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ФИО: Косенок Сергей Михайлович  
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## Assessment tools for midterm assessment

### “Pathologic Anatomy”

<b>Curriculum</b>	31.05.01
<b>Specialty</b>	General Medecine
<b>Form of education</b>	Full-time
<b>Designer Department</b>	Pathophysiology and general pathology
<b>Graduate Department</b>	Internal Diseases

### Sample tasks and tests

Writing an essay involves an in-depth study of the indicated problem.

An abstract (from Latin *refero* - I report) is a special essay in which the goals, objectives and conclusions are defined, setting out the main provisions of the topic or problem.

The topics of the abstracts are presented in the collection of learning assessment materials and in educational tools for self-study of the intern of the corresponding curriculum.

Abstracts are reported at the lesson according to the chosen topic and the calendar-thematic plan, they are handed over to the teacher strictly on time.

The summary of the selected information should be embedded in the text in accordance with a certain logic. The abstract consists of three parts: introduction, main part, conclusion;

a) in the introduction, it would be logical to justify the relevance of the topic (why this topic was chosen, how it is connected with modernity and science);

purpose (should correspond to the topic of the abstract);

tasks (ways to achieve a given goal) are displayed in the title of paragraphs of work;

b) in the main part, a description and analysis of the topic of the abstract as a whole is given, and then a concise presentation of the selected information in accordance with the tasks set.

At the end of the chapter, a conclusion (sub-conclusion) should be made, which begins with the words: “Thus ...”, “So ...”, “In conclusion of the chapter, we note ...”, “All that has been said allows us to conclude ...”, “Summing up ...”, etc.

c) the conclusion contains conclusions on chapters (1-1.5 sheets). It is appropriate to express your point of view on the problem under consideration.

The abstract can be presented in the form of a presentation, while it is mandatory to fulfill the basic requirements for the abstract, including the correctness of the list of references!

The disclosure of the topic of the abstract assumes the presence of several specialized sources (at least 8-10 publications, monographs, reference books, textbooks) as a source of information. Preference is given to publications in specialized journals and a monograph of recognized experts in the relevant field of knowledge. It is obligatory to use foreign literature.

## CONTROL WORK - AN ABSTRACT (TERM 5)

### List of abstract messages:

1. Antiphospholipid syndrome.
2. Clinical situations most often complicated by thrombosis.
3. Multiple organ failure syndrome.
4. Decompression sickness (caisson sickness).
5. Specific granulomatous inflammation.
6. Granulomatous diseases.
7. Transplants: types of transplants, transplant rejection (hyperacute, acute, chronic). Graft-versus-host disease.
8. HIV infection.
9. Amyloidosis.
10. Atrophy (causes, mechanisms of development, clinical significance).
11. Melanoma.
12. Paraneoplastic syndromes.
13. Marfan's syndrome.
14. Cystic fibrosis.
15. Phenylketonuria.
16. Non-infectious fetopathy.
17. TORCH infections.
18. Sudden infant death syndrome.
19. Newborn respiratory distress syndrome

## CONTROL WORK - AN ABSTRACT (TERM 6)

1. Hypertrophy of the left ventricle of the heart (causes, stages, clinical significance).
2. Arrhythmogenic cardiomyopathy
3. Barrett's esophagus.
4. Menetrier's disease.
5. Viral hepatitis B.
6. Viral hepatitis C.
7. Cervical ectopia, squamous metaplasia.
8. Pheochromocytoma.
9. Clinical morphology of the lungs.
10. Diseases of the pleura.
11. Acute and chronic cor pulmonale.
12. Paraneoplastic syndromes in lung cancer.

## SAMPLE TASKS FOR THE EXAM (TERM 6)

The midterm assessment takes place in the form of an exam. The exam tasks contain 3 theoretical questions, 1 situational task and 1 practical question (description of micropreparations).

Assignment for the evaluation indicator of the descriptor "Know"	Type of task
Form detailed answers to the following theoretical questions: 1. Features of metastasis - lymphogenous, hematogenous and implantation metastases. 2. Acute pancreatitis. Pathogenesis. Forms of acute pancreatitis. Features of the morphological substrate - macro- and microscopic description of acute pancreatitis. clinical features. Complications. 3. Nonspecific ulcerative colitis. Causes. Features of patho- and	- theoretical

morphogenesis. outcomes and complications. clinical significance.

4. Barrett's esophagus. Causes, morphological manifestations. clinical significance.
5. Diseases of the cervix: pseudo-erosion, CIN I-III degree (cervical intraepithelial neoplasia), cervical cancer. Morphological manifestations. clinical significance.
6. Peptic ulcer. Etiology. Pathogenesis. morphological substrate. Complications.
7. Chronic gastritis. Etiology, patho- and morphogenesis. Clinical and pathogenetic variants of chronic gastritis. clinical significance.
8. Diseases of the male reproductive system. General characteristics.
9. Cancer of the stomach. Epidemiology. precancerous conditions. The concepts of dysplasia, intestinal metaplasia and enterolization. Features of two variants of gastric carcinogenesis - the development of intestinal (intestinal type cancer) and diffuse gastric cancer (ring cell carcinoma). Crohn's disease. Causes. Characteristics of the. morphological substrate - macro- and microscopic changes. Features of clinical manifestations, outcomes, complications.
10. Diseases of the prostate: benign prostatic hyperplasia, prostatic intraepithelial neoplasia, prostate cancer. Morphological picture.
11. Lung cancer. Epidemiology. Risk factors. Features of patho- and morphogenesis of central and peripheral lung cancer, main histological variants. Features of clinical manifestations.
12. Rheumatic diseases. Rheumatism (endocarditis, myocarditis, pericarditis, rheumatic vasculitis and polyarthritis). Pathogenesis, features of morphological manifestations. Outcomes, complications.
13. Alcoholic lesions of the liver.
14. Jaundice. Types of jaundice. clinical significance.
15. Chronic pancreatitis. Etiology, pathological anatomy. Clinical manifestations. Pancreas cancer.
16. Glomerular diseases. The main tissue reactions in the glomeruli of the kidneys. Glomerulopathies - primary, secondary (examples), basic terms for describing glomerulopathies.
17. The main syndromes in kidney diseases: nephrotic, nephritic, acute renal failure, chronic renal failure, uremia, structural changes underlying them.
18. Respiratory distress syndrome in adults. Causes, pathogenesis, clinical manifestations, principles of pathogenetic therapy.
19. Pulmonary hypertension. Primary and secondary. Causes, pathogenesis. Clinical and morphological manifestations.
20. Perinatal pathology. The main groups of pathological processes. Syndrome of respiratory disorders of the newborn.
21. PE (pulmonary embolism). Causes, clinical and morphological manifestations. Outcomes and complications Colorectal cancer (colon cancer). Epidemiology. precancerous conditions. Localization of the tumor, the nature of growth, the predominant histological type.
22. Epithelial tumors: benign and malignant. The principle of classification. Differences: benign and malignant tumors.
23. Portal hypertension. Causes, clinical and morphological manifestations.
24. Diseases of the thyroid gland. Thyroiditis.
25. Diseases of the thyroid gland. Goiter.
26. Tubulointerstitial lesions. Acute and chronic tubulointerstitial

nephritis. Pathological anatomy. outcomes and complications.

27. Diseases of the body of the uterus (endometrial hyperplasia, endometrial cancer, uterine leiomyoma, endometriosis).

28. The value of the phase of alteration. Classification of inflammatory mediators.

29. Congenital heart defects.

30. Pulmonary hypertension primary and secondary. Causes, pathogenesis, clinical and morphological manifestations. Outcomes.

31. Inflammatory vascular lesions - vasculitis. Classification, etiology, pathogenesis. Main diseases of the group: periarteritis nodosa, Churgy-Strauss syndrome, giant cell temporal arteritis, arteritis Takayasu, Wegener's granulomatosis, thromboangiitis obliterans (Buerger's disease), Raynaud's disease and syndrome.

32. Chronic inflammation: causes, pathogenesis scheme, morphological picture. Clinical significance of chronic inflammation. The concept of dysregeneration, its clinical significance.

33. Repair as the final phase of inflammation, repair components. Dysregeneration, its clinical significance.

34. Features of the pathogenesis and morphological manifestations of adult respiratory distress syndrome and cardiogenic pulmonary edema. Features of medical tactics.

35. Diseases of the pituitary gland. Hypo- and hyperpituitarism.

36. The most important general pathological processes. Their general characteristics, biological and clinical significance.

37. Repair as the final phase of inflammation, repair components. Dysregeneration, its clinical significance.

38. Features of the pathogenesis and morphological manifestations of adult respiratory distress syndrome and cardiogenic pulmonary edema. Features of medical tactics.

39. Diseases of the pituitary gland. Hypo- and hyperpituitarism.

40. The most important general pathological processes. Their general characteristics, biological and clinical significance.

41. Shock definition, types, mechanisms of development, stages, morphological characteristics, clinical manifestations.

42. DIC.

43. Breast cancer. Epidemiology, risk factors, patho- and morphogenesis. Morphological types of breast cancer. Clinical manifestations. prognosis and long-term results of treatment

44. Necrosis. Pathogenetic variants, clinical and morphological forms of necrosis. Examples. What is fibrinoid necrosis. outcomes of necrosis.

45. Cell damage: damaging factors, main cellular targets and mechanisms of damage. Reversible and irreversible cell damage

46. Cell damage: features of cell damage during hypoxia (anoxia). When reversible changes become irreversible, signs of irreversible cell damage. What nuclear changes indicate cell death? Types of irreversible cell damage.

47. Apoptosis. Definition, causes of development, manifestations (light, electron microscopy), differences from necrosis. General pathological and clinical significance (examples).

48. General ideas about cell damage - dystrophy, necrosis and apoptosis of the cell. Examples. clinical significance.

49. Compensatory-adaptive processes. hypertrophy and hyperplasia. Definition. Causes. Features of manifestations. stages of hypertrophy. clinical significance. Hypertrophy of the myocardium of the left ventricle.

50. Necrosis - definition, pathogenetic variants. Types of necrosis. Clinical manifestations and significance.

51. Compensatory-adaptive processes - definition, manifestations, clinical significance (clinical examples).

52. Definition of a malignant tumor. Molecular mechanisms of tumor transformation. The main properties of a malignant tumor.

53. Cell as a structural unit of the pathological process. Reversible and irreversible damage, the role of  $Ca^{++}$  in damage. What clinical and laboratory signs reflect irreversible cell damage.

54. Repair, regeneration and wound healing. Regeneration: definition, essence, biological and clinical significance, association with inflammation, outcomes. Components of the healing process. Kinetics of wound healing.

55. Regeneration - definition, types, essence and biological significance. Association with inflammation. The value of regeneration and dysregeneration in pathology.

56. Tumor growth. Epidemiology of tumors. Theories of carcinogenesis. Carcinogenesis - the molecular basis of carcinogenesis. The main properties of a malignant tumor.

57. Acute inflammation. Causes, mechanisms of development. Phases of acute inflammation. Types of inflammation. clinical significance.

58. Prenatal pathology. Periodization. Types and mechanisms of development of pathology of each period. clinical significance.

59. Chronic inflammation. Definition. Classification. Causes, mechanisms of development. Differences from acute inflammation. Clinical Significance.

60. Tumors. Definition, role in human pathology. Nomenclature and principles of classification. Importance of biopsy in oncology. Benign and malignant tumors, their comparative characteristics.

61. Cell trophism - definition, mechanisms. The concept of dystrophy, mechanisms of development. Types of dystrophy. clinical significance.

62. Characteristics of the tumor process. Local and general effects of the tumor on the body (cancerous cachexia, paraneoplastic syndromes, antitumor immunity).

63. Pathological anatomy (pathology) - definition, tasks, object and methods of research. Significance for the clinic.

64. Definition of a malignant tumor. Tumors are benign and malignant. Comparative characteristics. Theories of carcinogenesis. Morphogenesis of tumor growth.

65. Mesenchymal tumors: benign and malignant. Principles of classification. General characteristics, differences from epithelial tumors.

66. The concept of metaplasia and dysplasia. Examples, microscopic manifestations. clinical significance.

67. Atrophy as a general pathological process. Definition, causes, types of atrophy. Clinical significance, examples

68. Inflammation as a general pathological process. Stereotypical schemes of (classical) acute, chronic and immune inflammation. Clinical

significance of inflammation.

69. Pigment metabolism disorders. Exo- and endogenous pigments, types and mechanism of formation of endogenous pigments. Morphological characteristics and diagnostic methods.

70. Immunopathological processes. immune inflammation. Hypersensitivity of immediate type (I, II, III type), hypersensitivity of the delayed type. Stereotypical scheme of immune inflammation. General characteristics.

71. Diabetes mellitus. Classification. Clinical and morphological manifestations, complications.

72. Five groups of morphological changes in liver damage. Intracellular accumulations in hepatocytes (fatty hepatitis, hemachromatosis, bile retention in hepatocytes, etc.).

73. Hepatocellular insufficiency. Causes. Clinical and laboratory manifestations of hepatocellular (hepatocellular) insufficiency, its structural and functional basis.

74. Circulatory disorders. Classification. Venous congestion in the portal vein system (portal hypertension). Pathogenesis and clinical and morphological manifestations.

75. Thrombosis. Definition, local and general factors, thrombosis. Types and morphological characteristics of blood clots. Thrombosis of veins, arteries, blood clots in the cavities of the heart. Clinical significance and outcomes.

76. Ischemia. Definition, causes, mechanisms of development, morphological characteristics and clinical significance. Acute and chronic ischemia (examples).

77. The main provisions of the doctrine of the diagnosis. Diagnosis. Definitions. structure of the diagnosis. Combined underlying disease (competing, combined, background diseases).

78. Acquired immunodeficiency syndrome (AIDS). Epidemiology, etiology, transmission routes. Patho- and morphogenesis. Clinical and morphological characteristics. AIDS-associated diseases: opportunistic infections, tumors.

79. Basic provisions of the doctrine of diagnosis. Diagnosis. Definition. Principles of comparison of clinical and pathoanatomical diagnoses.

80. Divergence of diagnoses. Causes and categories of discrepancies in diagnoses. The value of clinical and anatomical conferences.

81. Granulomatous inflammation. General characteristics. specific granulomas. The concept of granulomatous diseases.

82. General characteristics of prenatal pathology. Pathogenetic mechanisms of formation of pathology of each of the periods.

83. Acute inflammation. Determining the cause. Classification. Phases of acute inflammation, patho- and morphogenesis. Clinical and morphological forms.

84. Sepsis as a special form of infection development, differences from other infections. classification of sepsis. Clinical and morphological forms of sepsis: septicemia, septicopyemia, septic endocarditis.

85. Diseases of the adrenal glands. Myocarditis. Definition. Classification. Morphological substrate - macro- and microscopic description. Features of clinical manifestations. Outcomes, complications.

86. Cardiomyopathy and myocarditis - definition, features of the

morphological substrate. primary cardiomyopathy.

87. General classifier of heart diseases. Pathogenetic features of groups. Pneumonia. Definition. Causes. Clinical and pathogenetic variants of pneumonia. 84. Features of their morphological substrate. outcomes and complications.

88. Atherosclerosis. Epidemiology. Risk factors. Stages of patho- and morphogenesis of atherosclerosis. The main clinical forms of atherosclerosis. outcomes and complications.

89. General characteristics of the COPD group, general scheme of morphogenesis. bronchiectasis.

90. Ischemic heart disease: definition, risk factors. Chronic forms of ischemic heart disease. Hibernating myocardium.

91. Endocarditis. Classification. Bacterial endocarditis. Causes. Patho- and morphogenesis. Features of clinical manifestations. Complications and outcomes.

IHD. General characteristics of the group. Sudden coronary death.

92. Hypertension. Pathogenesis. Stages of hypertension, morphological manifestations. Complications and outcomes.

93. Comparative group characteristics of diffuse lung diseases - COPD and DILD. General patterns of COPD and DILD morphogenesis, features of their patho- and morphogenesis.

94. Acute and chronic venous congestion in the pulmonary circulation. Causes, patho- and morphogenesis. The concept of "brown induration of the lungs".

95. Tuberculosis. Epidemiology, etiology, patho- and morphogenesis. secondary tuberculosis. Morphological characteristics, complications, outcomes, causes of death.

96. Acute and chronic cor pulmonale. Causes. Pathogenesis, clinical manifestations.

97. IHD: general characteristics of the group. Sudden coronary death. reperfusion syndrome.

98. IHD: angina pectoris and myocardial infarction. Features of patho- and morphogenesis. Complications of myocardial infarction. Dressler Syndrome.

99. Diffuse interstitial lung diseases. Group characteristic, general scheme of pathogenesis. Stages of development. Pneumoconiosis. Silicosis.

100. Rheumatic diseases. Systemic lupus erythematosus. Pathogenesis. Features of organ manifestations.

101. Tuberculosis. Epidemiology, etiology, patho- and morphogenesis. Clinical and morphological forms of secondary tuberculosis. Complications, outcomes, causes of death.

102. Rheumatic diseases. General characteristics of the group. Nodular periarteritis. Causes of patho- and morphogenesis. Complications. Exodus.

103. Rheumatic diseases. Systemic scleroderma. Morphogenesis. Features of organ manifestations. CREST is a syndrome. Outcomes.

104. Rheumatic diseases. Dermatomyositis. Etiology, patho- and morphogenesis. Complications, outcomes.

105. COPD. General characteristics of the group. COPD Obstructive emphysema. Causes. Patho- and morphogenesis. Reversible and irreversible mechanisms of bronchial obstruction.

<p>106. IHD. Sharp forms. Patho- and morphogenetic features of acute forms.</p> <p>107. Cardiomyopathy. Definition. Classification. Secondary cardiomyopathies.</p> <p>108. Rheumatic diseases. Sjögren's disease.</p> <p>109. Preeclampsia. Eclampsia. Causes, clinical manifestations, morphological changes in organs.</p> <p>110. Stagnation in the systemic circulation. Causes, pathogenesis, morphological changes in organs.</p> <p>111. 62. General characteristics of the COPD group. Bronchial asthma. Reversible and irreversible mechanisms of bronchial obstruction.</p> <p>112. Coronary atherosclerosis as one of the clinical forms of atherosclerosis. Acute forms of coronary artery disease.</p> <p>113. Tuberculosis. Epidemiology, etiology, patho- and morphogenesis. primary tuberculosis. Morphological characteristics, complications, outcomes.</p> <p>114. General characteristics of the group "diffuse interstitial lung diseases". Pneumoconiosis (patho- and morphogenesis on the example of silicosis or anthracosis).</p> <p>115. Diseases of the myocardium. Classification, morphological characteristics. General data on cardiomyopathies and myocarditis.</p> <p>116. Diffuse interstitial lung diseases. General clinical and morphological characteristics of the group, the general scheme of pathogenesis. Idiopathic fibrosing alveolitis (ELISA).</p> <p>117. Pericarditis. Causes, classification, manifestations, clinical significance.</p> <p>118. IHD, general characteristics of the group, acute and chronic forms of IHD. Myocardial infarction.</p> <p>119. Leukemias. Classification, general clinical and morphological characteristics. Differences from lymphomas. Modern diagnostic methods.</p> <p>120. Atherosclerosis and arteriosclerosis (morphological characteristics). Hyaline and hyperplastic arteriolosclerosis: features of the initial pathogenesis, morphological characteristics, changes in organs, examples. Essential (hypertension) and secondary (symptomatic) arterial hypertension.</p> <p>121. Diabetes mellitus. Definition, classification. Etiology and pathogenesis. Diabetes mellitus type II morphological characteristics, clinical manifestations. Causes of death in diabetes mellitus.</p> <p>122. Jaundice. Types of jaundice. clinical significance.</p>	
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<b>Assignment for the evaluation indicator of the descriptor "Be able to"</b>	<b>Type of task</b>
<p>To solve a practical problem - morphological diagnostics (light microscopy)</p> <p style="text-align: center;">EXAMINATION MICROSLIDE.</p> <p style="text-align: center;"><b>I. GENERAL PATHOLOGICAL PROCESSES</b></p> <ol style="list-style-type: none"> <li>1. Purulent embolic nephritis.</li> <li>2. Subacute toxic dystrophy of the liver.</li> <li>3. Granular degeneration of the epithelium of the convoluted</li> </ol>	<p style="text-align: center;">- practical</p>



- tubules of the kidneys.
4. Granuloma of sarcoid type.
  5. Amyloidosis of the spleen.
  6. Liver amyloidosis.
  7. Fatty degeneration of the liver.
  8. Protein degeneration of the epithelium of the tubules of the kidneys.
  9. Venous hyperemia of the liver.
  10. Cyanotic induration of the spleen.
  11. Syphilitic mesoaortitis.
  12. Calcification of the walls of the arteries.
  13. Alveococcosis of the lung
  14. Hemorrhagic infarction of the lung.
  15. Hemosiderosis of the liver.
  16. Kidney amyloidosis.
  17. Caseous necrosis of the lymph node.
  18. Small punctate hemorrhages in the brain
  19. Venous congestion of the lungs.
  20. Nutmeg liver.
  21. Subacute massive liver necrosis.
  22. Croupous tracheitis.
  23. Gangrene of the small intestine.
  24. Myocardial hypertrophy.

## **II. TUMORS**

1. Papilloma
2. Cavernous hemangioma of the liver.
3. Fibroma.
4. Metastasis of lung cancer to the liver.
5. Teratoma.
6. Lipoma.

## **III. STOMACH DISEASES**

1. Adenocarcinoma of the stomach.
2. Perstiocellular carcinoma.
3. Chronic stomach ulcer.

## **IV. LIVER AND PANCREAS DISEASES**

1. Cystic fibrosis.
2. Billiary cirrhosis of the liver.
3. Portal cirrhosis of the liver with fatty hepatocytes.
4. Portal cirrhosis of the liver.

## **V. MALE REPRODUCTIVE SYSTEM DISEASES**

1. Metaplasia of the epithelium of the prostate glands.
2. Prostatic hypertrophy.

## **VI. FEMALE REPRODUCTIVE SYSTEM AND BREAST DISEASES**

1. Pseudo-erosion of the cervix.
2. Leiomyoma of the uterus.
3. Fibroadenoma of the mammary gland.
4. Purulent salpingitis.
5. Glandular cystic hyperplasia of the endometrium.
6. Cervical cancer - squamous without keratinization

7. Fibrocystic disease of the breast.

#### **VII. PREGNANCY FAILURE**

1. Aspiration of amniotic fluid.
2. Tubal pregnancy.
3. Placenta.
4. Chorionepithelioma.

#### **VIII. PULMONARY DISEASE**

1. Carinfecting pneumonia.
2. Bronchopneumonia.
3. Emphysema of the lungs.
4. Chronic bronchitis with bronchiectasis.
5. Chronic pneumonia.
6. Primary pulmonary hypertension.

#### **IX. CARDIOVASCULAR DISEASE**

1. Deposition of lipids in the wall of the artery.
2. Fibrinous pericarditis.
3. CMPS in the valve leaflet with rheumatism.
4. Cardiosclerosis.
5. Nephroangiosclerosis.
6. Myocardial infarction with organization phenomena.
7. Atherosclerosis of the aorta.
8. Fibrosis of the endocardium.
9. Polyposis-ulcerative endocarditis.
10. Atherosclerosis of the artery.
11. Atherosclerosis of the coronary artery.

#### **X. ENDOCRINE DISEASES**

1. Colloidal string
2. Papillary cystadenoma.
3. Goiter in combination with cancer.

#### **XI. INFECTIONS**

1. Tuberculosis.
2. Hemorrhagic pneumonia with influenza.

#### **XII. KIDNEY DISEASES**

1. Chronic glomerulonephritis.
2. Ischemic kidney infarction.
3. Acute intracapillary glomerulonephritis.
4. Necrotic nephrosis.
5. Chronic glomerulonephritis with wrinkling of the kidney.
6. Chronic pyelonephritis.
7. Amyloid nephrosis.

#### **XIII. HEMATOPOIETIC SYSTEM DISEASES.**

1. Liver with lymphocytic leukemia.
2. Lymphosarcoma.

Assignment for the evaluation indicator of the descriptor "Have skills of "	Type of task
<p><b>Solve the clinical problem from the section "General pathology":</b></p> <p><b>Topic 1. Lesson 1.</b> Methodological foundations of pathological anatomy. Reversible and irreversible damage to cells and tissues. Cell trophism, mechanisms provision and disruption of cell trophism. Dystrophy. Causes, mechanisms of development, features of morphological manifestations, clinical significance.</p> <p><b>Topic 2. Lesson 2.</b> Irreversible damage to cells and tissues. Necrosis, apoptosis. Causes, mechanisms of development, differences, clinical significance.</p> <p><b>Topic 3. Lesson 1.</b> Circulatory disorders. Thrombosis. Embolism. Disseminated intravascular coagulation (DIC). Heart attack.</p> <p><b>Topic 4. Lesson 2.</b> Disorders of blood supply (arterial, venous). Bleeding. Shock.</p> <p><b>Topic 5. Lesson 1.</b> Inflammation and reparation. General information about inflammation. Acute inflammation. outcomes of inflammation. Repair.</p> <p><b>Topic 6. Lesson 2.</b> Chronic inflammation. Granulomatous inflammation, specific granulomatous inflammation (tuberculosis, syphilis, leprosy, rhinoscleroma). Granulomatous diseases.</p> <p><b>Topic 7.</b> Immunopathological processes. Hypersensitivity reactions. Autoimmune diseases. immunodeficiency states. Amyloidosis.</p> <p><b>Topic 8.</b> Processes of adaptation. Hyperplasia. Hypertrophy. Atrophy. Metaplasia.</p> <p><b>Topic 9. Lesson 1.</b> Tumors. General provisions. Tumors from the epithelium.</p> <p><b>Topic 10. Lesson 2.</b> Mesenchymal tumors. The impact of the tumor on the body. Credit lesson on topics 5-6</p> <p><b>Topic 11.</b> Pathology of the prenatal period.</p> <p><b>Topic 12.</b> Pathology of the perinatal period.</p> <p><b>Topic 13.</b> Pathology associated with environmental factors. Iatrogenic. Medical disease. Alcohol intoxication. Addiction. Avitaminosis. Microelementoses.</p> <p><b>Topic 14.</b> The doctrine of diagnosis. Structure of the diagnosis.</p> <p><b>Topic 15.</b> Infectious process. Tuberculosis. Acute respiratory viral infections.</p> <p><b>Topic 16.</b> Infections of the gastrointestinal tract. Systemic inflammatory response. Sepsis.</p>	<p>- practical</p>

**Topic 17.**

Pathology of the blood system.

**Solve the clinical problem from the section " Clinical pathology":****Topic 1.**

Pathology of the blood system.

**Topic 2.**

Diseases of the cardiovascular system Part I. Atherosclerosis. Hypertonic disease. Cardiac ischemia.

**Topic 3.**

Diseases of the cardiovascular system Part II. Congenital heart defects. Diseases of the endocardium. Diseases of the myocardium. Diseases of the pericardium. Tumors hearts. Vasculitis. Diseases of the arteries. Aneurysms. Diseases of the veins. Vascular tumors.

**Topic 4.**

Diseases of the cardiovascular system Part III. Rheumatic diseases. Classification. Rheumatism. Nodular periarteritis. Rheumatoid arthritis. Systemic lupus erythematosus. Systemic scleroderma. Dermatomyositis. Sjogren disease.

**Topic 5.**

Lung diseases Part I. Pneumonia. Congenital anomalies. Atelectasis. Vascular pathology of the lungs.

**Topic 6.**

Diseases of the lungs. II part. Chronic diffuse lung diseases: chronic obstructive pulmonary disease, interstitial lung disease, lung cancer.

**Topic 7.**

Diseases of the gastrointestinal tract Part I. Diseases of the esophagus. Diseases of the stomach. Diseases of the exocrine pancreas.

**Topic 8.**

Diseases of the gastrointestinal tract Part II. Bowel disease: nonspecific ulcerative colitis, Crohn disease and other colitis. Colorectal cancer.

**Topic 9.**

Diseases of the liver and biliary tract. Acute and chronic hepatitis. Cirrhosis of the liver. Hepatocellular insufficiency.

**Topic 10.**

Diseases of the kidneys. Glomerulopathies. Tubulopathy. OPN. HPN. Uremia.

**Topic 11.**

Diseases of the female and male reproductive system.

**Topic 12.**

Pregnancy failure. Pathology of the placenta and umbilical cord. Gestosis. Diseases of the mammary glands.

**Topic 13.**

Diseases of the endocrine system. Diseases of the hypothalamic-pituitary systems. Diseases of the thyroid gland. Diseases of the adrenal glands and gonads.