerosis and arteriosclerosis. Coronary heart disease.

Autopsy of the dead patient who died from pulmonary edema revealed a large yellow-grey nidus in the myocardium, and a fresh thrombus in the coronary artery. What is the most likely diagnosis?

- A. Myocardial infarction
- B. Cardiosclerosis
- C. Myocarditis
- D. Amyloidosis
- E. Cardiomyopathy

82) krok 2020

DISCIPLINE

TOPIC: The metabolic disorders and metabolism. The morphology of abnormal accumulation of endogenous and exogenous pigments. The morphology of disorders of mineral metabolism.

A male patient is 28 years old. Histological study of a cervical lymph node revealed a change of its pattern due to the proliferation of epithelioid, lymphoid cells and macrophages having nuclei in form of a horseshoe. In the center of some cell clusters there were non-structured light-pink areas with fragments of nuclei. What disease are these changes typical for?

- A. Tuberculosis
- B. Hodgkin's disease
- C. Actinomycosis
- D. Tumor metastasis
- E. Syphilis

83) krok 2020

DISCIPLINE

TOPIC: Viral airborne infection. HIV infection. Rabies.

During autopsy the following has been revealed: the meninges of the upper cerebral hemispheres are extremely plethoric, of yellow-green color and are soaked with purulent effluent. What kind of meningitis is characterised by such clinical presentations?

- A. Meningococcal meningitis
- B. Tuberculous meningitis
- C. Grippal meningitis

- D.** Anthrax induced
- E.** Epidemic typhus induced

84) krok 2020

DISCIPLINE

TOPIC: For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

A 40-year-old female patient has undergone thyroidectomy. Histological study of thyroid gland found the follicles to be of different size and contain foamy colloid, follicle epithelium is high and forms papillae, there is focal lymphocytic infiltration in stroma. Diagnose the thyroid gland disease:

- A.** Basedow's disease
- B.** Hashimoto's thyroiditis
- C.** Riedel's thyroiditis
- D.** De Quervain's disease
- E.** Nodular goiter

85) krok 2020

DISCIPLINE

TOPIC: Children infections.

A 10-year-old child has painful swallowing, neck edema, temperature rise up to 39, 0°C, the whole body is covered with bright-red petechial rash. Back of the throat and tonsils are hyperemic, the tongue is crimson-colored. Tonsillar surface is covered with isolated grayish-colored necrosis nidi. What disease is it?

- A.** Scarlet fever
- B.** Meningococcal nasopharyngitis
- C.** Diphtheria
- D.** Influenza
- E.** Measles

86) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

A patient intending to undergo a gender reassignment surgery has been admitted to a specialised clinic. In the course of examination both male and female gonades have been revealed, with male structure of external genitals. What kind of genital maldevelopment has the patient?

- A.** True hermaphroditism
- B.** Male pseudohermaphroditism
- C.** Female pseudohermaphroditism
- D.** Accessory ovary
- E.** Ectopia of testis

87) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

In the course of puncture biopsy of transplanted kidney the following has been revealed: diffuse infiltration of stroma by lymphocytes and plasmocytes and necrotic arteritis. What pathological process has developed in the transplant?

- A. Immune rejection
- B. Ischemic kidney failure
- C. Glomerulonephritis
- D. Tubular necrosis
- E. Pyelonephritis

88) krok 2020

DISCIPLINE

TOPIC

During cell division, DNA replication occurs by a signal from the cytoplasm, and a certain portion of the DNA helix unwinds and splits into two individual strains. What enzyme facilitates this process?

- A. Helicase
- B. RNA polymerase
- C. Ligase
- D. Restrictase
- E. DNA polymerase

89) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

Tissue sampling of a 37-year-old male patient with chronic renal disease has revealed the following: sclerosis, lymphocytic and plasmocytic infiltration of renal pelvis and calices walls, dystrophy and atrophy of tubules. Remaining tubules are enlarged and stretched with colloid masses, epithelium is flattened out ("scutiform" or "shield-shaped" kidney). What is the most likely diagnosis?

- A. Chronic pyelonephritis
- B. Tubular interstitial nephritis
- C. Acute pyelonephritis
- D. Glomerulonephritis
- E. Nephrosclerosis

90) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

Autopsy of a 50-year-old male who had tuberculosis revealed a dense gray-white nidus in form of a nodule 2 cm in diameter in the subpleural portion of the upper right lobe. The pleura in this region was thickened, in the pleural cavity there was a small amount of serous hemorrhagic fluid. Histological study of the region revealed some glandular structures with signs of cellular atypia and abnormal mitoses, which were found within the fibrous connective tissue. What other pathology had developed in the lungs?

- A. Adenocarcinoma
- B. Squamous cell carcinoma
- C. Adenoma
- D. Fibrosarcoma
- E. Fibroma

91) krok 2020

DISCIPLINE

TOPIC: Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases.

On the 24th day since the onset of disease, a male patient diagnosed with typhoid fever and undergoing treatment in an infectious diseases hospital has suddenly developed clinical presentations of acute abdomen leading to the death of the patient. During autopsy peritonitis has been revealed, with numerous ulcers covering the colon mucosa and reaching as deep as muscular and, in places, serous tunic. The ulcers have smooth edges and even floor. The intestinal wall is perforated. What stage of typhoid fever has the lethal complication arisen at?

- A. Clean ulcer
- B. Medullary swelling
- C. Necrosis
- D. Dirty ulcer
- E. Regeneration

92) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A 30-year-old patient has dyspnea fits, mostly at night. He has been diagnosed with bronchial asthma. What type of allergic reaction according to the Gell-Coombs classification is most likely in this case?

- A. Anaphylactic
- B. Cytotoxic
- C. Stimulating
- D. Immune complex
- E. Delayed-type hypersensitivity

93) krok 2020

DISCIPLINE

TOPIC: Hypertension and arteriolosclerosis. Hypertension and symptomatic hypertension.

Autopsy has revealed shrunken kidneys weighing 50 mg, with fine-grained surface and uniformly thinned substance. Microscopic investigation has shown the thickening of arteriole walls due to accumulation of homogeneous anhisto pink-coloured masses in them. Glomerules were undersized, sclerotic, with atrophied tubules. What disease are these changes characteristic of?

- A.** Essential hypertension
- B.** Pyelonephritis with kidney shrinkage
- C.** Renal amyloidosis
- D.** Acute glomerulonephritis
- E.** Membranous nephropathy

94) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

Histological examination of biopsy samples taken from the thickened edges of a gastric ulcer revealed small clusters of small, markedly atypical hyperchromatic epithelial cells that were localized in the overdeveloped stroma. Specify the tumor:

- A.** Scirrhous undifferentiated carcinoma
- B.** Medullary carcinoma
- C.** Adenocarcinoma
- D.** Undifferentiated sarcoma
- E.** Adenoma

95) krok 2020

DISCIPLINE

TOPIC: Processes of adaptation and compensation.

A 10-year-old child was found to have a congenital hypoplasia of the left kidney. Ultrasound examination revealed that the right kidney was markedly enlarged and had regular shape. No functional disorders were revealed. Specify the process that developed in the right kidney:

- A.** Vicarious hypertrophy
- B.** Working hypertrophy
- C.** Hypertrophic growth
- D.** Pseudohypertrophy
- E.** Metaplasia

96) krok 2020

DISCIPLINE

TOPIC: Diseases of the female and male reproductive system.

A 35-year-old female patient has undergone biopsy of the breast nodules. Histological examination has revealed enhanced proliferation of the small duct and acini epithelial cells,

accompanied by the formation of glandular structures of various shapes and sizes, which were located in the fibrous stroma. What is the most likely diagnosis?

- A. Fibroadenoma
- B. Adenocarcinoma
- C. Cystic breast
- D. Invasive ductal carcinoma
- E. Mastitis

97) krok 2020

DISCIPLINE

TOPIC: Children infections.

A 7-year-old boy got ill with diphtheria. On the third day he died of asphyxiation. At autopsy the mucosa of the larynx, trachea and bronchi had thickened, edematous, lustreless appearance and was covered with gray films which could be easily removed. Specify the type of laryngeal inflammation:

- A. Croupous
- B. Diphtheritic
- C. Purulent
- D. Catarrhal
- E. Intermediate

98) krok 2020

DISCIPLINE

TOPIC: Atherosclerosis and arteriosclerosis. Coronary heart disease.

Microscopy of the coronary artery of a dead 53-year-old patient revealed luminal occlusion due to a fibrous plaque with some lipids. The most likely form of atherosclerosis in this case is:

- A. Liposclerosis
- B. Lipidosis
- C. Prelipid stage
- D. Atheromatosis
- E. Ulceration

99) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

Examination of an 18-year-old girl revealed the following features: hypoplasia of the ovaries, broad shoulders, narrow pelvis, shortening of the lower extremities, "sphinx neck". Mental development is normal. The girl was diagnosed with Turner's syndrome. What kind of chromosome abnormality is it?

- A. Monosomy X
- B. Trisomy X
- C. Trisomy 13

- D. Trisomy 18**
- E. Nullisomy X**

100) krok 2020

DISCIPLINE

TOPIC: For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

A 38-year-old female patient complains of general weakness, cardiac pain, increased appetite, no menstruation. Objectively: the height is 166 cm, weight kg, the patient has moon-shaped face, subcutaneous fat is deposited mainly in the upper body, torso and hips. There are also blood-red streaks. Ps- 62/min, AP-160/105 mm Hg. Which of the following diseases is the described pattern of obesity most typical for?

- A. Cushing pituitary basophilism**
- B. Alimentary obesity**
- C. Myxedema**
- D. Insulinoma**
- E. Babinski-Frohlich syndrome**

101) krok 2020

DISCIPLINE

TOPIC: The metabolic disorders and metabolism. The morphology of abnormal accumulation of endogenous and exogenous pigments. The morphology of disorders of mineral metabolism.

A patient with jaundice has high total bilirubin that is mainly indirect (unconjugated), high concentration of stercobilin in the stool and urine. The level of direct (conjugated) bilirubin in the blood plasma is normal. What kind of jaundice can you think of?

- A. Hemolytic**
- B. Parenchymal (hepatic)**
- C. Mechanical**
- D. Neonatal jaundice**
- E. Gilbert's disease**

102) krok 2020

DISCIPLINE

TOPIC: Hemodynamie.

At autopsy the occipital lobe of brain was found to have a cavity 2,5x1,5 cm large filled with a transparent liquid. The cavity had smooth brownish walls. What process had developed in the brain?

- A. Cyst on the site of a hemorrhage**
- B. Softening of the cerebrocortical grey matter**
- C. Brain abscess**
- D. Paracephalia**

E.A cyst on the site of the softening of the cerebrocortical grey matter

103) krok 2020

DISCIPLINE

TOPIC: Proliferative inflammation. Specific inflammation. Granulomatosis.

Study of the biopsy material revealed a granuloma consisting of lymphocytes, plasma cells, macrophages with foamy cytoplasm (Mikulicz cells), many hyaline globules. What disease can you think of?

- A.** Rhinoscleroma
- B.** Leprosy
- C.** Syphilis
- D.** Tuberculosis
- E.** Actinomycosis

104) krok 2020

DISCIPLINE

TOPIC: Atherosclerosis and arteriosclerosis. Coronary heart disease.

Autopsy of a 78-year-old patient revealed that retroperitoneal tissue was soaked with blood, the abdominal aorta had a sacciform protrusion including a defect with irregular edges. The wall of the aorta was here and there of stone-like density. This is the complication of the following disease:

- A.** Atherosclerosis
- B.** Essential hypertension
- C.** Systemic vasculitis
- D.** Visceral syphilis
- E.** Marfan syndrome

105) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

14 days after quinsy a 15-year-old child presented with morning facial swelling, high blood pressure, "meat slops"urine. Immunohistological study of a renal biopsy sample revealed deposition of immune complexes on the basement membranes of the capillaries and in the glomerular mesangium. What disease developed in the patient?

- A.** Acute glomerulonephritis
- B.** Acute interstitial nephritis
- C.** Lipoid nephrosis
- D.** Acute pyelonephritis
- E.** Necrotizing nephrosis

106) krok 2020

DISCIPLINE

TOPIC: Children infections.

A diseased child has a high fever, sore throat, swelling of submandibular lymph nodes. Objectively: pharyngeal mucosa is edematous, moderately hyperemic, the tonsils are enlarged, covered with grayish membrane tightly adhering to the tissues above. Attempts to remove the membrane produce the bleeding defects. What disease are these presentations typical for?

- A. Diphtheria
- B. Catarrhal tonsillitis
- C. Scarlet fever
- D. Meningococcal disease
- E. Measles

107) krok 2020

DISCIPLINE

TOPIC: Morphology of reversible and irreversible damage of cells and tissues. Extracellular accumulation of proteins, carbohydrates and lipids.

Examination of the removed stomach revealed a deep roundish defect with regular edges at the lesser curvature of the antrum. The defect reached the muscular tunic and was 1,5 cm in diameter. Within the defect floor there was a translucent dense area resembling of a hyaline cartilage. What process had developed in the floor of the stomach defect?

- A. Local hyalinosis
- B. Amyloidosis
- C. Mucoid swelling
- D. Fibrinoid alterations
- E. General hyalinosis

108) krok 2020

DISCIPLINE

TOPIC: Sepsis. Syphilis.

A patient underwent biopsy of the soft palate arches for a suspected tumor (macroscopy revealed an ulcer with a dense floor). Study of the biopsy material revealed mucosal necrosis with infiltration of lymphocytes, epithelioid cells, plasma cells, single neutrophils in the submucosa. There were also apparent signs of endovasculitis and perivasculitis. The described changes are typical for:

- A. Primary syphilis
- B. Aphthous stomatitis
- C. Ulcerative stomatitis
- D. Necrotizing ulcerative Vincent stomatitis
- E. Pharyngeal diphtheria

109) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

Healthy parents with unremarkable family history have the child with multiple developmental defects. Cytogenetic analysis revealed the trisomy 13 in the somatic cells (Patau syndrome). What phenomenon has caused the defects?

- A. Abnormal gametogenesis
- B. Somatic mutation
- C. Recessive mutation
- D. Dominant mutation
- E. Chromosomal mutation

110) krok 2020

DISCIPLINE

TOPIC: Systemic connective tissue disease with autoimmunization.

A patient died from progressive heart failure. Autopsy revealed that the heart was enlarged in diameter, flabby. The muscle section exhibited irregular blood supply. Histological study of myocardium revealed hyperemia, the stroma was found to have lymphohistiocytic infiltrates with degeneration of cardiomyocytes. The revealed morphological changes are indicative of:

- A. Non-purulent interstitial myocarditis
- B. Venous plethora
- C. Cardiomyoliposis
- D. Cardiosclerosis
- E. Myocardial infarction

111) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

A male patient has been diagnosed with acute poststreptococcal glomerulonephritis. It is most likely that the lesion of the basement membrane of renal corpuscles was caused by the following allergic reaction:

- A. Immune complex
- B. Anaphylactic
- C. Cytotoxic
- D. Delayed
- E. Stimulating

112) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

Histological examination of the removed skin neoplasm revealed clusters and cords of atypical cells of stratified squamous epithelium, growing into the underlying tissue. What diagnosis can be assumed?

- A. Non-keratinizing squamous cell carcinoma
- B. Keratinizing squamous cell carcinoma

- C. Carcinoma in situ
- D. Papilloma
- E. Adenoma

113) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors of the nervous tissue. Features of tumours of the Central nervous system.

Autopsy of a 62-year-old woman revealed a dense well-circumscribed node of 6 cm in diameter in the cranial cavity. The node was attached to the dura mater and histologically consisted of clusters and microconcentric structures of endothelial cells, psammoma bodies. What kind of tumor was found at autopsy?

- A. Meningioma
- B. Glioblastoma
- C. Medulloblastoma
- D. Melanoma
- E. Cancer metastasis

114) krok 2020

DISCIPLINE

TOPIC: Violation of hemostasis. Thrombosis, disseminated intravascular coagulation. Embolism.

During the intravenous transfusion of the saline the patient's condition deteriorated dramatically, and the patient died from asphyxiation. Autopsy revealed acute venous congestion of internal organs with the dramatic right heart dilatation. When the right ventricle was punctured underwater, the bubbles escaped. What pathological process occurred in the patient?

- A. Air embolism
- B. Gaseous embolism
- C. Adipose embolism
- D. Tissue embolism
- E. Thromboembolism

115) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from melaniebrady tissue.

A 65-year-old male suddenly lost the vision in one eye due to the retinal detachment. The patient underwent enucleation. Histological examination of the removed eye retina and choroid revealed clusters of atypical cells with marked polymorphism of cells and nuclei, with a moderate number of mitoses including the pathological ones. The cell cytoplasm and intercellular medium contained brown pigment giving a positive DOPA reaction. Perls'

reaction was negative. What is the most likely diagnosis?

- A. Melanoma
- B. Pigmented mole
- C. Hemorrhage
- D. Cysticercosis
- E. Wilson's disease

116) krok 2020

DISCIPLINE

TOPIC: Systemic connective tissue disease with autoimmunization.

Microscopy of the myocardium of a patient who had died from heart failure revealed foci of fibrinoid necrosis located diffusely in the interstitial stroma, and often around the vessels. Such foci were surrounded by lymphocytes, macrophages, histiocytes. Pericardium was found to have signs of serofibrinous pericarditis. What is the most likely diagnosis?

- A. Rheumatic heart disease
- B. Myocardial infarction
- C. Cardiomyopathy
- D. Cardiosclerosis
- E. -

117) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

10 days after having quinsy caused by beta-hemolytic streptococcus a 6-year-old child exhibited symptoms of glomerulonephritis. What mechanism of glomerular lesion is most likely in this case?

- A. Immunocomplex
- B. Cellular cytotoxicity
- C. Anaphylaxis
- D. Atopy
- E. Antibody-dependent cell-mediated cytotoxicity

118) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A 22-year-old woman ate some seafood. 5 hours later the trunk and the distal parts of limbs got covered with small itchy papules which were partially fused together. After one day, the rash disappeared spontaneously. Specify the hypersensitivity mechanism underlying these changes:

- A. Atopy (local anaphylaxis)
- B. Systemic anaphylaxis
- C. Cellular cytotoxicity
- D. Immune complex hypersensitivity
- E. Antibody-dependent cell-mediated cytotoxicity

119) krok 2020

DISCIPLINE

TOPIC: Regeneration and reparation. Sclerosis.

As a result of a mechanical injury an over 10 cm long portion of a peripheral nerve was damaged. This led to the impairment of the upper limb activity. The patient was offered nerve transplantation. What glial cells will participate in regeneration and provide the trophism of the injured limb?

- A. Schwann cells
- B. Fibrous cells
- C. Protoplasmic cells
- D. Microglia
- E. Ependymal cells

120) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium. Diseases of the female and male reproductive system.

A 35-year-old female patient underwent biopsy of the breast nodules.

Histological examination revealed enhanced proliferation of the small duct epithelial cells and acini, accompanied by the formation of glandular structures of various shapes and sizes, which were located in the fibrous stroma. What is the most likely diagnosis?

- A. Fibroadenoma
- B. Adenocarcinoma
- C. Cystic breast
- D. Invasive ductal carcinoma
- E. Mastitis

121) krok 2020

DISCIPLINE

TOPIC: Diseases of the respiratory system.

Microscopy of the bronchial wall revealed atrophy of the mucosa, metaplastic change from columnar to squamous epithelium, an increase in the number of goblet cells, diffuse infiltration of the bronchial wall with lymphoplasmacytic elements with a large number of neutrophilic granulocytes, pronounced sclerosis.

Specify the morphological form of bronchitis:

- A. Chronic purulent bronchitis
- B. Acute bronchitis

- C. Polypoid chronic bronchitis
- D. Acute purulent bronchitis
- E. Chronic bronchitis

122) krok 2020

DISCIPLINE

TOPIC: Regeneration and reparation. Sclerosis.

Histological examination of the biopsy material obtained from the lower third of the esophagus of a 57-year-old male with the symptoms of continuous reflux revealed the change of the stratified squamous epithelium to the singlelayer columnar glandular epithelium with signs of mucus production. Specify the pathological process in the mucous membrane:

- A. Metaplasia
- B. Hyperplasia
- C. Hypertrophy
- D. Organization
- E. Regeneration

123) krok 2020

DISCIPLINE

TOPIC: For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

A female patient complains of vision impairment. On examination she was found to have obesity, fasting hyperglycemia. What complication of diabetes can cause vision impairment?

- A. Microangiopathy
- B. Macroangiopathy
- C. Atherosclerosis
- D. Neuropathy
- E. Glomerulopathy

124) krok 2020

DISCIPLINE

TOPIC: Morphology of reversible and irreversible damage of cells and tissues. Extracellular accumulation of proteins, carbohydrates and lipids.

Autopsy of a 58 year old man revealed that bicuspid valve was deformed, thickened and unclosed. Microscopically: foci of collagen fibrilla are eosinophilic, react positively to fibrin. The most probably it is:

- A. Fibrinoid swelling
- B. Fibrinous inflammation
- C. Muroid swelling
- D. Hyalinosis
- E. Amyloidosis

125) krok 2020

DISCIPLINE

TOPIC: Processes of adaptation and compensation.

Chronic inflammation and transformation of the one-layer ciliated epithelium into multiple-layers flat epithelium was revealed in the thickened mucous membrane of the bronchus bioptate of the patient with smoke abuse. Which of the processes is the most likely?

- A.** Metaplasia
- B.** Hyperplasia of the epithelium
- C.** Squamous cancer
- D.** Leucoplacia
- E.** Epithelium hypertrophy

126) krok 2020

DISCIPLINE

TOPIC: Leukemias (leukemia) and lymphomas.

Microscopic examination of the enlarged neck gland of a 14 year old girl revealed destruction of the tissue structure of the node, absence of the lymph follicles, sclerotic areas and necrosis foci, cell constitution of the node is polymorphous, lymphocytes, eosinophiles, big atypical cells with multilobular nuclei (Beresovsky-Sternberg cells) and mononuclear cells of the large size are present. What is the most likely diagnosis?

- A.** Lymphogranulomatosis
- B.** Acute lympholeucosis
- C.** Chronic lympholeucosis
- D.** Berkitt's lymphoma
- E.** Fungoid mycosis

127) krok 2020

DISCIPLINE

TOPIC: For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

A child has abnormal formation of tooth enamel and dentin as a result of low concentration of calcium ions in blood. Such abnormalities might be caused by deficiency of the following hormone:

- A.** Parathormone
- B.** Thyrocalcitonin
- C.** Thyroxin
- D.** Somatotropic hormone
- E.** Triiodothyronine

128) krok 2020

DISCIPLINE

TOPIC: Leukemias (leukemia) and lymphomas.

A 62 year old woman complains of frequent pain attacks in the area of her chest and backbone, rib fractures. Her doctor suspected myeloma (plasmocytoma). What of the following laboratory characteristics will be of the greatest diagnostic importance?

- A. Paraproteinemia
- B. Hyperalbuminemia
- C. Proteinuria
- D. Hypoglobulinemia
- E. Hypoproteinemia

129) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

A patient with a history of chronic glomerulonephritis presents with azotemia, oliguria, hypo- and isosthenuria, proteinuria. What is the leading factor in the pathogenesis of these symptoms development under chronic renal failure?

- A. Mass decrease of active nephrons
- B. Intensification of glomerular filtration
- C. Tubular hyosecretion
- D. Disturbed permeability of glomerular membranes
- E. Intensification of sodium reabsorption

130) krok 2020

DISCIPLINE

TOPIC: Cerebro - vascular diseases. Atherosclerosis and arteriosclerosis. Coronary heart disease.

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. Ischemic stroke
- B. Multifocal tumor growth with cystic degeneration
- C. Multiple foci of fresh and old cerebral hemorrhage
- D. Focal encephalitis
- E. Senile encephalopathy

131) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

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

- A. Necrotic nephrosis
- B. Acute pyelonephritis
- C. Acute glomerulonephritis

D. Acute tubular-interstitial nephritis

E. Lipoid nephrosis

132) krok 2020

DISCIPLINE

TOPIC: For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

A 44 year old woman complains of general weakness, heart pain, significant increase of body weight. Objectively: moon face, hirsutism, AP is 165/100 mm Hg, height - 164 cm, weight - 103 kg; the fat is mostly accumulated on her neck, thoracic girdle, belly. What is the main pathogenetic mechanism of obesity?

A. Increased production of glucocorticoids

B. Reduced production of thyroid hormones

C. Increased insulin production

D. Reduced glucagon production

E. Increased mineralocorticoid production

133) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A man with a long-term history of bronchial asthma died from asphyxia. Histological examination of his lungs revealed that the lumens of bronchioles and minor bronchi contained a lot of mucus with some eosinophils. There was also sclerosis of interalveolar septa, dilatation of alveole lumens. What mechanism accounts for the development of hypersensitivity reaction?

A. Reagine reaction

B. Cytotoxic reaction

C. Immune complex reaction

D. Lymphocytemediated cytolysis

E. Granulomatosis

134) krok 2020

DISCIPLINE

TOPIC: Diseases of the female and male reproductive system.

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. Glandular hyperplasia of endometrium

B. Acute endometritis

C. Leiomyoma

D. Cystic mole

E. Placental polyp

135) krok 2020

DISCIPLINE

TOPIC Circulatory disorders: hyperemia, ischemia, infarction, hemorrhage, hemorrhage, stasis, plasturgie. Shock. Violation of lymph circulation.

A 63 year old male patient who had been suffering from chronic diffuse obstructive disease, pulmonary emphysema, for 15 years died from cardiac insufficiency. Autopsy revealed nutmeg liver cirrhosis, cyanotic induration of kidneys and spleen, ascites, edemata of lower limbs. These changes of internal organs are typical for the following disease:

- A.** Chronic right-ventricular insufficiency
- B.** Acute right-ventricular insufficiency
- C.** Chronic left-ventricular insufficiency
- D.** Acute left-ventricular insufficiency
- E.** General cardiac insufficiency

136) krok 2020

DISCIPLINE

TOPIC Damage and death of cells and tissues. Necrosis and apoptosis. Pathological anatomy organ failure. Foundations of thanatology. Death, definition, signs of death.

A 38 year old man died all of a sudden. Autopsy revealed myocardial infarction in the posterior wall of the left ventricle. What are the most likely alterations in mycardiocyte structure that can be revealed microscopically in the infarction focus?

- A.** Karyolysis
- B.** Adipose degeneration
- C.** Carbohydrate degeneration
- D.** Calcification
- E.** Protein degeneration

137) krok 2020

DISCIPLINE

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138) krok 2020

DISCIPLINE

TOPIC Circulatory disorders: hyperemia, ischemia, infarction, hemorrhage, hemorrhage, stasis, plasturgie. Shock. Violation of lymph circulation.

A 42 year old patient complains of pain in the epigastral area, vomiting; vomit masses have the colour of "coffee-grounds", the patient has also melena. Anamnesis records gastric ulcer. Blood formula: erythrocytes - $2,8 \cdot 10^{12}/l$, leukocytes - $8 \cdot 10^9/l$, Hb- 90 g/l. What complication is it?

- A.** Haemorrhage
- B.** Penetration
- C.** Perforation
- D.** Canceration
- E.** Pyloric stenosis

139) krok 2020

DISCIPLINE

TOPIC Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

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 IV hypersensitivity reaction
- B.** Arthus phenomenon
- C.** Seroreaction
- D.** Atopic reaction
- E.** Type II hypersensitivity reaction

140) krok 2020

DISCIPLINE

TOPIC Tuberculosis

Autopsy of a 17 year old girl who died from pulmonary failure revealed a small area of caseous necrosis in the inferior lobe of the right lung, and occurrences of caseous necrosis in the bronchopulmonary, bronchial and bifurcational lymph nodes. What is the most probable postmortem diagnosis?

- A.** Primary tuberculosis
- B.** Hematogenous progression of primary tuberculosis
- C.** Hematogenous tuberculosis with predominant lung affection
- D.** Tuberculoma
- E.** Caseous pneumonia under secondary tuberculosis

141) krok 2020

DISCIPLINE

TOPIC The General doctrine about the tumors. Morphological features of tumor tissues derived mesenchyme.

Examination of a 55 year old woman revealed under the skin of submandibular area a movable slowly growing pasty formation with distinct borders 1,0x0,7 cm large. Histological examination revealed lipocytes that form segments of different forms and sizes separated from each other by thin layers of connective tissue with vessels. What is the most probable diagnosis?

- A.** Lipoma
- B.** Fibroma
- C.** Angioma
- D.** Liposarcoma
- E.** Fibrosarcoma

142) krok 2020

DISCIPLINE

TOPIC Kidney Disease

A patient has been diagnosed with acute glomerulonephritis that developed after he had had streptococcal infection. It is most likely that the affection of basal glomerular membrane is caused by an allergic reaction of the following type:

- A.** Immune complex
- B.** Anaphylactic
- C.** Cytotoxic
- D.** Delayed
- E.** Stimulating

143) krok 2020

DISCIPLINE

TOPIC Nomenclature and morphological features of tumors from epithelium.

A 45 year old man consulted a doctor about a plaque-like formation on his neck. Histological examination of a skin biopate revealed clusters of round and oval tumour cells with a narrow border of basophilic cytoplasm resembling of cells of basal epidermal layer. What tumour is it?

- A.** Basal cell carcinoma
- B.** Epidermal cancer
- C.** Hydroadenoma
- D.** Trichoepithelioma
- E.** Syringoadenoma

144) krok 2020

DISCIPLINE

TOPIC Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases.

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. Dysentery
- B. Typhoid fever
- C. Salmonellosis
- D. Nonspecific ulcerous colitis
- E. Yersiniosis

145) krok 2020

DISCIPLINE

TOPIC Atherosclerosis and arteriosclerosis. Coronary heart disease

Autopsy of a 75 year old patient who had been suffering from disseminated atherosclerosis and died under chronic cardiac failure revealed constriction and deformation of coronary arteries, tuberos intima whose section appeared to be white and petrosal. Specify the stage of atherosclerosis morphogenesis:

- A. Atherocalcinosis
- B. Lipoidosis
- C. Liposclerosis
- D. Bilipid
- E. Atheromatosis

146) krok 2020

DISCIPLINE

TOPIC Diseases of the respiratory system.

Examination of a bronchial tissue sample revealed atrophy of mucous membrane, cystic degeneration of glands, focal metaplastic changes of lining prismatic epithelial cells into multilayer squamous cells; increase in goblet cell number; in some parts of bronchial wall and especially in the mucous membrane there was marked cellular inflammatory infiltration and growth of granulation tissue bulging into the bronchial lumen in form of a polyp. What is the most likely diagnosis?

- A. Chronic bronchitis
- B. Lobar pneumonia
- C. Acute bronchitis
- D. Bronchopneumonia
- E. Interstitial pneumonia

147) krok 2020

DISCIPLINE

TOPIC Kidney Disease

Acute renal impairment caused death of a bleeding patient. Autopsy revealed enlarged kidneys with a broad pale pink cortical layer expressively demarcated from dark red renal

pyramids. Macroscopic examination revealed lack of epithelial nuclei of convoluted tubules, tubulorrhexis, phlebostasis. The cell nuclei of choroid glomus and straight tubules were present. What pathology is it?

- A. Necronephrosis
- B. Infarction
- C. Glomerulonephritis
- D. Pyelonephritis
- E. Nephrosis

148) krok 2020

DISCIPLINE

TOPIC For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

A 50 year old patient has been taking treatment thrice for the last 6 months because of fractures caused by domestic accidents. Microscopical examination of bony tissue revealed foci of lacunar resolution, giant-cell granulomas in the tumour-like formations, cysts. Bony tissue was substituted by fibrous connective tissue. Examination revealed also adenoma of parathyroid gland and hypercalcemia. What is the most probable diagnosis?

- A. Parathyroid osteodystrophy
- B. Myelomatosis
- C. Osteomyelitis
- D. Osteopetrosis
- E. Paget's disease

149) krok 2020

DISCIPLINE

TOPIC Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

Examination of a child who frequently suffers from infectious diseases revealed that IgG concentration in blood serum was 10 times less than normal, IgA and IgM concentration was also significantly reduced. Analysis showed also lack of B-lymphocytes and plasmocytes. What disease are these symptoms typical for?

- A. Bruton's disease
- B. Swiss-type agammaglobulinemia
- C. Dysimmunoglobulinemia
- D. Louis-Bar syndrome
- E. Di George syndrome

150) krok 2020

DISCIPLINE

TOPIC Processes of adaptation and compensation

A patient who abuses smoking has chronic bronchitis. Biopsy of his primary bronchus revealed multilayer pavement epithelium. What pathological process was revealed in the

bronchus?

- A. Metaplasia
- B. Physiological regeneration
- C. Reparative regeneration
- D. Hyperplasia
- E. Dysplasia

151) krok 2020

DISCIPLINE

TOPIC Processes of adaptation and compensation

In course of a conditional experiment the development of mesenchyma cells was completely inhibited. Development of the following muscular tissue will be disturbed:

- A. Smooth muscular tissue
- B. Neural muscular tissue
- C. Epidermal muscular tissue
- D. Cardiac muscular tissue
- E. Skeletal muscular tissue

152) krok 2020

DISCIPLINE

TOPIC Viral airborne infection. HIV infection. Rabies.

Quite often the cause of secondary immunodeficiency is an infection involvement, when the causative agents propagate directly in the cells of immune system and destroy it. The following diseases are characterized by:

- A. Infectious mononucleosis, AIDS
- B. Tuberculosis, mycobacteriosis
- C. Poliomyelitis, type A hepatitis
- D. Dysentery, cholera
- E. Q-febris, epidemic typhus

153) krok 2020

DISCIPLINE

TOPIC Sepsis. Syphilis.

Extensive thromboembolic infarction of the left cerebral hemispheres, large septic spleen, immunocomplex glomerulonephritis, ulcers on the edges of the aortic valves, covered with polypous thrombus with colonies of staphylococcus were revealed on autopsy of the young man who died in coma. What disease caused cerebral thromboemboly?

- A. Septic bacterial endocarditis
- B. Septicemia
- C. Acute rheumatic valvulitis
- D. Septicopyemia
- E. Rheumatic thromboendocarditis

154) krok 2020

DISCIPLINE

TOPIC General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

Autopsy of a patient who suffered from croupous pneumonia and died from pneumococcal sepsis revealed 900 ml of turbid greenish-yellow liquid in the right pleural cavity. Pleural leaves are dull, plephoric. Name the clinicopathological form of inflammation in the pleural cavity:

- A.** Empyema
- B.** Fibrinous inflammation
- C.** Phlegmon
- D.** Chronic abscess
- E.** Acute abscess

155) krok 2020

DISCIPLINE

TOPIC The subject and objectives of pathomorphology. Methods of pathological research. The main stages of development of pathology. the accumulation of proteins, carbohydrates and lipids. Morphology of reversible and irreversible damage of cells and tissues. Intracellular accumulation of proteins, carbohydrates and lipids.

Autopsy of a man who died from chronic cardiovascular collapse revealed "tiger heart". Sideways of endocardium a yellowish-white banding can be seen; myocardium is dull, dark-yellow. What process caused this pathology?

- A.** Fatty parenchymatous degeneration
- B.** Carbohydrate degeneration
- C.** Hyaline degeneration
- D.** Fatty vascular-stromal degeneration
- E.** Amyloidosis

156) krok 2020

DISCIPLINE

TOPIC Sepsis. Syphilis.

A 38-year-old man died in the attempt of lifting weight. He had collaptoid state. Autopsy revealed an extensive aneurism rupture of thoracic aorta. He suffered from visceral syphilis during his lifetime. What pathological process caused weakness of aortic wall, its dilatation and rupture?

- A.** Vanishing of elastic fibers
- B.** Vanishing of collagen fibers
- C.** Muscle layer atrophy
- D.** Intima changes by shagreen leather type
- E.** Vascularization

157) krok 2020

DISCIPLINE

TOPIC Circulatory disorders: hyperemia, ischemia, infarction, hemorrhage, hemorrhage, stasis, plasturgie. Shock. Violation of lymph circulation.

Autopsy of a 73-year-old man who had been suffering from the coronary heart disease along with cardiac insufficiency for a long time revealed: nutmeg liver, brown induration of lungs, cyanotic induration of kidneys and spleen. What kind of circulation disorder was the cause of such effects?

- A.** General chronic venous congestion
- B.** Arterial hyperaemia
- C.** General acute venous congestion
- D.** Acute anaemia
- E.** Chronic anaemia

158) krok 2020

DISCIPLINE

TOPIC Leukemias (leukemia) and lymphomas

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.** Lymphoid leukosis
- B.** Lymphogranulomatosis
- C.** Lymphosarcoma
- D.** Myeloid leukosis
- E.** Multiple myeloma

159) krok 2020

DISCIPLINE

TOPIC Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases. Viral airborne infection. HIV infection. Rabies.

r 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.** Anthrax

- B.** Tularemia
- C.** Brucellosis
- D.** Plaque
- E.** Cholera

160) krok 2020

DISCIPLINE

TOPIC Sepsis. Syphilis.

A man with a wound of his limb that had been suppurating for a long time died from intoxication. Autopsy revealed extreme emaciation, dehydration, brown atrophy of liver, myocardium, spleen and cross-striated muscles as well as renal amyloidosis. What diagnosis corresponds with the described presentations?

- A.** Chroniosepsis
- B.** Septicopyemia
- C.** Septicemia
- D.** Chernogubov's syndrome
- E.** Brucellosis

161) krok 2020

DISCIPLINE

TOPIC Diseases of the respiratory system.

Pulmonary examination of a patient who has worked as a stone grinder for 9 years revealed small dense roundish nodules consisting of connective tissue. The nodules were found to have peripheral macrophages. Such pulmonary alterations are indicative of the following disease:

- A.** Silicosis
- B.** Acute pneumonia
- C.** Multiple bronchiectasis
- D.** Chronic bronchitis
- E.** Bronchial asthma

162) krok 2020

DISCIPLINE

TOPIC Diseases of the respiratory system.

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.** Acute purulent bronchopneumonia
- B.** Acute bronchitis
- C.** Croupous pneumonia
- D.** Intermittent pneumonia

E. Acute serous bronchopneumonia

163) krok 2020

DISCIPLINE

TOPIC

Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases.

Viral airborne infection. HIV infection. Rabies.

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.** Meningococcal infection
- B.** Scarlet fever
- C.** Diphtheria
- D.** Measles
- E.** Epidemic typhus

164) krok 2020

DISCIPLINE

TOPIC Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

Examination of a pregnant woman having Rh-negative blood revealed high level of antierythrocytic antibodies. For its reduction she was implanted with her husband's Rh-positive skin graft. The graft was rejected in two weeks. Its microscopic examination revealed circulatory disturbance, edema and cellular infiltration with lymphocytes, neutrophils and macrophages predominance. What is the most likely pathology?

- A.** Graft immunity
- B.** Immediate hypersensitivity
- C.** Delayed-type hypersensitivity
- D.** Granulomatous inflammation
- E.** Interstitial inflammation

165) krok 2020

DISCIPLINE

TOPIC Nomenclature and morphological features of tumors from melanocyte tissue

A 46-year-old man had a bulging dark macula on skin that caused no discomfort. With time it began to increase in size and became painful. It turned dark brown and there was a nodule on palpation. Histological examination of tissues revealed spindle and polymorphous cells with multiple mitoses. Their cytoplasm contained brown pigment. What tumour is it?

- A.** Melanoma
- B.** Basalioma

- C. Hemangioma
- D. Nevus
- E. –

166) krok 2020

DISCIPLINE

TOPIC Nomenclature and morphological features of tumors from epithelium.

Medical examination of a 20-year-old woman revealed a dense encapsulated node 1 cm in diameter that was palpated in the mammary gland. The postoperative biopsy revealed connective tissue overgrowth around the mammary ducts and glandular components of different diameter that didn't make lobules and bore no signs of cellular abnormality. What diagnosis will be made?

- A. Fibroadenoma
- B. Fibroma
- C. Metastatic cancer
- D. Adenoma
- E. Fibrocarcinoma

167) krok 2020

DISCIPLINE

TOPIC Systemic connective tissue disease with autoimmunization

A 38-year-old male patient has been ill with systemic lupus erythematosus for three years. He was diagnosed with diffuse renal affection accompanied by massive edemata and expressive proteinuria. What is the most likely cause of proteinuria development?

- A. Autoimmune renal affection
- B. Aseptic renal affection
- C. Ischemic renal affection
- D. Urinary bladder inflammation
- E. Urinary tracts inflammation

168) krok 2020

DISCIPLINE

TOPIC The metabolic disorders and metabolism. The morphology of abnormal accumulation of endogenous and exogenous pigments. The morphology of disorders of mineral metabolism.

A patient presents with icteritiousness of skin, scleras and mucous membranes. Blood plasma the total bilirubin is increased, stercobilin is increased in feces, urobilin is increased in urine. What type of jaundice is it?

- A. Haemolytic
- B. Gilbert's disease
- C. Parenchymatous
- D. Obturational

E. Cholestatic

169) krok 2020

DISCIPLINE

TOPIC Diseases of the respiratory system.

A patient with marked pneumofibrosis that developed after infiltrating pulmonary tuberculosis has been diagnosed with respiratory failure. What is its pathogenetic type?

- A. Restrictive**
- B. Obstructive**
- C. Dysregulatory**
- D. Reflex**
- E. Apneistic**

170) krok 2020

DISCIPLINE

TOPIC Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

During surgical manipulations a patient has been given novocaine injection for anesthesia. 10 minutes later the patient developed paleness, dyspnea, hypotension. What type of allergic reaction is it?

- A. Anaphylactic immune reaction**
- B. Cellulotoxic immune reaction**
- C. Aggregate immune reaction**
- D. Stimulating immune reaction**
- E. Cell-mediated immune reaction**

171) krok 2020

DISCIPLINE

TOPIC Diseases of the respiratory system.

A patient died from cardiopulmonary decompensation. Histological examination revealed diffused pulmonary affection along with interstitial edema, infiltration of tissue by lymphocytes, macrophages, plasmocytes; pulmonary fibrosis, panacinar emphysema. What is the most likely diagnosis?

- A. Fibrosing alveolitis**
- B. Chronic bronchitis**
- C. Bronchopneumonia**
- D. Pulmonary atelectasis**
- E. Bronchial asthma**

172) krok 2020

DISCIPLINE

TOPIC General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A 49-year-old patient with croupous pneumonia died from pneumococcal septicemia. Autopsy revealed up to 700 ml of turbid greenish-yellow foul-smelling liquid in the left pleural cavity. The pleural leaflets were dull and plethoric. What form of pleural inflammation is it?

- A. Empyema
- B. Chronic abscess
- C. Acute abscess
- D. Phlegmon
- E. Fibrinous inflammation

173) krok 2020

DISCIPLINE

TOPIC General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A 70-year-old male patient died from acute coronary insufficiency. He had knee joint swelling, gonycampsis and gonalgia during his lifetime. Pathomorphologic examination of the deformed joints and synovial membranes revealed membrane hyperaemia with multiple perivascular inflammatory infiltrations made by lymphocytes, plasmocytes and macrophagocytes. There was an accumulation of organized fibrin covering some areas of synovium membrane and looking like rice grains in the articular liquid. What is the most likely diagnosis?

- A. Atrophic arthritis
- B. Periarteritis nodosa
- C. Ankylosing spondylitis
- D. Tuberculous arthritis
- E. Deforming arthrosis

174) krok 2020

DISCIPLINE

TOPIC General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A pregnant woman was registered in an antenatal clinic and underwent complex examination for a number of infections. Blood serum contained *I gM* to the rubella virus. What is this result indicative of?

- A. Of primary infection
- B. Of a chronic process
- C. The woman is healthy
- D. Of exacerbation of a chronic disease
- E. Of recurring infection with rubella virus

175) krok 2020

DISCIPLINE

TOPIC tuberculosis

A patient with tuberculosis died from progressing cardiopulmonary decompensation. Autopsy in the region of the right lung apex revealed a cavity 5 cm in diameter communicating with lumen of a segmental bronchus. On the inside cavity walls are covered with caseous masses with epithelioid and Langhans cells beneath them. What morphological form of tuberculosis is it?

- A. Acute cavernous tuberculosis
- B. Tuberculoma
- C. Caseous pneumonia
- D. Infiltrative tuberculosis
- E. Acute focal tuberculosis

176) krok 2020

DISCIPLINE

TOPIC Circulatory disorders: hyperemia, ischemia, infarction, hemorrhage, hemorrhage, stasis, plasturgie. Shock. Violation of lymph circulation.

A 45-year-old woman has breast cancer. Her left arm has symptoms of lymphatic system insufficiency - limb edema, lymph node enlargement. What form of lymphatic circulation insufficiency is it?

- A. Mechanic insufficiency
- B. Dynamic insufficiency
- C. Resorption insufficiency
- D. Combined insufficiency
- E.-

177) krok 2020

DISCIPLINE

TOPIC Liver Disease

The liver puncture biopsy of a patient with hepatocellular insufficiency revealed hydropic and ballooning degeneration of hepatocytes, necrosis of certain cells, presence of Kaunsilmen's bodies. Portal and lobular stroma were infiltrated mostly with lymphocytes and macrophages as well as with a small number of polymorphonuclear lymphocytes. What is the most likely diagnosis?

- A. Acute viral hepatitis
- B. Chronic persistent hepatitis
- C. Chronic aggressive hepatitis
- D. Autoimmune hepatitis
- E. Alcoholic hepatitis

178) krok 2020

DISCIPLINE

TOPIC The General doctrine about the tumors. Morphological features of tumor tissues derived mesenchyme.

Examination of the anterior abdominal wall of a pregnant woman revealed a tumour like formation that arose on the spot of a tumour that was removed two years ago. The neoplasm was well-defined, dense, 2x1 cm large. Histological examination revealed that the tumour was composed of differentiated connective tissue with prevailing collagen fibres. What tumour might be suspected?

- A. Desmoid
- B. Lipoma
- C. Fibrosarcoma
- D. Hibernoma
- E. Leiomyoma

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179) krok 2020

DISCIPLINE

TOPIC Viral airborne infection. HIV infection. Rabies

Quite often the cause of secondary immunodeficiency is an infection involvement, when the causative agents propagate directly in the cells of immune system and destroy it. The following diseases are characterized by:

- A. Infectious mononucleosis, AIDS
- B. Tuberculosis, mycobacteriosis
- C. Poliomyelitis, type A hepatitis
- D. Dysentery, cholera
- E. Q-febris, epidemic typhus

180) krok 2020

DISCIPLINE

TOPIC The General doctrine about the tumors. Morphological features of tumor tissues derived mesenchyme.

Examination of a patient revealed a dense, movable skin tumour that is standing out distinctly from the surrounding tissues. Its section is found to be white and composed of fibrous tissue. Microscopic examination revealed interlacing collagen fibers and few cells. What tumour is it?

- A. Fibroma
- B. Myoma
- C. Histiocytoma
- D. Dermatofibroma
- E. Desmoid

181) krok 2020

DISCIPLINE

TOPIC Violation of hemostasis. Thrombosis, disseminated intravascular coagulation. Embolism

A 70-year-old patient suffers from atherosclerosis complicated by the lower limb thrombosis

that has caused gangrene on his left toes. What is the most likely cause of the thrombosis origin?

- A. Thrombocyte adhesion
- B. Prothrombinase activation
- C. Transformation of prothrombin into thrombin
- D. Transformation of Fibrinogen into Fibrin
- E. Impaired heparin synthesis

182) krok 2020

DISCIPLINE

TOPIC Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A female patient suffering from bronchial asthma had got a viral infection that provoked status asthmaticus with fatal outcome. Histological examination of lungs revealed spasm and edema of bronchioles, apparent infiltration of their walls with lymphocytes, eosinophils and other leukocytes; leukocyte degranulation. What mechanism of hypersensitivity underlies the described alterations?

- A. Reagin reaction
- B. Inflammatory
- C. Autoimmune
- D. Immune complex
- E. Immune cytolysis

183) krok 2020

DISCIPLINE

TOPIC Leukemias (leukemia) and lymphomas.

A 62-year-old female patient complains about frequent pains in the region of thorax and vertebral column, rib fractures. A physician suspected myelomatosis (plasmocytoma). Which of the following laboratory indices will be of the greatest diagnostic importance?

- A. Paraproteinemia
- B. Hyperalbuminemia
- C. Proteinuria
- D. Hypoglobulinemia
- E. Hypoproteinemia

184) krok 2020

DISCIPLINE

TOPIC Diseases of the respiratory system.

A patient was admitted to the hospital with an asphyxia attack provoked by a spasm of smooth muscles of the respiratory tracts. This attack was mainly caused by alterations in the following parts of the airways:

- A. Small bronchi
- B. Median bronchi

- C. Large bronchi
- D. Terminal bronchioles
- E. Respiratory part

185) krok 2020

DISCIPLINE

TOPIC Circulatory disorders: hyperemia, ischemia, infarction, hemorrhage, stasis, plasturgie. Shock. Violation of lymph circulation

While playing volleyball a sportsman jumped and then landed across the external edge of his foot. This caused acute pain in the talocrural articulation, active movements became limited, passive movements remained unlimited but painful. In the region of the external ankle a swelling appeared, the skin turned red and became warmer to the touch. What type of peripheral circulation disorder has developed in this case?

- A. Arterial hyperaemia
- B. Stasis
- C. Embolism
- D. Venous hyperaemia
- E. Thrombosis

186) krok 2020

DISCIPLINE

TOPIC Diseases of the respiratory system.

A 12-year-old adolescent suffering from bronchial asthma has a severe attack of asthma: he presents with marked expiratory dyspnea, skin pallor. What type of alveolar ventilation disorder is observed?

- A. Obstructive
- B. Restrictive
- C. Thoracodiaphragmatic
- D. Central
- E. Neuromuscular

187) krok 2020

DISCIPLINE

TOPIC For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

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. Itsenko-Cushing's syndrome
- B. Diabetes mellitus
- C. Acromegalia
- D. Pituitary nanism

E. Adiposogenital dystrophy

188) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

Colonoscopy of a patient with dysentery revealed that the mucous membrane of the large intestine was hyperemic, edematic, and its surface was covered with grey and-green layerings. What morphological form of dysenteric colitis is it?

- A. Fibrinous**
- B. Catarrhal**
- C. Ulcerous**
- D. Purulent**
- E. Necrotic**

189) krok 2020

DISCIPLINE

TOPIC: INFLAMATION

A man had worked in a coal mine for over 20 years. After his death autopsy revealed that his lungs were dense, grayish-black and had large areas of neogenic connective tissue containing a lot of microphages with black pigment in the cytoplasm. What is the most likely diagnosis?

- A. Anthracosis**
- B. Anthracosilicosis**
- C. Silicoanthracosis**
- D. Talcosis**
- E. Siderosis**

190) krok 2020

DISCIPLINE

TOPIC INFLAMATION

Autopsy of a man who died from sepsis revealed a phlegmonous inflammation in the femoral bone of lower extremity. The inflammation was seen in the bone marrow, haversian canals and periosteum. There were also multiple abscesses underneath the periosteum; the surrounding soft tissues of the thigh were also affected by the phlegmonous inflammation. What pathological process is it?

- A. Acute haematogenous osteomyelitis**
- B. Osteoporosis**
- C. Chronic haematogenous osteomyelitis**
- D. Osteopetrosis**
- E. –**

191) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

After the prior sensibilization an experimental animal was given a subcutaneous injection of an antigen. The place of injection exhibited a brinous inflammation with alteration of the vessel walls, basal substance and fibrous structures of the connective tissue in form of mucoid and Fibrinoid swelling and necrosis. What immunological reaction is it?

- A.** Immediate hypersensitivity
- B.** Delayed-type hypersensitivity
- C.** Reaction of transplantation immunity
- D.** Normergic reaction
- E.** Granulomatosis

192) krok 2020

DISCIPLINE

TOPIC: Diseases of the respiratory system.

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

- A.** Croupous pneumonia
- B.** Tuberculosis
- C.** Bronchopneumonia
- D.** Interstitial pneumonia
- E.** PneumoFibrosis

193) krok 2020

DISCIPLINE

TOPIC

In the pubertal period cells of the male sexual glands start producing the male sexual hormone testosterone that is responsible for formation of the secondary sexual characters. What cells of the male sexual glands produce this hormone?

- A.** Leydig cells
- B.** Sustenocytes
- C.** Sertoli's cells
- D.** Sustentacular cells
- E.** Spermatozoa

194) krok 2020

DISCIPLINE

TOPIC ENDOCRINE PATHOLOGY

Examination of a patient revealed overgrowth of facial bones and soft tissues, tongue enlargement, wide interdental spaces in the enlarged dental arch. What changes of the hormonal secretion are the most likely?

- A.** Hypersecretion of the somatotropic hormone
- B.** Hyposecretion of the somatotropic hormone

- C. Hypersecretion of insulin
- D. Hyposecretion of thyroxin
- E. Hyposecretion of insulin

195) krok 2020

DISCIPLINE

TOPIC: Morphology of reversible and irreversible damage of cells and tissues. Extracellular accumulation of proteins, carbohydrates and lipids.

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. Secondary amyloidosis
- B. Glomerulonephritis
- C. Chronic pyelonephritis
- D. Necrotic nephrosis
- E. –

196) krok 2020

DISCIPLINE

TOPIC: Systemic connective tissue disease with autoimmunization.

Autopsy of a 49-year-old woman who died from chronic renal insufficiency, revealed: kidneys were dense, reduced, multicoloured, with haemorrhagic areas. Microscopic examination revealed some hematoxylin bodies in the nuclei of the renal tubule epithelium; "wire-loop" thickening of the glomerular capillary basement membrane; here and there in the capillaries some hyaline thrombi and foci of fibrinoid necrosis were present. What is the most likely diagnosis?

- A. Systemic lupus erythematosus
- B. Rheumatism
- C. Arteriosclerotic pneumosclerosis
- D. Amyloidosis
- E. Atherosclerotic nephrosclerosis

197) krok 2020

DISCIPLINE

TOPIC: Diseases of the female and male reproductive system.

Preventive examination of a patient revealed an enlarged lymph node of metastatic origin on the medial wall of the left axillary crease. Specify the most likely localization of the primary tumour:

- A. Mammary gland
- B. Submandibular salivary gland
- C. Lung
- D. Stomach

E. Thyroid gland

198) krok 2020

DISCIPLINE

TOPIC VIRUS INFECTIONS

Autopsy of a man who died from influenza revealed that the heart was slightly enlarged and pastose. The surface of the incision of myocardium appeared to be pale, with specks. Microscopic examination revealed signs of parenchymatous adipose and hydropic degeneration, edematous stroma with scant lymphocytic and macrophage infiltration; plethoric vessels; perivascular petechial haemorrhages. What type of myocarditis is it?

- A. Serous diffuse**
- B. Interstitial proliferative**
- C. Serous focal**
- D. Purulent**
- E. Granulomatous**

199) krok 2020

DISCIPLINE

TOPIC: Diseases of the female and male reproductive system.

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. Pseudoerosion**
- B. True erosion**
- C. Endocervicitis**
- D. Glandular hyperplasia**
- E. Leukoplakia**

200) krok 2020

DISCIPLINE

TOPIC: The accumulation of proteins, carbohydrates and lipids. Morphology of reversible and irreversible damage of cells and tissues. Intracellular accumulation of proteins, carbohydrates and lipids.

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. Leukoplakia**
- C. Xerodermia**
- D. Erythroplakia**
- E. Dermatomyositis**

201) krok 2020

DISCIPLINE

TOPIC: The metabolic disorders and metabolism. The morphology of abnormal accumulation of endogenous and exogenous pigments. The morphology of disorders of mineral metabolism.

A patient presents with icteritiousness of skin, scleras and mucous membranes. Blood plasma the total bilirubin is increased, stercobilin is increased in feces, urobilin is increased in urine. What type of jaundice is it?

- A.** Haemolytic
- B.** Gilbert's disease
- C.** Parenchymatous
- D.** Obturational
- E.** Cholestatic

202) krok 2020

DISCIPLINE

TOPIC: Diseases of the esophagus, stomach and intestines.

A pathologyhistology 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 β accid, of grayishred 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 phlegmonous appendicitis
- B.** Acute gangrenous appendicitis
- C.** Acute superFIcial appendicitis
- D.** Acute simple appendicitis
- E.** Chronic appendicitis

203) krok 2020

DISCIPLINE

TOPIC: Proliferative inflammation. Specific inflammation. Granulomatosis.

A patient with severe course of respiratory viral infection presented with clinical signs of progressing heart failure that led to his death in the 2nd week of disease. Autopsy revealed that the heart cavities were signiFIcantly dilated, the heart was β abby. Histological examination of the myocardium revealed microvascular plethora and diffuse stroma inFIltration with lymphocytes and histiocytes. What is the most likely diagnosis?

- A.** Myocarditis
- B.** Stenocardia
- C.** Acute coronary insufficiency
- D.** Myocardial infarction
- E.** Cardiomyopathy

204) krok 2020

DISCIPLINE

TOPIC: Damage and death of cells and tissues. Necrosis and apoptosis. Pathological anatomy organ failure. Foundations of thanatology. Death, definition, signs of death.

A section of the left lung was found to have an area of dense red tissue. The area was cone-shaped, stood out distinctly from the healthy tissue, with its base directed to the pleura. The dissected tissue was granular, darkred. What is the most likely diagnosis?

- A.** Haemorrhagic infarction
- B.** Lung abscess
- C.** Lung gangrene
- D.** Primary tuberculous affection
- E.** Croupous pneumonia

205) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors of the nervous tissue. Features of tumours of the Central nervous system.

Examination of a young woman revealed a tumour up to 3 cm in diameter in form of a knot localized along the acoustic nerve. The tumour is homogenous, soft and elastic, of pink-and-white colour. Microscopically the tumour contains clusters of cells with oval nuclei. Fibrous cell clusters form regular structures made up by parallel rows of regularly oriented cells arranged in form of a palisade. Zones between the rows of cells are acellular and homogenous (Verocai bodies). What tumour is it?

- A.** Neurinoma
- B.** Malignant neurinoma
- C.** Ganglioneuroma
- D.** Neuroblastoma
- E.** Ganglioneuroblastoma

206) krok 2020

DISCIPLINE

TOPIC: The General doctrine about the tumors. Morphological features of tumor tissues derived mesenchyme.

Examination of the anterior abdominal wall of a pregnant woman revealed a tumour-like formation that arose on the spot of a tumour that was removed two years ago. The neoplasm was well-defined, dense, 2x1 cm large. Histological examination revealed that the tumour was composed of differentiated connective tissue with prevailing collagen fibres. What tumour might be suspected?

- A.** Desmoid
- B.** Lipoma
- C.** Fibrosarcoma
- D.** Hibernoma

E. Leiomyoma

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207) krok 2020

DISCIPLINE

TOPIC: Circulatory disorders: hyperemia, ischemia, infarction, hemorrhage, stasis, plasturgie. Shock. Violation of lymph circulation.

While playing volleyball a sportsman made a jump and landed on the outside edge of his foot. He felt acute pain in the talocrural joint, active movements are limited, passive movements are unlimited but painful. A bit later there appeared a swelling in the area of external ankle, the skin became red and warm. What type of peripheral circulation disturbance is the case?

- A.** Arterial hyperemia
- B.** Stasis
- C.** Embolism
- D.** Venous hyperemia
- E.** Thrombosis

208) krok 2020

DISCIPLINE

TOPIC: The metabolic disorders and metabolism. The morphology of abnormal accumulation of endogenous and exogenous pigments. The morphology of disorders of mineral metabolism.

A 65 year old man suffering from gout complains of kidney pain. Ultrasound examination revealed renal calculi. The most probable cause of calculi formation is the strengthened concentration of the following substance:

- A.** Uric acid
- B.** Cholesterol
- C.** Bilirubin
- D.** Urea
- E.** Cystine

209) krok 2020

DISCIPLINE

TOPIC: Practical skills

Autopsy of a man who had been working as a miner for many years and died from cardiopulmonary decompensation revealed that his lungs were airless, sclerosed, their apexes had emphysematous changes, the lung surface was greyish-black, the incised lung tissue was coal-black. What disease caused death?

- A.** Anthracosis
- B.** Silicosis
- C.** Talcosis
- D.** Asbestosis

E. Aluminosis

210) krok 2020

DISCIPLINE

TOPIC: Atherosclerosis and arteriosclerosis. Coronary heart disease.

Examination of coronary arteries revealed atherosclerotic calcified plaques closing vessel lumen by 1/3. The muscle has multiple whitish layers of connective tissue. What process was revealed in the myocardium?

- A. Diffusive cardiosclerosis**
- B. Tiger heart**
- C. Postinfarction cardiosclerosis**
- D. Myocarditis**
- E. Myocardium infarction**

211) krok 2020

DISCIPLINE

TOPIC: Proliferative inflammation. Specific inflammation. Granulomatosis.

Histological examination of a skin tissue sampling revealed granulomas consisting of macrophagal nodules with lymphocytes and plasmatic cells. There are also some big macrophages with fatty vacuoles containing causative agents of a disease packed up in form of spheres (Virchow's cells). Granulation tissue is well vascularized. What disease is this granuloma typical for?

- A. Lepra**
- B. Tuberculosis**
- C. Syphilis**
- D. Rhinoscleroma**
- E. Glanders**

212) krok 2020

DISCIPLINE

TOPIC: Proliferative inflammation. Specific inflammation. Granulomatosis.

A 40 year old man noticed a reddening and an edema of skin in the area of his neck that later developed into a small abscess. The incised focus is dense, yellowish-green. The pus contains white granules. Histological examination revealed drusen of a fungus, plasmatic and xanthome cells, macrophages. What type of mycosis is the most probable?

- A. Actinomycosis**
- B. Aspergillosis**
- C. Candidosis**
- D. Sporotrichosis**
- E. Coccidioidomycosis**

213) krok 2020

DISCIPLINE

TOPIC: Proliferative inflammation. Specific inflammation. Granulomatosis.

6 months after labour a woman had uterine hemorrhage. Gynaecological examination of uterine cavity revealed a dark-red tissue with multiple cavities resembling of a "sponge". Microscopic examination of a tumour revealed in blood lacunas atypic light epithelial Langhans cells and giant cells of syncytiotrophoblast. What tumour is it?

- A. Chorionepithelioma
- B. Squamous cell nonkeratinous carcinoma
- C. Adenocarcinoma
- D. Fibromyoma
- E. Cystic mole

214) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

48 hours after tuberculin test (Mantoux test) a child had a papule 10 mm in diameter on the spot of tuberculin injection. What hypersensitivity mechanism underlies these changes?

- A. Cellular cytotoxicity
- B. Anaphylaxy
- C. Antibody-dependent cytotoxicity
- D. Immunocomplex cytotoxicity
- E. Granulomatosis

215) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A 17 year old boy fell seriously ill, the body temperature rose up to 38, 5°C, there appeared cough, rhinitis, lacrimation, nasal discharges. What inflammation is it?

- A. Catarrhal
- B. Serous
- C. Fibrinous
- D. Purulent
- E. Hemorrhagic

216) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

A 30 year old woman has face edemata. Examination revealed proteinuria (5,87 g/l), hypoproteinemia, dysproteinemia, hyperlipidemia. What condition is the set of these symptoms typical for?

- A. Nephrotic syndrome

- B.** Nephritic syndrome
- C.** Chronic pyelonephritis
- D.** Acute renal failure
- E.** Chronic renal failure

217) krok 2020

DISCIPLINE

TOPIC: Viral airborne infection. HIV infection. Rabies.

Skin of a man who died from cardiac insufficiency has an eruption in form of spots and specks. There are also bedsores in the area of sacrum and spinous vertebral processes. Microscopical examination of CNS, skin, adrenal glands revealed in the vessels of microcirculatory bed and in small arteries destructive-proliferative endothrombovasculitis with Popov's granulomas; interstitial myocarditis. What diagnosis corresponds with the described picture?

- A.** Spotted fever
- B.** Q fever
- C.** Enteric fever
- D.** Nodular periarteritis
- E.** HIV

218) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

Autopsy of a man who died from the sepsis in his femoral bone revealed phlegmonous inflammation that affected the marrow, haversian canals and periosteum. Under the periosteum there are multiple abscesses, adjoining soft tissues of thigh also have signs of phlegmonous inflammation. What pathological process was described?

- A.** Acute hematogenous osteomyelitis
- B.** Osteoporosis
- C.** Chronic hematogenous osteomyelitis
- D.** Osteopetrosis
- E.** –

219) krok 2020

DISCIPLINE

TOPIC: Violation of hemostasis. Thrombosis, disseminated intravascular coagulation. Embolism.

A patient ill with thrombophlebitis of his lower limbs had chest pain, blood spitting, progressing respiratory insufficiency that led to his death. Autopsy diagnosed multiple lung infarctions. What is the most probable cause of their development?

- A.** Thromboembolism of pulmonary artery branches
- B.** Thrombosis of pulmonary artery branches

- C. Thrombosis of bronchial arteries
- D. Thromboembolism of bronchial arteries
- E. Thrombosis of pulmonary veins

220) krok 2020

DISCIPLINE

TOPIC ANEMIA

Surgical removal of a part of stomach resulted in disturbed absorption of vitamin B_{12} , it is excreted with feces. The patient was diagnosed with anemia. What factor is necessary for absorption of this vitamin?

- A. Gastromucoprotein
- B. Gastrin
- C. Hydrochloric acid
- D. Pepsin
- E. Folic acid

221) krok 2020

DISCIPLINE

TOPIC: Processes of adaptation and compensation.

In course of a preventive examination of a miner a doctor revealed changes of cardiovascular fitness which was indicative of cardiac insufficiency at the compensation stage. What is the main proof of cardiac compensation?

- A. Myocardium hypertrophy
- B. Tachycardia
- C. Rise of arterial pressure
- D. Dyspnea
- E. Cyanosis

222) krok 2020

DISCIPLINE

TOPIC: Violation of hemostasis. Thrombosis, disseminated intravascular coagulation. Embolism.

2 hours after a skeletal extension was performed to a 27 year old patient with multiple traumas (closed injury of chest, closed fracture of right thigh) his condition abruptly became worse and the patient died from acute cardiopulmonary decompensation. Histological examination of pulmonary and cerebral vessels stained with Sudan III revealed orange drops occluding the vessel lumen. What complication of polytrauma was developed?

- A. Fat embolism
- B. Gaseous embolism
- C. Microbial embolism
- D. Thromboembolism
- E. Air embolism

223) krok 2020

DISCIPLINE

TOPIC: Viral airborne infection. HIV infection. Rabies.

In course of severe respiratory viral infection there appeared clinical signs of progressing cardiac insufficiency that caused death of a patient in the 2nd week of disease. Autopsy revealed that the heart was sluggish, with significant cavity dilatation. Histological examination of myocardium revealed plethora of microvessels and diffuse infiltration of stroma by lymphocytes and histiocytes. What disease corresponds with the described picture?

- A.** Myocarditis
- B.** Stenocardia
- C.** Acute coronary insufficiency
- D.** Myocardium infarction
- E.** Cardiomyopathy

224) krok 2020

DISCIPLINE

TOPIC: Liver Disease

A 38 year old patient with full-blown jaundice, small cutaneous hemorrhages, general weakness and loss of appetite underwent puncture biopsy of liver. Histological examination revealed disseminated dystrophy, hepatocyte necrosis, Councilman's bodies. Lobule periphery has signs of significant infiltration by lymphocytes, there are also individual multinuclear hepatocytes. What is the most probable diagnosis?

- A.** Acute viral hepatitis
- B.** Acute alcoholic hepatitis
- C.** Miliary hepatic cirrhosis
- D.** Toxic degeneration of liver
- E.** Chronic hepatitis

225) krok 2020

DISCIPLINE

TOPIC: Sepsis.

A 20 year old patient died from intoxication 8 days after artificial illegal abortion performed in her 14-15th week of pregnancy. Autopsy of the corpse revealed yellowish colour of eye sclera and of skin, necrotic suppurative endometritis, multiple pulmonary abscesses, spleen hyperplasia with a big number of neutrophils in its sinuses. What complication after abortion was developed?

- A.** Septicopyemia
- B.** Septicemia
- C.** Hemorrhagic shock
- D.** Chroniosepsis
- E.** Viral hepatitis type A

226) krok 2020

DISCIPLINE

TOPIC: The accumulation of proteins, carbohydrates and lipids. Morphology of reversible and irreversible damage of cells and tissues. Intracellular accumulation of proteins, carbohydrates and lipids.

A 6 year old child was delivered to a hospital. Examination revealed that the child couldn't fix his eyes, didn't keep his eyes on toys, eye ground had the cherryred spot sign. Laboratory analyses showed that brain, liver and spleen had high rate of ganglioside glycometide. What congenital disease is the child ill with?

- A.** Tay-Sachs disease
- B.** Wilson's syndrome
- C.** Turner's syndrome
- D.** Niemann-Pick disease
- E.** MacArdle disease

227) krok 2020

DISCIPLINE

TOPIC: Leukemias (leukemia) and lymphomas.

A patient has a cluster of matted together dense lymph nodes on his neck. Histological examination of a removed lymph node revealed proliferation of reticular cells, presense of Reed-Sternberg cells. What disease is meant?

- A.** Lymphogranulomatosis
- B.** Lymphoblastic leukosis
- C.** Myeloblastic leukosis
- D.** Myelocytic leukosis
- E.** Lymphocytic leukosis

228) krok 2020

DISCIPLINE

TOPIC: Tuberculosis

A patient ill with tuberculosis died from progressing cardiopulmonary decompensation. Autopsy in the area of the right lung apex revealed a cavity 5 cm in diameter communicating with lumen of a segmental bronchus. On the inside cavity walls are covered with caseous masses with epithelioid and Langhans cells beneath them. What morphological form of tuberculosis is it?

- A.** Acute cavernous tuberculosis
- B.** Tuberculoma
- C.** Caseous pneumonia
- D.** Infiltrative tuberculosis
- E.** Acute focal tuberculosis

229) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

For the purpose of myocardium infarction treatment a patient was injected with embryonal stem cells derived from this very patient by means of therapeutic cloning . What transplantation type is it?

- A. Autotransplantation
- B. Allotransplantation
- C. Xenotransplantation
- D. Isotransplantation
- E. Heterotransplantation

230) krok 2020

DISCIPLINE

TOPIC ATHEROSCLEROSIS

A 70 year old man is ill with vascular atherosclerosis of lower extremities and coronary heart disease. Examination revealed disturbance of lipidic blood composition. The main factor of atherosclerosis pathogenesis is the excess of the following lipoproteins:

- A. Low-density lipoproteins
- B. Cholesterol
- C. High-density lipoproteins
- D. Intermediate density lipoproteins
- E. Chylomicrons

231) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A 30 year old woman has applied a lipstick with a fluorescent substance for a long time. Then she got a limited erythema and slight peeling on her lip border, later there appeared transversal striae and cracks. Special methods of microscopic examination of the affected area helped to reveal sensitized lymphocytes and macrophages in the connective tissue; cytolysis. What type of immunological hypersensitivity was developed?

- A. IV type (cellular cytotoxicity)
- B. I type (reaginic)
- C. II type (antibody cytotoxicity)
- D. III type (immune complex cytotoxicity)
- E. Granulomatosis

232) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors of the nervous tissue. Features of tumours of the Central nervous system.

Examination of a young woman revealed a node-like, soft and elastic homogenous tumour of

pinkish-white colour along the acoustic nerve. The tumour contains cell bundles with oval nuclei. Cellular fibrous bundles form rhythmic structures made up by parallel rows of regularly oriented cells arranged in form of a palisade with cell-free homogenous zone (Verocay bodies) between them. What tumour is it?

- A. Neurinoma
- B. Malignant neurinoma
- C. Ganglioneurinoma
- D. Neuroblastoma
- E. Ganglioneuroblastoma

233) krok 2020

DISCIPLINE

TOPIC Lymphatic system insufficiency

A 45 year old woman is ill with breast cancer. Her left arm has symptoms of lymphatic system insufficiency - limb edema, lymph node enlargement. What form of lymphatic circulation insufficiency is it?

- A. Mechanic insufficiency
- B. Dynamic insufficiency
- C. Resorption insufficiency
- D. Combined insufficiency
- E.-

234) krok 2020

DISCIPLINE

TOPIC: Diseases of the respiratory system.

The upper lobe of the right lung is enlarged, grey and airless, the incision surface is dripping with turbid liquid, the pleura has many fibrinogenous films; microscopical examination of alveoles revealed exudate containing neutrophils, desquamated alveolocytes and fibrin fibers. The bronchus wall is intact. What is the most probable diagnosis?

- A. Croupous pneumonia
- B. Interstitial pneumonia
- C. Pulmonary abscess
- D. Focal pneumonia
- E. Influenzal pneumonia

235) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

A 28 year old patient had high arterial pressure, hematuria and facial edemata. In spite of treatment renal insufficiency was progressing. 6 months later the patient died from uremia. Microscopic examination of his kidneys and their glomerules revealed proliferation of capsule nephrothelium and of podocytes with "demilune"formation, sclerosis and hyalinosis of glomerules. What disease corresponds with the described picture?

- A. Subacute glomerulonephritis

- B.** Acute pyelonephritis
- C.** Nephrotic syndrome
- D.** Chronic glomerulonephritis
- E.** Acute glomerulonephritis

236) krok 2020

DISCIPLINE

TOPIC dystrophy

Autopsy of a man ill with severe hypothyroidism revealed that connective tissue, organ stroma, adipose and cartilaginous tissues were swollen, semitransparent, mucus-like. Microscopic examination of tissues revealed stellate cells having processes with mucus between them. What type of dystrophy is it?

- A.** Stromal-vascular carbohydrate
- B.** Stromal-vascular adipose
- C.** Stromal-vascular proteinaceous
- D.** Parenchymatous proteinaceous
- E.** Parenchymatous adipose

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237) krok 2020

DISCIPLINE

TOPIC: Damage and death of cells and tissues. Necrosis and apoptosis. Pathological anatomy organ failure. Foundations of thanatology. Death, definition, signs of death.

A patient ill with diabetes mellitus felt acute pain in his right foot. Objectively: foot thumb is black, foot tissues are edematous, there are foci of epidermis desquamation, stinking discharges. What clinicopathological form of necrosis is it?

- A.** Moist gangrene
- B.** Bedsore
- C.** Sequestrum
- D.** Dry gangrene
- E.** Infarction

238) krok 2020

DISCIPLINE

TOPIC: Morphology of reversible and irreversible damage of cells and tissues. Extracellular accumulation of proteins, carbohydrates and lipids.

Autopsy of a 58 y.o. man revealed that bicuspid valve was deformed, thickened and unclosed. Microscopically: foci of collagen fibrilla are eosinophilic, react positively to fibrin. The most probably it is:

- A.** Fibrinoid swelling
- B.** Fibrinous inflammation
- C.** Mucoïd swelling

D. Hyalinosis

E. Amyloidosis

239) krok 2020

DISCIPLINE

TOPIC: Circulatory disorders: hyperemia, ischemia, infarction, hemorrhage, hemorrhage, stasis, plasturgie. Shock. Violation of lymph circulation.

A patient died under conditions of cardiovascular insufficiency. Autopsy results: postinfarction cardiosclerosis, myocardium hypertrophy and dilatation of its cavities, especially of its right ventricle. Liver is enlarged, its surface is smooth, incision revealed that it was plethoric, with darkred specks against the background of brownish tissue. Histologically: plethora of central parts of lobules; peritheral parts around portal tracts contain hepatocytes in a state of adipose degeneration. How are these liver changes called?

A. Nutmeg liver

B. Pseudonutmeg liver

C. Amyloidosis

D. Liver cirrhosis

E. Liver steatosis

240) krok 2020

DISCIPLINE

TOPIC hepatitis

A hepatitis outbreak was registered in a settlement. This episode is connected with water factor. What hepatitis virus could have caused the infective outbreak in this settlement?

A. E

B. C

C. D

D. G

E. B

241) krok 2020

DISCIPLINE

TOPIC IMMUNOPHATOLOGY

A 27 y.o. patient put eye drops that contain penicillin. After a few minutes she felt itching and burning of her body, there appeared lip and eyelid edemata; arterial pressure began to drop. What immunoglobulins took part in the development of this allergic reaction?

A. IgE and IgG

B. IgM and IgG

C. IgA and IgM

D. IgM and IgD

E. IgG and IgD

242) krok 2020

DISCIPLINE

TOPIC: The metabolic disorders and metabolism. The morphology of abnormal accumulation of endogenous and exogenous pigments. The morphology of disorders of mineral metabolism.

A 48 y.o. patient was admitted to the hospital with complaints about weakness, irritability, sleep disturbance. Objectively: skin and scleras are yellow. In blood: conjugated bilirubin, cholemia. Feces are acholic. Urine is of dark colour (bilirubin). What jaundice is it?

- A.** Mechanic
- B.** Hemolytic
- C.** Parenchymatous
- D.** Gilbert's syndrome
- E.** Crigler-Najjar syndrome

243) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A woman has been applying a new cosmetic preparation for a week that resulted in eyelid inflammation accompanied by hyperemia, infiltration and painfulness. What type of allergic reaction was developed?

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

244) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

6 months after delivery a woman had uterine bleeding. Gynecological examination revealed in the uterine cavity a dark-red tissue with multiple cavities that resembled of "sponge". Microscopic examination of the tumour revealed some atypic light epithelial Langhans cells and giant cells of syncytiotrophoblast in blood lacunas. What tumour is it?

- A.** Chorioepithelioma
- B.** Squamous cell nonkeratinous carcinoma
- C.** Adenocarcinoma
- D.** Fibromyoma
- E.** Vesicular mole

245) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

Histological examination of a 40 y.o. man's thymus revealed decreased share of parenchymatous gland elements, increased share of adipose and loose connective tissue, its enrichment with thymus bodies. The organ's mass was unchanged. What phenomenon is it?

- A. Age involution
- B. Accidental involution
- C. Hypotrophy
- D. Dystrophy
- E. Atrophy

246) krok 2020

DISCIPLINE

TOPIC: Sepsis. Syphilis.

Mucous membrane of the right palatine tonsil has a painless ulcer with smooth lacquer fundus and regular cartilagenous edges. Microscopically: inflammatory infiltration that consists of lymphocytes, plasmocytes, a small number of neutrophils and epithelioid cells; endovasculitis and perivasculitis. What disease is it?

- A. Syphilis
- B. Actinomycosis
- C. Tuberculosis
- D. Pharyngeal diphtheria
- E. Ulcerous necrotic Vincent's angina

247) krok 2020

DISCIPLINE

TOPIC appendicitis

Microscopical examination of a removed appendix revealed an edema, diffuse neutrophilic infiltration of appendix wall along with necrosis and defect of mucous membrane with affection of its muscle plate. What appendicitis form was developed?

- A. Ulcerophlegmonous
- B. Phlegmonous
- C. Gangrenous
- D. Superficial
- E. Apostematous

248) krok 2020

DISCIPLINE

TOPIC

A 39 y.o. woman went through an operation in course of which surgeons removed her uterine tube that was enlarged and a part of an ovary with a big cyst. Histological examination of a tube wall revealed decidual cells, chorion villi. What was the most probable diagnosis made after examination of the uterine tube?

- A. Tubal pregnancy
- B. Placental polyp
- C. Choriocarcinoma

D. Papyraceous fetus

E. Lithopedion

249) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

48 hours after performing tuberculin test (Mantoux test) to a child a 10 mm papule appeared on the spot of tuberculin introduction. What hypersensitivity mechanism underlies these changes?

A. Cellular cytotoxicity

B. Anaphylaxis

C. Antibody-dependent cytotoxicity

D. Immune complex cytotoxicity

E. Granulomatosis

250) krok 2020

DISCIPLINE

TOPIC

Examination of a newborn boy's genitals revealed a cleft of urethra that opens on the inferior surface of his penis. What developmental anomaly is it?

A. Hypospadias

B. Hermaphroditism

C. Epispadias

D. Monorchism

E. Cryptorchism

251) krok 2020

DISCIPLINE

TOPIC: Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases.

Colonoscopy of a patient ill with dysentery revealed that mucous membrane of his large intestine is hyperemic, edematous, its surface was covered with grey-and-green coats. Name the morphological form of dysenteric colitis:

A. Fibrinous

B. Catarrhal

C. Ulcerous

D. Purulent

E. Necrotic

252) krok 2020

DISCIPLINE

TOPIC: Anemia. Thrombocytopenia and thrombocytopathy. Coagulopathy.

A 55 y.o. woman consulted a doctor about having continuous cyclic uterine hemorrhages for a year, weakness, dizziness. Examination revealed skin pallor. Hemogram: Hb- 70 g/l, erythrocytes - $3,2 \cdot 10^{12}/l$, color index - 0,6, leukocytes $6,0 \cdot 10^9/l$, reticulocytes - 1%; erythrocyte hypochromia. What anemia is it?

- A. Chronic posthemorrhagic anemia
- B. Hemolytic anemia
- C. Aplastic anemia
- D. B_{12} -folate-deficiency anemia
- E. Iron-deficiency anemia

253) krok 2020

DISCIPLINE

TOPIC: Tuberculosis.

Autopsy of a 48 y.o. man revealed a round formation 5 cm in diameter with clearcut outlines in the region of the 1st segment of his right lung. This formation was encircled with a thin layer of connective tissue full of white brittle masses. Make a diagnosis of the secondary tuberculosis form:

- A. Tuberculoma
- B. Caseous pneumonia
- C. Acute cavernous tuberculosis
- D. Acute focal tuberculosis
- E. Fibrous cavernous tuberculosis

254) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

An experimental animal was first sensitized whereupon an antigen dose was introduced subcutaneously. This injection resulted in the development of a fibrinous inflammation with alteration of vessel walls, basal substance and fibrous structures of connective tissue in form of mucoid and fibrinoid swelling and necrosis. What immunological reaction took place?

- A. Immediate hypersensitivity
- B. Delayed type hypersensitivity
- C. Reaction of transplantation immunity
- D. Normergic reaction
- E. Granulomatosis

255) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

Microscopical renal examination of a 36 y.o. woman who died from renal insufficiency revealed in the glomerules proliferation of capsule nephrothelium as well as of podocytes and phagocytes accompanied by formation of "crescents", capillary loop necrosis, fibrinous

thrombs in their lumens; sclerosis and hyalinosis of glomerules, atrophy of tubules and fibrosis of renal stroma. What is the most probable diagnosis?

- A. Subacute glomerulonephritis
- B. Acute glomerulonephritis
- C. Chronic glomerulonephritis
- D. Focal segmentary sclerosis
- E. Membranous nephropathy

256) krok 2020

DISCIPLINE

TOPIC: Diseases of the respiratory system.

A forensic medical expert examines the body of a 58 y.o. man who had been consuming large amounts of alcohol for a long time and died at home. Microscopically: the right lung is dense and enlarged, its incision revealed that the tissue is greyish and homogenous, pleura is covered with greyish layers. Microscopically - alveolar cavities contain fibrin, hemolyzed erythrocytes. Make a diagnosis:

- A. Croupous pneumonia
- B. Focal pneumonia
- C. Interstitial pneumonia
- D. Primary pulmonary tuberculosis
- E. Caseous pneumonia

257) krok 2020

DISCIPLINE

TOPIC: Damage and death of cells and tissues. Necrosis and apoptosis. Pathological anatomy organ failure. Foundations of thanatology. Death, definition, signs of death.

Autopsy of a 56 y.o. man revealed in the right temporal part of brain a big focus of softened grey matter that was semiliquid and light grey. Arteries of cerebral tela contain multiple whitish-yellow thickenings of intima that abruptly narrow the lumen. What is your diagnosis?

- A. Ischemic stroke
- B. Brain abscess
- C. Hemorrhage
- D. Hemorrhagic infarction
- E. Brain edema

258) krok 2020

DISCIPLINE

TOPIC: Leukemias (leukemia) and lymphomas.

A 22 y.o. woman has enlarged lymph nodes. Histologically: a lymph node contains lymphocytes, histiocytes, reticular cells, small and big Hodgkin's cells, multinucleated Sternberg cells, isolated foci of caseous necrosis. What disease are these changes typical for?

- A. Lymphogranulomatosis

- B.**Lymphosarcoma
- C.**Chronic leukosis
- D.** Acute leukosis
- E.** Lung cancer metastasis

259) krok 2020

DISCIPLINE

TOPIC: Liver Disease

Analysis of a puncture biopsy material of liver revealed hepatocyte dystrophy with necroses as well as sclerosis with disorder of beam and lobulous structure, with formation of pseudolobules and regenerative nodes. What is the most probable diagnosis:

- A.** Liver cirrhosis
- B.** Chronic hepatitis
- C.** Chronic hepatitis
- D.** Progressive massive liver necrosis
- E.** Acute hepatitis

260) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors from epithelium.

A 45 y.o. patient consulted a doctor about plaqueshaped formation on his neck. Histological examination of biopsy skin material revealed tumorous cells of round and oval form with thin ring of basophilic cytoplasm that resemble of cells of basal epidermal layer. What tumour is it?

- A.** Basalioma
- B.** Epidermal cancer
- C.**Hydradenoma
- D.**Trichoepithelioma
- E.** Syringoadenoma

261) krok 2020

DISCIPLINE

TOPIC: Diseases of the respiratory system.

A 63 y.o. man fell ill with acute tracheitis and bronchitis accompanied by bronchial pneumonia. On the 10th day the patient died from cardiopulmonary insufficiency. Autopsy revealed fibrinous hemorrhagic laryngotracheobronchitis; lungs were enlarged, their incision revealed the "coalminer's" effect caused by interlacing of sections of bronchial pneumonia, hemorrhages into the pulmonary parenchyma, acute abscesses and atelectases. Internal organs have discirculatory and dystrophic changes. What is the most probable diagnosis?

- A.** Influenza, severe form
- B.** Moderately severe influenza
- C.**Parainfluenza
- D.**Respiratory syncytial infection

E. Adenoviral infection

262) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

Autopsy of a man who died from influenza revealed that his heart was slightly enlarged, pastous, myocardium was dull and had specks. Microscopical examination of myocardium revealed signs of parenchymatous adipose and hydropic dystrophy; stroma was edematic with poor macrophagal and lymphocytic infiltration, vessels were plethoric; perivascular analysis revealed petechial hemorrhages. What type of myocarditis was developed in this case?

- A. Serous diffuse**
- B. Interstitial proliferative**
- C. Serous focal**
- D. Purulent**
- E. Granulomatous**

263) krok 2020

DISCIPLINE

TOPIC

A boy is 7 y.o. Objectively: against the background of hyperemic skin there is knobby bright-pink rash on his forehead, neck, at the bottom of abdomen, in the popliteal spaces; nasolabial triangle is pale. Examination of oropharyngeal surface revealed localized bright-red hyperemia; tonsils are swollen, soft, lacunas contain pus, tongue is crimson. Cervical lymph nodes are enlarged, dense and painful. What is the most probable diagnosis?

- A. Scarlet fever**
- B. Rubella**
- C. Whooping cough**
- D. Diphtheria**
- E. Infectious mononucleosis**

264) krok 2020

DISCIPLINE

TOPIC

Examination of a patient suffering from frequent haemorrhages in the inner organs and mucous membranes revealed proline and lysine being included in collagen fibers. Impairment of their hydroxylation is caused by lack of the following vitamin:

- A. C**
- B. E**
- C. K**
- D. A**
- E. D**

265) krok 2020

DISCIPLINE

TOPIC: Processes of adaptation and compensation.

A patient who has been abusing tobacco smoking for a long time has got cough accompanied by excretion of viscous mucus; weakness after minor physical stress, pale skin. The patient has also lost 12,0 kg of body weight. Endoscopic examination of biopsy material his illness was diagnosed as squamous cell carcinoma. Name a pathological process that preceded formation of the tumour:

- A. Metaplasia
- B. Hypoplasia
- C. Hyperplasia
- D. Necrosis
- E. Sclerosis

266) krok 2020

DISCIPLINE

TOPIC: Proliferative inflammation. Specific inflammation. Granulomatosis.

A 22 year old patient from the West Ukraine complains of laboured nasal breathing. Morphological examination of biopsy material of nasal mucous membrane revealed lymphoid, epithelioid, plasma cells as well as Mikulicz's cells. What is the most probable diagnosis?

- A. Rhinoscleroma
- B. Glanders
- C. Tuberculosis
- D. Leprosy
- E. Syphilis

267) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

Autopsy of a man who died from burn disease revealed brain edema, liver enlargement as well as enlargement of kidneys with wide light-grey cortical layer and plethoric medullary area. Microscopic examination revealed necrosis of tubules of main segments along with destruction of basal membranes, interstium edema with leukocytic infiltration and haemorrhages. What is the most probable postmortem diagnosis?

- A. Necrotic nephrosis
- B. Tubulointerstitial nephritis
- C. Pyelonephritis
- D. Gouty kidney
- E. Myeloma kidney

268) krok 2020

DISCIPLINE

TOPIC: Viral airborne infection. HIV infection. Rabies.

A 30 year old man had been suffering from acute respiratory disease and died from cardiopulmonary decompensation. Autopsy revealed fibrinous-haemorrhagic inflammation in the mucous membrane of larynx and trachea, destructive panbronchitis, enlarged lungs that look black due to the multiple abscesses, haemorrhages, necrosis. What is the most probable postmortem diagnosis?

- A. Influenza
- B. Parainfluenza
- C. Respiratory syncytial infection
- D. Measles
- E. Adenoviral infection

269) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A patient suffering from periodical attacks caused by inhalation of different flavoring substances was diagnosed with atopic bronchial asthma. IgE level was increased. This is typical for the following type of reactions:

- A. Anaphylactic reactions
- B. Cytotoxic reactions
- C. Immunocomplex reactions
- D. delayed-type hypersensitivity
- E. Autoimmune reactions

270) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

Histological examination of a 40 year old man's thymus revealed reduced share of parenchymatous elements, increased share of adipose and loose connective tissue, its enrichment with thymus bodies. The organ's mass was unchanged. What is this phenomenon called?

- A. Age involution
- B. Accidental involution
- C. Hypotrophy
- D. Dystrophy
- E. Atrophy

271) krok 2020

DISCIPLINE

TOPIC

A clinic observes a 49 year old patient with significant prolongation

of coagulation time, gastrointestinal haemorrhages, subcutaneous hematomas. These symptoms might be explained by the deficiency of the following vitamin:

- A. K
- B. B₁
- C. B₆
- D. H
- E. E

272) krok 2020

DISCIPLINE

TOPIC: Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases.

A patient has been suffering from diarrhea for 5 days. On the fifth day colonoscopy revealed that membrane of rectum was inflamed, there were greyish-green films closely adhering to the subjacent tissue. What is the most probable diagnosis?

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

273) krok 2020

DISCIPLINE

TOPIC: General doctrine of inflammation. Exudative inflammation. The morphology of exudative inflammation

A 4 year old child complained of pain during deglutition, indisposition. Objectively: palatine arches and tonsils are moderately edematous and hyperemic, there are greyish-white films up to 1 mm thick closely adhering to the subjacent tissues. What pathological process are these changes typical for?

- A. Inflammation
- B. Dystrophy
- C. Necrosis
- D. Metaplasia
- E. Organization

274) krok 2020

DISCIPLINE

TOPIC

A patient was stung by a bee. Examination revealed that his left hand was hot, pink, edematous, there was a big red blister on the site of sting. What is the leading mechanism of edema development?

- A. Increased vessel permeability
- B. Reduced vessel filling
- C. Injury of vessels caused by the sting

- D.** Drop of oncotic pressure in tissue
- E.** Drop of osmotic pressure in tissue

275) krok 2020

DISCIPLINE

TOPIC: Tuberculosis.

A 46 year old patient who had been suffering from tuberculosis for 6 years died from massive pulmonary haemorrhage. Autopsy revealed different sized foci of sclerosis and caseous necrosis in lungs, in the upper part of the right lung there was a cavity 5 cm in diameter with dense grey walls, the cavity contained liquid blood and blood clots. What type of tuberculosis is it?

- A.** Fibrocavernous
- B.** Acute cavernous
- C.** Infiltrative
- D.** Fibrous focal
- E.** Acute focal

276) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

A couple had a child with Down's disease. Mother is 42 years old. This disease is most probably caused by the following impairment of prenatal development:

- A.** Gametopathy
- B.** Blastopathy
- C.** Embryopathy
- D.** Non-specific fetopathy
- E.** Specific fetopathy

277) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

Examination of a child who frequently suffers from infectious diseases revealed that IgG concentration in blood serum was 10 times less than normal, IgA and IgM concentration was also significantly reduced. Analysis showed also lack of B-lymphocytes and plasmocytes. What disease are these symptoms typical for?

- A.** Bruton's disease
- B.** Swiss-type agammaglobulinemia
- C.** Dysimmunoglobulinemia
- D.** Louis-Bar syndrome
- E.** Di George syndrome

278) krok 2020

DISCIPLINE

TOPIC: For pituitary disease. Diabetes mellitus. Diseases of the thyroid gland. Diseases of the adrenal glands.

Examination of a 42 year old patient revealed a tumour of adenohypophysis. Objectively: the patient's weight is 117 kg, he has moon-like hyperemic face, red-blue striae of skin distension on his belly. Osteoporosis and muscle dystrophy are present. AP is 210/140 mm Hg. What is the most probable diagnosis?

- A. Cushing's disease
- B. Cushing's syndrome
- C. Conn's disease
- D. Diabetes mellitus
- E. Essential hypertension

279) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A patient with skin mycosis has disorder of cellular immunity. The most typical characteristic of it is reduction of the following index:

- A. T-lymphocytes
- B. Immunoglobulin G
- C. Immunoglobulin E
- D. B-lymphocytes
- E. Plasmocytes

280) krok 2020

DISCIPLINE

TOPIC: Nomenclature and morphological features of tumors of the nervous tissue. Features of tumours of the Central nervous system.

Autopsy of a 5 year old child revealed in the area of vermis of cerebellum a soft greyish-pink node 2 cm in diameter with areas of haemorrhage. Histologically this tumour consisted of atypical monomorphous small roundish cells with big polymorphous nuclei. What tumour is it?

- A. Medulloblastoma
- B. Meningioma
- C. Glioblastoma
- D. Astrocytoma
- E. Oligodendroglioma

281) krok 2020

DISCIPLINE

TOPIC

A female patient underwent liver transplantation. 1,5 month after it her condition became worse because of reaction of transplant rejection. What factor of immune system plays the leading part in this reaction?

- A.** T-killers
- B.** Interleukin-1
- C.** Natural killers
- D.** B-lymphocytes
- E.** T-helpers

282) krok 2020

DISCIPLINE

TOPIC: Pathomorphology of the immune system. Reactions and mechanisms of hypersensitivity. The autoimmune disease. Immunodeficiency States.

A patient in a transplantation centre underwent heart transplantation. The organ was taken from a donor who died in a road accident. Foreign heart can be rejected as a result of development of transplantation immunity. It is usually prevented by means of:

- A.** Immunosuppressors
- B.** Chemotherapy
- C.** Ultrasound
- D.** Enzymes
- E.** X-ray therapy

283) krok 2020

DISCIPLINE

TOPIC: Infectious and parasitic diseases. Characterization of the infectious process. Intestinal infectious diseases.

A patient had been suffering from profuse diarrhea and vomiting for 2 days. He died from acute dehydration. Autopsy revealed that the intestinal wall was edematous and hyperemic, with multiple haemorrhages in the mucous membrane. Intestine lumen contains whitish fluid resembling of rice water. What disease caused death?

- A.** Cholera
- B.** Dysentery
- C.** Salmonellosis
- D.** Typhoid fever
- E.** Enterocolitis

284) krok 2020

DISCIPLINE

TOPIC

Examination of a 66 year old patient revealed a lytic tumour in the locus of pathological rib fracture. Histologically this tumour consists of atypical plasmoblasts. Further examination revealed osteoporosis in the bones of vertebral column and pelvis. These changes are typical for:

- A. Myelomatosis
- B. Tuberculous osteomyelitis
- C. Ewing's osteosarcoma
- D. Neuroblastoma
- E. Metastatic lung cancer

285) krok 2020

DISCIPLINE

TOPIC: Diseases of the esophagus, stomach and intestines.

A patient died from acute cardiac insufficiency, among clinical presentations there was gastrointestinal haemorrhage. Examination of mucous membrane of stomach revealed some defects reaching myenteron; their edges and bottom were mostly even and loose, some of them contained dark-red blood. What pathological process was revealed?

- A. Acute ulcers
- B. Chronic ulcers
- C. Erosions
- D. Thrombosis
- E. Inflammation

286) krok 2020

DISCIPLINE

TOPIC: Kidney Disease.

A 33 year old man died from uraemia. Autopsy revealed enlarged kidneys weighing 500,0 each and consisting of multiple cavities 0,5-2 cm in diameter. The cavities were full of light-yellow transparent liquid. Renal pelvis and ureters had no peculiarities. What renal disease caused uraemia?

- A. Bilateral polycystic renal disease
- B. Chronic pyelonephritis
- C. Renal tumour
- D. Renal tuberculosis
- E. Rapidly progressing glomerulonephritis

287) krok 2020

DISCIPLINE

TOPIC: Pre - & perinatal pathology.

An alcoholic woman has born a girl with mental and physical developmental lag. Doctors diagnosed the girl with fetal alcohol syndrome. What effect is the cause of the girl's state?

- A. Teratogenic
- B. Mutagenic
- C. Malignization
- D. Carcinogenic
- E. Mechanic

288) krok 2020

DISCIPLINE

TOPIC: Circulatory disorders: hyperemia, ischemia, infarction, hemorrhage, hemorrhage, stasis, plasturgie. Shock. Violation of lymph circulation.

A patient with obliterating atherosclerosis underwent sympathectomy of femoral artery in the region of femoral trigone. What type of arterial hyperemia was induced by the operation?

- A. Neuroparalytic
- B. Reactive
- C. Metabolic
- D. Neurotonic
- E. Functional

A.

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DISCIPLINE

TOPIC Syphilis

A 23 year old man has perforation of hard palate. In the area of this perforation there was a compact well-defined formation. Microscopic examination of the resected formation revealed a large focus of caseous necrosis surrounded by granulation tissue with endovasculitis, cellular infiltration composed of lymphocytes, epithelioid cells (mainly plasmocytes). What is the most probable diagnosis?

- A. Syphilis
- B. Tuberculosis
- C. Scleroma
- D. Sarcoma
- E. Leprosy

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DISCIPLINE

TOPIC

A 50 year old man who was referred to the hospital for treatment of cervical lymphadenitis underwent test for individual sensitivity to penicillin. 30 seconds after he went hot all over, AP dropped down to 0 mm Hg that led to cardiac arrest. Resuscitation was unsuccessful. Autopsy results: acute venous plethora of internal organs; histological examination of skin (from the site of injection) revealed degranulation of mast cells (tissue basophils). Degranulation was also revealed in myocardium and lungs. What type of hypersensitivity reaction is it?

- A. Anaphylactic
- B. Delayed-type hypersensitivity
- C. Complement-mediated cytotoxic
- D. Immunocomplex-mediated

E. –