

**FEDERAL STATE BUDGET EDUCATIONAL
HIGHER EDUCATION INSTITUTION
"ROSTOV STATE MEDICAL
UNIVERSITY" OF THE MINISTRY OF
HEALTH OF THE RUSSIAN
FEDERATION**

FACULTY MEDICAL-PROPHYLACTIC

Evaluation materials

by discipline **pathological anatomy, clinical pathological
anatomy**

Specialty 05/31/01 general medicine

2023

1. Scroll competencies, formed discipline (in whole or in part)*

general professional (OPK):

Code and name of general professional competencies	General professional achievement indicator(s) competencies
OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body for solving professional problems.	ID3 OPK-5 Able to evaluate morphofunctional, physiological parameters and determine the presence of pathological processes in the human body based on clinical data laboratory, physical and instrumental research methods

2. Types of assessment materials in accordance with the competencies being developed

Name of competency	Types of assessment materials	number of tasks for 1 competency
OPK-5. Capable evaluate morphofunctional, physiologically	Tasks closed type	25 standards Wi th answers
	Tasks open type: Tasks on additions	75 standards Wi th answers

e conditions and pathological processes in the human body for solutions professionals tasks.	Situational tasks Questions for an interview	
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OPK-5:

Closed-type tasks: TOTAL 25 tasks.

Task 1. Instructions: Choose one correct answer.

An autopsy revealed multiple foci of bone tissue destruction in the vertebrae and skull. At

Histological examination in the bone marrow revealed a pronounced proliferation of atypical plasma cells, amyloid deposits in the glomeruli and walls of renal vessels, and multiple deposits in the lumens of the tubules.

protein cylinders. The described changes made it possible to diagnose:

- 1) chronic myeloid leukemia; 2) chronic lymphocytic leukemia;
- 3) true polycythemia;
- 4) solitary plasmacytoma of bone;
- 5) multiple myeloma.

Response standard: 5) multiple myeloma.

Task 2. Instructions: Choose one correct answer.

Splenomegaly (weighing more than 3 kg) and liver enlargement are most pronounced with:

- 1) acute myeloblastic leukemia;

- 2) chronic lymphocytic leukemia;
- 3) chronic myeloid leukemia;
- 4) Hodgkin's lymphoma;
- 5) vera polycythemia.

Response standard: 3) chronic myeloid leukemia.

Task 3. Instructions: Choose one correct answer. Enlarged lipid core, tegmental tears, hemorrhages, inflammatory infiltration

correspond to:

- 1) atheromatous plaque;
- 2) unstable plaque;
- 3) atheromatous ulcer;
- 4) fibrous plaque;
- 5) liposclerosis.

Response standard: 2) unstable plaque.

Task 4. Instructions: Choose one correct answer.

Hypertension affects:

- 1) only arteries of elastic type;
- 2) arteries of elastic and elasto-muscular type;
- 3) arterioles and small arteries of the muscular type;
- 4) capillaries and small veins;
- 5) veins and venules.

Response standard: 3) arterioles and small arteries of the muscular type.

Task 5. Instructions: Choose one correct answer.

When thrombosis of the main branch of the left coronary artery occurs, myocardial infarction occurs:

- 1) anterior wall of the left ventricle
- 2) posterior wall of the left ventricle
- 3) lateral wall of the left ventricle

- 4) circular
- 5) interventricular septum

Response standard: 4) circular.

Task 6. Instructions: Choose one correct answer. Select the most likely timing of rupture of the wall of the left ventricle at transmural myocardial infarction:

- 1) first 6-8 hours;
- 2) 16-24 hours;
- 3) 4 - 6 days;
- 4) 2-3 weeks;
- 5) 2-3 months.

Response standard: 3) 4— 6 days.

Task 7. Instructions: Choose one correct answer.

Spasm of arterioles, plasmorrhagia, fibrinoid necrosis of the walls of small arteries, diapedetic hemorrhages around the vessels are observed with:

- 1) atherosclerosis;
- 2) hypertensive crisis;
- 3) arteriosclerosis;
- 4) vasculitis;
- 5) vascular amyloidosis.

Response standard: 2) hypertensive crisis.

Task 8. Instructions: Choose one correct answer.

A persistent increase in blood pressure during arterial hypertension is due to:

- 1) spasm of arterioles;
- 2) plasmatic soaking walls large arteries;
- 3) hyalinosis of the walls of arterioles and small arteries;

- 4) focal fibrinoid necrosis of arterial walls;
- 5) atherosclerosis of the arteries.

Response standard: 3) hyalinosis of the walls of arterioles and small arteries.

Task 9. Instructions: Choose one correct answer. One of the forms of endocarditis in rheumatism:

- 1) acute polyposis-ulcerative;
- 2) recurrent verrucous;
- 3) subacute polyposis-ulcerative;
- 4) chronic polyposis-ulcerative;
- 5) infectious.

Response standard: 2) recurrent warty.

Task 10. Instructions: Choose one correct answer.

Complication of acute warty endocarditis of the mitral valve:

- 1) pulmonary infarction;
- 2) pulmonary embolism;
- 3) brain abscess;
- 4) kidney infarction;
- 5) valve rupture.

Response standard: 4) kidney infarction.

Task 11. Instructions: Choose one correct answer. The outcome of rheumatic myocarditis is:

- 1) heart disease;
- 2) small focal cardiosclerosis;
- 3) brown atrophy of the heart;
- 4) obliteration of the pericardial cavity;
- 5) large-focal cardiosclerosis.

Response standard: 2) small focal cardiosclerosis.

Task 12. Instructions: Choose one correct answer. Abacterial warty endocarditis Libman-

Saxa occurs when:

- 1) rheumatism;
- 2) rheumatoid arthritis;
- 3) acute myocardial infarction;
- 4) syphilis;
- 5) systemic lupus erythematosus.

Response standard: 5) systemic lupus erythematosus.

Task 13. Instructions: Choose one correct answer. With polyarteritis nodosa, fibrinoid necrosis and productive inflammation develop in the walls of:

- 1) arterioles, venules and capillaries;
- 2) aorta and large arteries;
- 3) medium and small arteries;
- 4) small arteries and veins;
- 5) arterioles and capillaries of the glomeruli of the kidneys

Response standard: 3) medium and small arteries.

Task 14. Instructions: Choose one correct answer. Autoimmune chronic erosive destructive arthritis with symmetrical damage to small joints and systemic inflammatory changes in internal organs signs:

- 1) rheumatism;
- 2) systemic lupus erythematosus;
- 3) psoriasis;
- 4) gout;
- 5) rheumatoid arthritis.

Response standard: 5) rheumatoid arthritis.

Task 15. Instructions: Choose one correct answer. The development of an alveolar-capillary block in fibrosing alveolitis is associated with:

- 1) reduction of the capillary network of the lung stroma;
- 2) expansion of the alveoli and alveolar ducts;
- 3) fibrosis of the interalveolar septa;
- 4) atelectasis;
- 5) decrease in surfactant content.

Reference answer: 3) fibrosis interalveolar septa.

Task 16. Instructions: Choose one correct answer. Chronic hepatitis differs from acute hepatitis:

- 1) severity of dystrophic changes;
- 2) the presence of bridge-like necrosis;
- 3) penetration inflammatory infiltrate into a slice;
- 4) cholestasis;
- 5) development of fibrosis.

Response standard: 5) development of fibrosis.

Task 17. Instructions: Choose one correct answer. Fat dystrophy hepatocytes; corpuscles Mallory; infiltrates from neutrophil leukocytes; compression of branches portal veins; narrow fibrous

layers - characteristic microscopic signs of liver cirrhosis:

- 1) post-necrotic viral;
- 2) primary biliary;
- 3) alcoholic;
- 4) heart;
- 5) medicinal.

Response standard: 3) alcoholic.

Task 18. Instructions: Choose one correct answer.

The most characteristic morphological sign of subacute (rapidly progressive) glomerulonephritis:

- 1) hyaline nodules on the periphery of glomerular capillaries;
- 2) thickening of the basement membrane of the glomerular capillaries;
- 3) formation of “crescents” from the proliferating epithelium of the glomerular capsule;
- 4) ischemic necrosis of glomerular arterioles;
- 5) interstitial fibrosis

Reference answer: 3) education "half moon" from proliferating epithelium of the glomerular capsule.

Task 19. Instructions: Choose one correct answer. A disease often complicated by renal amyloidosis:

- 1) rheumatoid arthritis;
- 2) rheumatism;
- 3) atherosclerosis of the renal arteries;
- 4) hypertonic disease;
- 5) alcoholic cirrhosis of the liver

Response standard: 1) rheumatoid arthritis; .

Task 20. Instructions: Choose one correct answer.

Organs in which metastatic abscesses most often appear during septicopyemia:

- 1) heart, spleen;
- 2) brain, bone marrow;
- 3) lungs, kidneys;
- 4) skin, subcutaneous fatty tissue;
- 5) The lymph nodes.

Response standard: 3) lungs, kidneys.

Exercise 21. Instructions: Select
somecorrect answers.

Exposure to bacterial antigens causes the following changes in the organs of immunogenesis:

1) sinus histiocytosis; 2) hyperplasia of the paracortical zones of the lymph nodes; 3) hyperplasia of the reproductive centers of the follicles of the lymph nodes; 4) plasmacytic transformation of lymphocytes; 5) hyperplasia of the periarterial zones of the spleen pulp; 6) myeloid metaplasia; 7) reduction of lymphoid follicles in the spleen and lymph nodes.

Sample answer: 1, 3, 4, 6

Exercise 22. Instructions: Select
somecorrect answers.

Morphological manifestations of immediate hypersensitivity reactions:

1) fibrinoid necrosis of vessel walls; 2) purulent inflammation; 3) productive inflammation; 4) infiltration mast cells; 5) infiltration by eosinophils, 6) fibrinous inflammation; 7) formation of epithelioid cell granulomas

Sample answer: 1, 4, 5, 6

Task 23. Instructions: Choose several correct answers.

Macroscopic changes in the thyroid gland during thyrotoxic goiter: 1) increased in size; 2) reduced in size; 3) dense consistency; 4) on a section of a uniform type; 5) on a section of a heterogeneous appearance, with many nodes and cysts.

Sample answer: 1, 3, 4

Exercise 24. Instructions: Select
some correct answers.

The main histological forms of thyroid cancer are: 1) papillary; 2) squamous; 3) follicular; 4) acinar; 5) medullary; 6) choroid carcinoma.

Sample answer: 1, 3, 5

Exercise 25. Instructions: Select
some correct answers.

Insufficiency of the anterior lobe of the pituitary gland is manifested by: 1) obesity; 2) exhaustion; 3) hypothyroidism; 4) polyuria; 5) dwarf stature; 6) arterial hypertension; 7) arterial hypotension.

Sample answer: 2, 3, 5, 7

Open type tasks: TOTAL 75 tasks.

Addition tasks: TOTAL 10 tasks.

Task 26.

The modern classification of leukemia is based on the following characteristics of tumor cells: 1)_____, 2)_, 3)_____.

Sample answer: 1) histogenesis; 2) degree of differentiation; 3) phenotype.

Task 27.

Depending on the location in the layers of the heart muscle, the following forms of myocardial infarction are distinguished: 1)_____, 2)_____, 3)_____, 4)_____.

Sample answer: 1) subendocardial, 2) subepicardial, 3) intramural, 4) transmural.

Task 28.

A 67-year-old man who died from transmural myocardial infarction, at autopsy, 300 ml of blood and blood clots were found in the cavity of the heart sac. What complications developed? 1)_____, 2)_____, 3)_____, 4)_____.

Sample answer: 1) myomalacia; 2) true heart rupture; 3) hemopericardium; 4) cardiac tamponade.

Task 29.

Increased heart size, hypertrophy of the left ventricular myocardium and interventricular septum, subaortic muscular stenosis with normal and or

signs of reduced cavity sizes

cardiomyopathy.

Sample answer: hypertrophic.

Task 30. Diabetic macroangiopathy is characterized by damage to: 1) _____, 2) _____, 3) _____.

Sample answer: 1) aorta; 2) arteries of the muscular-elastic type; 3) arteries of elastic type.

Task 31. With viral hepatitis “A”, liver cells develop _____ dystrophy

Sample answer: hydropic.

Task 32. List the stages of acute renal disease insufficiency: 1) _____, 2) _____, 3) _____.

Sample answer: 1) oligoanuric; 2) shock, 3) stage of diuresis restoration.

Task 33. Specify the types of exudative inflammation developing in the glomeruli of the kidney during acute poststreptococcal glomerulonephritis: 1) _____, 2) _____, 3) _____.

Sample answer: 1) serous; 2) fibrinous; 3) hemorrhagic.

Task 34. Complications of chronic *Helicobacter gastritis* (B), which can lead to death: 1)_, 2)_____, 3)_.

Sample answer: 1) gastric ulcer; 2) stomach cancer; 3) MALT lymphoma.

Task 35. An extracardiac complication of prolonged septic _____ endocarditis _____ is

spleen.

Sample answer: ischemic (white) infarction.

Situational tasks. TOTAL 52 tasks.

Task 36.

A 42-year-old woman complains of severe pain in the left hypochondrium, weakness, sweating, and fever. A year ago, weakness, sweating, increased fatigue appeared, and leukocytosis appeared in the peripheral blood (leukocytes $24.0 \times 10^9/l$). Treatment was carried out. In the last month, weakness and sweating have increased, pain in the bones and left hypochondrium has appeared, and the temperature has increased. On examination: the skin is pale With single _____ petechial hemorrhages, peripheral lymph nodes are not enlarged. The liver protrudes 2 cm from under the edge of the costal arch, an enlarged spleen is palpable. Blood test: erythrocytes $3 \times 10^{12}/l$, hemoglobin 110 g/l, platelets $107 \times 10^7/l$, leukocytes $59 \times 10^9/l$ (myeloblasts 43%, eosinophils 9%, myelocytes 10%, segmented leukocytes 16%, lymphocytes 22%), ESR 30 mm/h.

1. Your diagnosis:
2. What phase of the disease does the patient have?

3. What causes pain in the left hypochondrium:

Sample answer: 1) chronic myeloid leukemia, 2) accelerated phase, 3) splenomegaly.

Task 37.

A 53-year-old man was admitted to the clinic with complaints of weakness, sweating, an occasional increase in temperature to 37.2-37.5° C, and enlarged cervical, axillary and inguinal lymph nodes. Over the past 5 years, I have often suffered from colds. On examination: soft, painless cervical, inguinal and axillary lymph nodes, enlarged to the size of a chicken egg, not fused to each other or to the subcutaneous tissue, are palpated. The liver protrudes 1.5-2 cm from under the edge of the costal arch, slightly painful on palpation. The spleen protrudes 4-5 cm from under the edge of the left costal arch, rather dense, painless on palpation. X-ray of the chest revealed enlarged mediastinal lymph nodes. Blood test: red blood cells $2.3 \times 10^{12}/l$, hemoglobin

74 g/l, leukocytes $50 \times 10^9/l$ (eosinophils 1%,

rod 2%, segmented 17%, lymphocytes

79%, monocytes 1%, platelets $100 \times 10^9/l$, ESR 60 mm/h.

1. Your diagnosis:

2. What pathological process led to enlargement of the lymph nodes, liver and spleen?

3. What research method is most informative in diagnosing this pathology?

Sample answer: 1) chronic lymphocytic leukemia,

2) leukemic infiltration, 5) trephine biopsy of the bone marrow of the ilium.

Task 38.

A 62-year-old woman complains of pain in the lumbar spine, legs, and right collarbone. Near

She has been observed by a neurologist for 5 years for osteochondrosis of the lumbar spine and secondary radiculitis.

On examination: the patient's condition is satisfactory, the peripheral lymph nodes are not enlarged, and the sternum, collarbone, and shins are painful on palpation. Blood test: erythrocytes $3.6 \times 10^{12}/l$, hemoglobin 128 g/l, leukocytes $4.8 \times 10^9/l$ (eosinophils 2%, band 3%, segmented 58%, lymphocytes 30%, monocytes 7%), ESR 58 mm/h, platelets $156 \times 10^9/l$, total blood protein 122 g/l. Bence-Jones protein was detected in the urine. X-ray examination revealed cavities in the body vertebrae, collarbone, and sternum.

1. Your diagnosis:

2. What cells does the tumor consist of?

3. Hyperproteinemia and protein in the urine are caused by:

Standard answer: 1) multiple myeloma (myeloma);

2) from plasma cells; 3) synthesis of light chains of immunoglobulins.

Task 39.

A 24-year-old man 2 months ago discovered an enlarged lymph node on the left side of his neck; then weakness, itching of the skin appeared, a week ago - chills with an increase in body temperature up to $39^{\circ}C$. The use of antibacterial drugs did not give an effect, when examination at the clinic where the patient went for help, it was discovered: on the left side of the neck, two lymph nodes with a diameter of 1.5 and 2 cm, dense, painless. With histological

examination of a removed larger node revealed foci of caseous necrosis surrounded by lymphocytes, plasma cells, eosinophilic leukocytes, Hodgkin and Berezovsky-Sternberg-Reed cells.

1. Your diagnosis:
 2. Specify the clinical stage of the disease
 3. What histological variant of the tumor was identified?
- Sample answer: 1) Hodgkin's lymphoma; 2) stage 1; 3) mixed-cell variant.

Task 40

In a 23-year-old woman, who had been ill for 1 month and died from a cerebral hemorrhage, an autopsy revealed an enlargement of all groups of lymph nodes and the spleen. Multiple hemorrhages in the mucous and serous membranes, ulcerative-necrotic foci in the gastrointestinal mucosa were noted. The bone marrow of spongy and tubular bones is juicy and red. Immunohistochemical study in the bone marrow of the diaphysis hips discovered 60% of blasts contain myeloperoxidase.

1. Your diagnosis:
 2. What process caused the enlargement of the lymph nodes and spleen?
 3. Hemorrhages and ulcerative-necrotic foci in the gastrointestinal tract are caused by:
- Response standard:* 1) acute myeloblastic leukemia; 2) leukemic infiltration; 3) DIC syndrome.

Task 41.

A 50-year-old man was admitted to the hematology department with fever, foreheads for weakness, shortness of breath when walking. These complaints increased gradually after 3 years ago he was

The stomach was resected due to a chronic ulcer. At upon arrival, the skin and mucous membranes are pale, heart sounds are dull. In the blood test: Er. $2.4 \times 10^{12}/l$, hemoglobin 62 g/l. Serum iron levels were unchanged. During FGDS in the gastric stump there are pathologies not found.

1. Your diagnosis:
2. What type of hematopoiesis is observed in this disease?
3. What pathological process in the heart and liver caused the described symptoms?

Sample answer: 1) B12 deficiency anemia; 2) megaloblastic type; 3) fatty degeneration

Task 42.

In a 64-year-old man, radiological and ultrasound examinations revealed long-term atherosclerosis of the aorta with expansion of the abdominal department over 8.0 cm. Suddenly the patient developed strong back pain, blood pressure dropped to 0 and death occurred.

1. What clinical and anatomical form of atherosclerosis did the patient have?
2. What complication of atherosclerosis was revealed by instrumental research methods?
3. What complication led to death?

Sample answer: 1) atherosclerosis of the aorta; 2) aneurysm; 3) rupture of an aneurysm.

Task 43.

A 73-year-old woman who had suffered from hypertension for a long time dies of renal failure.

1. Can renal failure be associated with arterial hypertension?
2. What complication develops in the kidneys with prolonged arterial hypertension?
3. What type of atrophy is observed in kidney tissue?
Sample answer: 1) yes; 2) arteriosclerotic nephrosclerosis; 3) atrophy from circulatory disorders.

Task 44.

During the autopsy of a deceased woman, 68 years old, long suffered from hypertension, in the temporal lobe of the left hemisphere of the brain a cavity measuring 3.0 x 2.5 cm filled with a blood clot was found, in the subcortical nodes of the right hemisphere there was a cyst 0.7 cm in diameter with smooth gray walls.

1. What process has developed in the left hemisphere of the brain?
2. His reason:
3. What process results in a cyst with gray walls?

Sample answer: 1) hemorrhage with the formation of a cavity (hematoma); 2) rupture of the middle cerebral artery; 3) ischemic heart attack.

Task 45.

A 65-year-old patient who had suffered from atherosclerosis for a long time gradually developed abnormal behavior that led him to a psychiatric hospital. At autopsy, the brain is reduced in size, the cortex is thinned, the furrows are deepened, the gyri of the frontal and occipital lobes are pointed.

1. What clinical and morphological form of atherosclerosis is described?
2. What type of circulatory disorder occurred?

3. What pathological process in the brain is described?

Sample answer: 1) atherosclerosis of cerebral vessels; 2) chronic arterial anemia (ischemia); 3) atrophy from impaired blood supply.

Task 46.

A 40-year-old man, after stress, developed pain in the heart area, radiating to the left shoulder blade and arm, weakness, lethargy, lasting more than 1 hour. At

Upon admission to the hospital, the patient was observed to be in an extremely serious condition, the pulse was thready, blood pressure was 60/0 mmHg. Art. Heart sounds are muffled. Despite ongoing

resuscitation measures, after 12 hours from the beginning biological death occurred. An autopsy revealed general venous plethora

internal organs, pulmonary edema. In the intima of the coronary the arteries of the heart have a large number of yellow-white plaques that stenose the lumen of the vessels. The myocardium of the anterior wall of the left ventricle and the anterior part of the interventricular septum is flabby, unevenly plethoric, edematous, grayish-brown in color.

1. What disease does the patient have?

2. Which coronary artery is affected?

3. What complication was the cause of death?

Sample answer: 1) acute myocardial infarction; 2) anterior descending branch of the left coronary artery; 3) cardiogenic shock.

Task 47.

An autopsy of a 67-year-old man who died of myocardial infarction revealed 300 ml of blood and blood clots in the cavity of the cardiac membrane.

1. Specify the mechanism of bleeding:

2. What is the accumulation of blood in the cardiac membrane called?

3. What kind of myocardial infarction, based on localization in the heart muscle, will cause such complications?

Sample answer: 1) true heart rupture; 2) hemopericardium; 3) transmural infarction.

Task 48.

An autopsy of a 40-year-old patient revealed a saccular protrusion of the wall of the middle cerebral artery on the right with a diameter of 1 cm, in the lumen of which there are dry, matte, crumbly red blood clots. On

The outer surface of this formation has a through defect 0.2 cm in diameter. Soft brain

the shells are soaked in dark red blood and are dull.

1. Your diagnosis:

2. What changes were found in brain tissue?

3. Specify the mechanism of bleeding development.

Sample answer: 1) saccular aneurysm of the right middle cerebral artery; 2) subarachnoid hemorrhage; 3) rupture of the aneurysm wall

Task 49.

A 50-year-old man, suffering from a severe form of hypertension, suddenly loses consciousness and falls on the street. He is taken to the neurological department, where examination reveals right-sided hemiparesis, loss of speech (aphasia) and loss of sensation on the right. MRI revealed a 2.5 x 1.5 cm cavity with heterogeneous contents in the left hemisphere of the brain at the level of the subcortical nuclei.

1. What process has developed in the brain?

2. Which brain vessel is damaged?

3. Specify the mechanism of damage:

Sample answer: 1) bleeding in the brain (hematoma); 2) left middle cerebral artery; 3) rupture of the vessel wall.

Task 50.

During an autopsy of the heart of a 49-year-old man, it was noted: the bicuspid valve was thickened along the closure line to 0.3 cm, whitish, opaque, the leaflets were shortened, fused together. Left venous opening with difficulty passes the tip of a gloved finger, perimeter 2.5 cm. Pinkish-yellow warty deposits with a diameter of 0.2-0.3 cm are densely scattered along the edge, easily removable.

1. What disease does the man have?
2. What process caused the valve to deform?
3. What heart defect was detected in the patient?

Sample answer: 1) rheumatism, active phase; 2) recurrent verrucous endocarditis; 3) stenosis of the foramen mitral valve.

Task 51.

A 60-year-old patient died in hospital due to symptoms respiratory failure. At autopsy, the upper lobe of the right lung was sharply compacted, dark red in color with fibrinous deposits on the pleura. Regional lymph nodes are enlarged and full of blood.

1. Your diagnosis:
2. Indicate the stage of the disease.
3. Type of exudate accumulating in the alveoli at this stage.

Sample answer: 1) lobar (lobar) pneumonia; 2) stage of red hepatitis; 3) fibrinous-hemorrhagic..Task 52.

During the flu epidemic, a patient was admitted to the clinic with complaints of fever, shortness of breath, cough, weakness for 3 days. Upon examination, bilateral pneumonia was diagnosed. Despite the therapy, the patient died due to pulmonary heart failure. At autopsy a picture of a “large mottled influenza lung” was discovered, hemorrhages in the serous and mucous membranes membranes, brain stem.

1. Your diagnosis:
2. What form of illness occurred?
3. Most likely cause of death:
Sample answer: 1) influenza; 2) severe toxic form; 3) hemorrhage in the brain stem.

Task 53.

A 35-year-old man, an intravenous drug addict, HIV-infected, suddenly and quickly developed shortness of breath and cough with scant sputum progressed. In cases of increasing pulmonary-cardiac failure, the patient died. Microscopic examination of sectional material in the lungs revealed diffuse inflammatory infiltration of the alveolar septa with accumulation of foamy eosinophilic material with strands of unstained cysts in the lumen of the alveoli.

1. What diagnosis was made by the pathologist based on this microscopic picture: a), b)?
2. What was the factor that contributed to your development of this disease?
3. Which of the clinical and morphological forms should this pneumonia be classified as?
Sample answer: 1) Pneumocystis pneumonia. 2) secondary immunodeficiency, 3) focal bronchopneumonia.

Task 54.

A 63-year-old man died from chronic renal failure. At autopsy, saccular and cylindrical expansions of the bronchi, increased airiness and decreased elasticity were found in the lungs

lung tissue. The weight of the heart is 400 g, its right parts are enlarged. The kidneys are enlarged, dense in consistency, pale pink in color, and have a greasy sheen when cut.

1. What is your diagnosis?
2. What process caused the increase in heart mass?
3. What was the cause of chronic renal failure?

Sample answer: 1) COPD (bronchiectasis, emphysema lungs). 2) right ventricular myocardial hypertrophy, 3) secondary renal amyloidosis.

Task 55.

During pathological examination

surgical material in the upper lobe of the right

The lung under the pleura has a cavity 10 cm in diameter, filled with dirty gray, foul-smelling contents.

The walls of the cavity are gray-white and dense. Environment

The lung tissue within a radius of 3.5 cm is dense with whitish-gray layers, and then increased airiness, gray-pink, cut with a crunch.

1. What is your diagnosis?
2. What processes have developed in the surrounding lung tissue a), b)?

Sample answer: 1) chronic lung abscess; 2) a) pneumosclerosis; b) pulmonary emphysema.

Task 56.

In a patient suffering from chronic bronchitis, bronchoscopy revealed narrowing of the right lower lobe

bronchus, its mucous membrane is tuberous, gray-red. Histological examination of a biopsy of the bronchial wall revealed nested accumulations of epithelial cells with polymorphism and a large number of mitoses. In the center of the accumulations of epithelial cells there are homogeneous masses of horny substance.

1. What localized macroscopic form of tumor is present in this case?
2. What histological type of tumor was detected?
3. What causes the red color of the bronchial mucosa

Sample answer: 1) central lung cancer, 2) squamous cell carcinoma with keratinization, 3) hemorrhage into the tumor tissue.

Task 57.

A 48-year-old man underwent fibrogastroscopy of the stomach, which revealed thinning of the mucous membrane in all parts shell, smoothing its folds. A biopsy of the fundus mucosa was performed. Histological examination revealed focal thinning of the mucous membrane, a decrease in the number of glands, pseudopyloric and intestinal metaplasia integumentary pitted and glandular epithelium, lymphoplasmacytic infiltration and focal sclerosis of the native layer.

1. During histological examination, the pathologist diagnosed: 1) chronic atrophic gastritis
2. According to the localization of the process, such gastritis is called:
3. What microorganism most often causes this disease?

Sample answer: 1) chronic atrophic gastritis; 2) diffuse gastritis; 3) *Helicobacter pylori*.

Task 58.

During an autopsy of the corpse of a deceased 56-year-old woman, a tumor in the form of an ulcer 7.0 x 5.0 cm with dense ridge-like edges and a flabby grayish-yellow bottom was discovered in the rectum. The tumor grew infiltratively, growing through the entire intestinal wall to the serous membrane. Histological examination revealed that the tumor consists of randomly located glands lined with atypical epithelium with a large number of mitoses.

1. Your diagnosis:
2. What form of tumor was revealed by histological examination?
3. The first hematogenous metastases should be looked for in:
Sample answer: 1) rectal cancer; 2) adenocarcinoma; 3) lungs.

Task 59.

An autopsy of a 45-year-old man revealed liquid blood in the stomach and a chronic ulcer in the pyloric region, pallor of the skin, mucous and serous membranes, fatty degeneration of the liver and myocardium. The bone marrow of spongy and tubular bones is bright red.

1. What type of anemia did the patient develop?
2. Liquid blood in the lumen of the stomach sign:
3. Cause of bleeding?
Sample answer: 1) chronic posthemorrhagic anemia; 2) gastric bleeding; 3) vascular erosion at the bottom of the ulcer.

Task 60.

A 50-year-old woman suffering from obesity and hypertension suddenly developed pain in the right hypochondrium and girdling pain, nausea, and vomiting. The next day, upon examination, the doctor noted icterus of the sclera, pain in the right hypochondrium,

α-αμψλασε ιν βλοοδ. 400 υνιτσ/λ, Αλτ-1.7; Αστ-1.25 μ μολ/λ. Ον υλτρασουνδ: της γαλλβλαδδερ ισ ενλαργεδ, 6 ξ4 χμ, μανψ στονεσ, 0.5 χμ ιν Δ; διλατατιον οφ τηε εξτρ απεπατιχ βιλε δυχτσ ανδ α 0.5 χμ χαλχυλυσ ιν Δ ατ τηε μουτη οφ τηε χομμον βιλε δυχτ. Ενδοσχοπιχ χηολεχψσ τεχτομψ ανδ παπιλοτομψ ωερε περφορμεδ ωιτη ρεμοπω λ οφ τηε στονε φρομ τηε βιλε δυχτ ιν τηε παπιλλα οφ ζα τερ. Α ηιστολογιχαλ εξαμινατιον οφ τηε βλαδδερ ωαλλ ον τηε σερουσ μεμβρανε ρεπεαλεδ φιβρινουσ δεποσιτσ ανδ τηε μυχοσα ωασ φυλλ-βλοοδεδ, εδεματους ωιτη ηε μορρηαγεσ, ανδ ιν τηε ωαλλ τηερε ωασ διφφυσε λευκοχ ψτε ινφιλτρατιον ωιτη φοχι οφ πυρυλεντ μελτινγ.

1. Changes in the gallbladder correspond to:
2. Type of jaundice developed in the patient: what
3. What process in the pancreas complicated the course of the disease?

Sample answer: 1) acute phlegmonous calculous cholecystitis; 2) subhepatic(mechanical); 3) pancreatitis.

Task 61.

A 45-year-old man consulted a physician with complaints of nausea, periodic vomiting, heaviness in the right hypochondrium, and jaundice. These symptoms have been bothering him 2 years after he suffered from hepatitis, which developed in him 4 months after dental surgery. During examination, HbsAg was detected in the patient's blood, and

The pathologist found in the liver punctate hydropic degeneration and bridge-like necrosis of hepatocytes, focal proliferation of hepatic and Kupffer cells, cholestasis, lymphocytic infiltrates and fibrosis inside the lobules and along the portal tracts. No regenerated nodes or false lobules were found.

1. Changes in the liver correspond to:
2. The most important sign of process activity:
3. Probable outcome of the disease:

Sample answer: 1) chronic active viral hepatitis B; 2) necrosis of liver cells; 3) development of large-nodular (postnecrotic) cirrhosis of the liver.

Task 62.

A 40-year-old man with a history of alcoholism suddenly began vomiting dark blood. During examination in the hospital, the doctor noted ascites, dilation of the veins of the anterior abdominal wall, and splenomegaly. On ultrasound, the liver is enlarged in size, with diffuse changes. Blood test showed Hb – 70 g/l, Er – $2.3 \cdot 10^{12}$

/l. Despite resuscitation measures, the patient died 3 hours after the onset of vomiting. An autopsy revealed that the liver was enlarged in size, with a finely lumpy surface, yellow in color. On section, its tissue consisted of small nodules 0.3 cm in diameter separated by thin layers of whitish tissue.

1. What disease is found in the liver?
2. Cause of death of the patient:
3. Source of bleeding:

Sample answer: 1) alcoholic cirrhosis of the liver; 2) cause of death - acute posthemorrhagic anemia; 3)

the source of bleeding is varicose veins of the esophagus, as evidenced by vomiting dark blood.

Task 63.

A 10-year-old girl, 3 weeks after suffering from scarlet fever, began to complain of headaches, lower back pain, and puffiness of the face. An increase in blood pressure of 150/90 mm Hg was noted. Art. Urine became dark red. Urinalysis: Daily diuresis 450 ml, protein 500 mg/day, hyaline casts, a large number of leached red blood cells.

1. Your diagnosis:

2. What syndrome did the patient develop?

3. What histological form of the disease occurs? Reference

answer: 1) spiky poststreptococcal glomerulonephritis, 2) nephritic syndrome, 3) intracapillary proliferative glomerulonephritis.

Task 64.

In a 40-year-old man who died from sublimate poisoning, the following changes were found at autopsy: the kidneys are enlarged in size, flabby, the capsule is easily removed, the surface of the kidneys is smooth, pale pink, the border of the layers is emphasized in the section, the bark is pale pink 1.0 cm thick, pyramids dark red, swollen.

1. What process has been identified in the kidneys?

2. What changes in the tubular epithelium?

3. What causes the emphasized boundaries of the layers and the color of the pyramids?

Sample answer: 1) acute tubular necrosis of the kidneys, 2) coagulative necrosis of the convoluted tubule epithelium, 3) discharge of blood through arteriovenous shunts.

Task 65.

A 55-year-old man had suffered for 15 years diabetes mellitus type 2, oliguria began to increase, anasarca appeared, the level in the blood increased urea and creatinine.

1. What complication developed in the patient?
2. What changes in the glomeruli of the kidneys could lead to it?
3. Which changes could develop in tubular epithelium?

Reference answer: 1) chronic renal failure; 2) diabetic glomerulosclerosis;

- 3) hyaline-drip dystrophy, accumulation of glycogen.

Task 66.

A 70-year-old woman who had suffered from type 2 diabetes mellitus for 20 years developed pain in the 1st and 2nd toes of her left foot, and gradually the skin of the toes turned black, sensitivity in the fingers disappeared. After 2 days, the foot became swollen, bluish-red in color, in some places with foci of black necrosis without clear boundaries with the surrounding tissues.

1. What process has developed in the patient's lower limb?:
2. What complication was manifested by loss of sensitivity?
3. What pigment is responsible for the black color of necrotic foci?

Sample answer: 1) wet gangrene; 2) diabetic neuropathy; 3) iron sulfide (pseudomelanin).

Task 67.

A 45-year-old woman consulted a doctor with complaints of fatigue, weakness, facial pastiness, swelling

hands, legs and feet, constipation, enlarged thyroid gland. With cytological examination of gland puncture material revealed a large number of lymphocytes of varying degrees maturity, plasma cells, macrophages, which were located between thyrocytes, forming "felt-like" structures predominated epithelial cells with eosinophilic, granular cytoplasm (Ashkinasi-Hurthle cells). Clusters of fibroblasts and fibrocytes were observed. Atypical no cells were found.

1. Your diagnosis:

2. What change in gland function was detected in the patient?

3. What type of immunopathological reaction is caused by damage to thyrocytes in this disease?

Sample answer: 1) Hashimoto's thyroiditis; 2) hypofunction (hypothyroidism); 3) immunopathological reaction type 2.

Task 68.

In a 25-year-old woman, an ultrasound examination during a medical examination revealed a dense nodule with blood flow in the left lobe of the thyroid gland. Cytological examination of the puncture material revealed papillary lesions in the smear. structures from

atypical, polymorphic thyrocytes. Their nuclei are hyperchromic with indistinguishable nucleoli. In some cells, the nuclei have grooves, intranuclear cytoplasmic inclusions, or are light (optically empty).

1. Your diagnosis:

2. Further tactics of examination and treatment of the patient:

3. Specify the location of the first tumor metastases:

Standard *answer*: 1) papillary cancer
thyroid gland; 2) hemithyroidectomy
With mandatory histological research
material; 3) lymph nodes of the neck.

Task 69.

A 46-year-old man suffering from diabetes mellitus complains of headaches, dizziness, increased body weight and periodic rises in blood pressure up to 180/90 mm Hg. Art. revealed during examination bitemporal hemianopsia.

1. What process in the brain is diagnosed in the patient?
2. What hormonal disorders caused it?
3. What is this disease called?

Sample answer: 1) adenoma of the anterior pituitary gland (corticotropinoma); hyperproduction of ACTH; 3) Itsenko-Cushinoga disease.

Task 70.

In a 40-year-old patient, the thyroid gland began to increase in size, weight decreased, and irritability, tremor, interruptions in heart function, sleep disturbance, exophthalmos began to be noted. Ultrasound examination of the thyroid gland revealed an increase in both lobes and the isthmus; no focal changes were detected. Left ventricular myocardial hypertrophy and dilatation of its cavity were detected in the heart

1. What changes in thyroid function have been identified?
2. What thyroid disease caused the described changes?

3. What complication of the disease caused the heart changes?

Sample answer: 1) hyperthyroidism (thyrotoxicosis); 2) diffuse toxic goiter; 3) thyrotoxic cardiomyopathy.

Task 71.

In a 26-year-old woman, several months after childbirth, complicated by severe blood loss

Progressive exhaustion, melasma, and hypotension developed - Sheehan's syndrome.

1. Damage to which organ caused the development of the syndrome?

2. What bleeding complication was the trigger?

3. What is the name of the type of cachexia that developed in the patient? Reference *answer:* 1) pituitary gland; 2) DIC syndrome; 3) pituitary cachexia.

Task 72.

A 35-year-old patient had attacks for 2 years, accompanied by a sharp increase in blood pressure, headache, tremor, severe sweating, and nausea. During one of the attacks, the patient developed acute cerebrovascular accident. The patient died. At autopsy, it was found in the medulla of the left adrenal gland

a node with a diameter of 4 cm, brown in color on the section with areas of hemorrhage.

1. What tumor is found in the adrenal medulla?

2. What causes the brown color of the tumor at the site of hemorrhage?

3. What changes in the heart does arterial hypertension cause?

Sample answer: 1) pheochromocytoma; 2) formation of hemosiderin; 3) hypertrophy of the left ventricular myocardium.

Task 73.

A 45-year-old woman who consulted a gynecologist about uterine bleeding was found to have an enlarged, dense, tuberous uterus during examination. Supravaginal amputation of the uterus was performed. The uterus is large, in its wall, under the mucous membrane, there are multiple, clearly defined dense tumor nodes with a diameter of 1.5-7 cm, layered in section, whitish in color. Histologically, the tumor is composed of bundles of smooth muscle cells running in different directions.

1. Your diagnosis:

2. Tumor growth form:

3. Which location nodes Necessarily will cause uterine bleeding?

Sample answer: 1) leiomyoma; 2) expansive growth; 3) submucous location of the nodes.

Task 74.

A 60-year-old woman is in menopause and suffers from obesity, diabetes mellitus and arterial hypertension, metrorrhagia developed. A diagnostic curettage was performed. When examining endometrial scrapings, the pathologist discovered proliferation of randomly located glands lined with multirow epithelium with pronounced cellular atypia, giant

hyperchromic nuclei, numerous figures of pathological mitoses. Basement membranes in parts

glandular passages are destroyed. Foci of necrosis and ulceration were noted.

1. What disease did the pathologist diagnose?
2. What are the causes of metrorrhagia?
3. Specify the complication of bleeding:

Sample answer: 1) endometrial adenocarcinoma, 2) necrosis and ulceration of the tumor, 3) posthemorrhagic anemia.

Task 75.

A 30-year-old woman with a 4-week delay in menstruation suddenly developed sharp abdominal pain, spotting vaginal discharge, cold sweat, and blood pressure dropped to 60/10 mm Hg. During puncture of the posterior fornix, blood was found in the pelvic cavity (not changed red blood cells). Ultrasound revealed an enlargement of the right fallopian tube.

1. What process has developed in the abdominal cavity?
2. Most likely cause of bleeding?
3. Indicate the fatal complications of this condition:

Sample answer: 1) ectopic tubal pregnancy, 2) rupture of the fallopian tube, 3) acute posthemorrhagic anemia, peritonitis.

Task 76.

A 65-year-old man began to notice difficulty urinating, then lower back pain appeared, the temperature rose, the urine became cloudy with admixture of pus. During a digital examination of the rectum, the doctor discovered that the prostate gland was enlarged in size, dense with tuberos surface.

1. What pathological processes in the prostate gland could cause this clinical picture?

2. What complications of prostatopathy caused the increase in temperature, lower back pain, and changes in urine?

3. What research method will allow us to clarify the diagnosis with maximum certainty?

Sample answer: 1) dishormonal hyperplasia, prostate cancer, 2) cystitis, ascending tubulo-interstitial nephritis (pyelonephritis), 3) puncture biopsy of the prostate gland.

Task 77.

A 28-year-old woman, 3 weeks after a mini-abortion, developed bleeding from the genital tract.

Upon examination, the gynecologist noted an enlarged uterus and the presence of a red node in the vagina. A diagnostic curettage was performed and a biopsy was taken from the node.

The pathologist, examining the biopsy material, noted the similarity of changes in the body of the uterus and in the vagina. Tissue consisting of proliferating cytotrophoblast cells and polymorphic giant cells of syncytiotrophoblast with many normal and pathological mitoses. There was no stroma, and the cavity-like vessels were lined with atypical trophoblast cells.

1. What is your diagnosis?

2. What changes are found in the cervix?

3. Name the complications of bleeding: Standard

answer: 1) chorioepithelioma of the uterus, 2)

lymphogenous tumor metastasis, 3) acute

posthemorrhagic anemia, disseminated intravascular coagulation syndrome.

Task 78.

A 48-year-old woman noted a gradual enlargement of her abdomen. Gynecologist with manual and ultrasound

studies revealed ascites and enlargement of the uterine appendages on both sides, filling the pelvic cavity.

During the operation it was found that both ovaries are cysts measuring 15 x 12 x 10 cm, containing thick jelly-like mucus. On the inner surface of the cysts and on the peritoneum there are whitish-gray papillary growths that look like cauliflower with yellow areas of necrosis and hemorrhages.

1. What disease is diagnosed in the patient?
2. Ascites and changes in the peritoneum are caused by:
3. What fabrics do you need to take? pathological examination to establish a final diagnosis?

Sample answer: 1) mucinous papillary ovarian cystadenocarcinoma; 2) implantation tumor metastases; 3) cyst wall with papillae.

Task 79.

During a histological examination of a biopsy specimen from a plaque-like formation of the vaginal part of the cervix (0.7 cm in the greatest dimension), the pathologist discovered a thickening of the layer flat epithelium, violation of its division into layers, loss of polarity and complexity, pronounced cell atypia, koilocytosis, keratinization, a large number of mitoses, including pathological ones.

Atypical cells surrounded by a lymphocytic infiltrate penetrated the subepithelial layer to a depth of 3 mm.

1. What disease did the pathologist diagnose?
2. Specify the stage of the disease:
3. Koilocytosis and lymphocytic infiltration signs:

Sample answer: 1) squamous cell carcinoma of the cervix;
2) first stage of tumor; 3) HPV infections.

Task 80.

A 26-year-old woman experienced severe gestosis in the pre- and postpartum period. On the 4th day

After giving birth, she lost consciousness and, with increasing symptoms of hepatic-renal failure, died.

1. What is your diagnosis?
2. Which organ lesions caused the clinical picture?
3. Name the pathological processes that have developed in these organs:

Sample answer: 1) eclampsia; 2) brain, liver, kidneys; 3) necrosis, hemorrhages caused by DIC syndrome.

Task 81.

On the second day after childbirth, a woman's body temperature suddenly increased to 41 C, chills developed, pinpoint hemorrhages appeared on the skin and mucous membranes, and jaundice. Two days later the patient died. At autopsy, in addition to those described changes, found pronounced changes internal organs. The spleen is enlarged, flabby, with abundant scraping of the pulp. The uterus is enlarged size, flabby, dirty gray mucous membrane with a purulent coating. Foci of purulent inflammation in the lungs and kidneys.

1. What pathological process has developed in the uterus?
2. What clinical and morphological form of sepsis can you think about?
3. What changes in the vessels of the uterus contributed to the spread of the infectious agent?

Sample answer: 1) a purulent infection has developed in the uterus endometritis; 2) septicopyemia, as evidenced by the presence of metastatic purulent foci in the lungs and kidneys; 3) purulent thrombophlebitis of the uterine veins contributed to the spread of the process.

Task 82.

A premature baby developed purulent-necrotic omphalitis after treatment of the umbilical cord. State

The patient began to deteriorate progressively and died on the 4th day. At autopsy in the umbilical lumen blood clots were found in the vessels. The skin and sclera are icteric. Multiple hemorrhages on the skin, mucous and serous membranes. The spleen is enlarged and produces abundant pulp scraping.

1. Diagnose the disease.
2. Specify the clinical and anatomical form of the disease.
3. What is associated with the development of hemorrhagic syndrome?

Sample answer: 1) umbilical sepsis; 2) septicemia; 3) multiple hemorrhages on the skin and mucous membranes are caused by DIC syndrome.

Task 83.

A 3-year-old child has an increase in body temperature to 38°C, malaise, and decreased appetite. Hoarseness of voice appeared, the cough acquired a rough, barking character, breathing was difficult, and signs of asphyxia were increasing. Bronchoscopy revealed yellow films lining the larynx and the upper third of the trachea. The films in some places freely separate from the mucous membrane, closing the lumen of the respiratory tract. A tracheotomy cannula is inserted. After a few days, my lungs began to feel

listen to wet wheezing. Pneumonia was diagnosed.

1. Specify the underlying disease.
2. What type of inflammation has developed in the larynx and trachea?
3. Explain the mechanism of development of asphyxia.

Sample answer: 1) diphtheria of the larynx and trachea; 2) fibrinous (lobar) inflammation; 3) obstruction of the larynx and trachea by rejected fibrin films led to asphyxia.

Task 84.

A 5-year-old child developed headache, agitation, restlessness, vomiting, and body temperature increased to 39°C. After 3 days the child died. At the autopsy, it was found that the pia mater was significantly thickened, with full-blooded vessels, and saturated with a thick greenish-yellow exudate throughout. The pattern of furrows and convolutions of the brain is smoothed. In a smear from the surface of the meninges, grammatical diplococci were found in the cytoplasm of neutrophilic leukocytes.

1. Define clinical and morphological form of the disease.
2. What is the etiology of the disease?
3. What pathological process has developed in the meninges?

Sample answer: 1) meningococcal meningitis; 2) meningococcal infection; 3) acute purulent inflammation.

Task 85.

A 5-year-old child was admitted to the children's infectious diseases hospital on the second day from the moment of illness. On admission, high fever and lethargy were noted.

An examination of the oral cavity revealed bright hyperemia of the mucous membrane of the soft palate, uvula, palatine arches, and root of the tongue. The tonsils are enlarged and bright red. The lymph nodes of the neck are enlarged, dense, painful on palpation. The skin is hyperemic, with a pinpoint rash. On the 5th day of illness, dirty-gray, dull-looking deposits appeared on the surface of the tonsils.

1. What is your diagnosis?
2. Name the causative agent of the disease:
3. Specify the nature of inflammation of the tonsils and mucous membranes:

Sample answer: 1) scarlet fever; 2) group A streptococci; 3) catarrh.

Task 86.

A 36-year-old man had enlarged lymph nodes in the groin area, up to 1 cm in diameter, one of them was removed for pathological examination. Histological examination revealed:

lymphoid follicles hyperplastic, the tissue of the lymph node is infiltrated with plasma cells, there are accumulations of epithelioid cells, sinus-histiocytosis is pronounced; signs of endo- and perivasculitis.

1. What disease can you think of?
2. What stage of the disease occurs?
3. What else can be found in the patient's groin area?

Sample answer: 1) syphilitic lymphadenitis; 2) primary; 3) chancre.

Task 87.

At autopsy, in a 40-year-old man who had suffered from tuberculosis for a long time in the 2nd, 3rd and 8th segments of the right lung

2 cavities with a diameter of 6.0 cm and 3.2 cm were found, filled with liquid blood. The inner surface of the larger cavity, in the upper lobe, is uneven with

intersecting dense strands, covered with whitish-yellow crumbling masses, under

with dense whitish tissue 0.5 cm thick. A smaller cavity in the lower lobe with a thin wall 0.3 cm thick represented by whitish-yellow crumbling masses. Throughout the rest of the

tissues of both lungs lesions 0.5 – 1.0 in diameter represented by similar masses. The lumens of the bronchi and trachea are filled with liquid blood.

1. Define clinical and morphological form of the disease.

2. Which complication developed With progression of the disease?

3. State the immediate cause of death.

Sample answer: 1) fibrous-cavernous pulmonary tuberculosis; 2) pulmonary hemorrhage; 3) asphyxia.

Questions for an interview. There are 13 questions in total.

Task 88.

Name the macroscopic changes in arterial walls during atherosclerosis, reflecting the dynamics of the process (stages).

Sample answer: with atherosclerosis, the following changes consistently develop in the walls of the arteries, reflecting the dynamics of the process: fatty spots or stripes, fibrous plaques, complicated lesions (atheromatosis, hemorrhages, ulceration, thrombosis), calcification (atherocalcinosis).

Task 89. The development of the alveolar-capillary block in pulmonary emphysema is caused by the following pathological processes:

Sample answer: we destroy the elastic framework of the alveoli and rupture the interalveolar septa; expansion of the alveoli and alveolar ducts; fibrosis of the interalveolar spaces, reduction of the capillary network of the lung stroma

Task 90. What changes in the lungs are observed in chronic left ventricular failure?

Sample answer: With chronic left ventricular failure, brown induration develops in the lungs: chronic venous congestion, stasis, sludge of erythrocytes, edema, diapedetic hemorrhages, hemosiderosis and sclerosis of the interalveolar septa.

Task 91. Name the sequential changes in the patient's organs with chronic right ventricular failure:

Sample answer: With chronic right ventricular failure, chronic venous congestion develops in the organs. Edema of the lower extremities, nutmeg liver, cyanotic induration of the kidneys and spleen, ascites, hydrothorax, hydropericardium, anasarca, and cerebral edema consistently develop.

Task 92. What changes in the lungs are observed during acute left ventricular failure?

Sample answer: When Acute left ventricular failure in the lungs develops: acute venous congestion, stasis, sludge of red blood cells, edema, diapedetic hemorrhages.

Task 93. Name the components of the primary septic focus.

Sample answer: the primary septic focus consists of a focus of purulent inflammation with tissue melting, purulent thrombophlebitis and lymphangitis.

Task 94. Major signs of portal hypertension:

Sample answer: ascites, splenomegaly, varicose veins of portacaval anastomoses.

Exercise 95. Describe macro and microscopic changes in the spleen in chronic myeloid leukemia: Standard answer: The spleen is enlarged, weighing more than 3 kg, dense, With white outbreaks heart attacks. With histological research noted substitution lymphoid follicles with leukemic infiltrates predominantly from promyelocytes, myelocytes, a few blasts.

Task 96. When scarring and replacing a defect, first with granulation and then with dense fibrous connective tissue, the following changes occur sequentially:

Response standard:

1. angiogenesis;
2. migration and proliferation of fibroblasts;
3. production of extracellular (extracellular) matrix;
4. maturation of granulation tissue and its transformation into dense fibrous connective tissue (scar).

Task 97. What cells are affected by the human immunodeficiency virus (HIV)?

Sample answer: The human immunodeficiency virus (HIV) infects cells with CD4 receptors: helper T lymphocytes (CD4+), monocytes, macrophages, dendritic cells, microglial cells, intestinal epithelial cells.

Task 98. Indicate the components of the primary tuberculosis complex and its unfavorable outcomes:

Sample answer: primary tuberculous affect, lymphangitis, lymphadenitis; growth of the primary focus, lymphogenous and hematogenous spread with generalization, chronic course.

Task 99.

Specify pathological
 signs hematogenous disseminated
pulmonary tuberculosis:

Sample answer: predominantly corticopleural localization of lesions in both lungs; productive tissue reaction; development of reticular pneumosclerosis and emphysema; hypertrophy of the right ventricle of the heart (cor pulmonale); extrapulmonary tuberculosis foci.

Task 100.

List the complications that arise in the 2nd period of scarlet fever:

Sample answer: In the 2nd period of scarlet fever the following may develop: rheumatism, acute and chronic

poststreptococcal glomerulonephritis, warty endocarditis, serous arthritis, vasculitis.

CRITERIA for assessing competencies and rating scales

<p>Grade "unsatisfactory "really" (not accepted) or lack of competence development</p>	<p>Grade "satisfactory" (passed) or satisfactory (threshold) level mastering competence And</p>	<p>Grade "Fine » (passed) or sufficient level of competence development</p>	<p>Grade "excellent" (passed) or high level of development competence</p>
<p>The student's inability to independently demonstrate development knowledge when solving tasks, lack of self-awareness in application skills. Absence</p>	<p>The student demonstrates independent skill in applying knowledge, skills and abilities to solve educational tasks in full</p>	<p>The student demonstrates independent application of knowledge, skills and abilities at decision tasks, tasks</p>	<p>The student demonstrates ability to complete independence in choice way to solve non-standard tasks in</p>

<p>confirmI have availability formation certificate of competenceo about negative results mastering education al disciplines</p>	<p>compliancewi th the sample given teachereat, by tasks whose solution was shown teacherwe should assume that competence is formed on satisfactory level.</p>	<p>similar samples that confirms the presence of formed competenc etions on at a higher level. Availability of such competen tions on sufficientT his level indicates a stable assigned by nom practically skill</p>	<p>within the discipliness using knowledge, skills and abilities acquired both in progress mastering this disciplines and related disciplines , should be considered competenc e formedAnn a at a high level.</p>
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Criteria for assessing test control:

<p>percentage of correct answers</p>	<p>Marks</p>
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91-100	Great
81-90	Fine
70-80	satisfactorily
Less than 70	unsatisfactory

When grading tasks with multiple correct answers, one error is allowed.

Evaluation criteria for individual forms of control must be selected based on those prescribed in paragraph 2.

Interview assessment criteria:

Mark	Descriptors		
	strength of knowledge	Ability to explain (represent) the essence of phenomena, processes, draw conclusions	Logicalness and subsequence answer
Great	strength of knowledge, knowledge basic processes of the subject area being studied, answer is different	high skill explain the essence, phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples	high logic and response sequence

	<p>depth and completeness disclosure of the topic; possession terminological apparatus; logic and follow flatness of answer</p>		
Fine	<p>solid knowledge basic processes of the subject area being studied, differs depth and completeness disclosure of the topic; possession terminological apparatus; fluency in monologues what speech, however</p>	<p>the ability to explain the essence, phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; however, one or two inaccuracies in the answer are allowed</p>	<p>logic and response sequence</p>

	allowed one or two inaccuracies in answer		
Satisfactory	satisfactory knowledge of the processes of the subject area being studied, the answer differs insufficiently in the depth and completeness of disclosure Topics; knowledge of basic issues theory. There are several additional errors in content of the answer	satisfactory ability to give reasoned answers and give examples; satisfactorily formed analysis skills phenomena, processes. There may be several errors in the content of the answer	satisfactory logic and response sequence
unsatisfactory	poor knowledge of subject area being studied, shallow	inability to give reasoned answers	lack of logic and follow leniency of answer

	disclosure Topics; poor knowledge basic questions of theory, poor skills in analyzing phenomena, processes. AllowedI have serious mistakes in content of the answer		
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Criteria for assessing situational tasks:

Mark	Descriptors			
	understandi ng the problem	analysis of the situation	situation solving skills	professio nal thinking tion
Great	full understanding of the problem. All requirements, presentwashed to	high ability to analyzeb situation, do conclusions	high ability to choose method solutions problems, sure	high level of professio nalism I'm thinking

	task completed		solution skills situations	
Fine	full understanding of the problem. All demands you made washed to task completed	ability to analyze situation, do conclusions	ability to choose method problem solving confident skills solutions to the situation	sufficient level of professional I think. Allowed here are one or two inaccuracies in answer
works satisfactorily	partial understanding of the problem. Majority requirements you presented go to task completed	will satisfy spruce ability to analyze situation, do conclusions	satisfying skills solutions to the situation, difficulties with choosing a method problem solving	sufficient level of professional I think. Allowed here are more than two inaccuracies in the answer or an error in afterbirth

				activity and solutions
unsatisfactory	misunderstanding problems. Many demands you made to task not completed. No answer. There was no attempt To solve the task	low ability to analyze the situation	insufficient skills solutions to the situation	absent