

## Exam questions for pathology

1. **Death:** 1) definition, 2) classification 3) characteristic of clinical death, 4) characteristic of biological death, 5) signs of death and post-mortem changes.
2. **Cell injury:** 1) etiology, 2) pathogenesis 3) mechanisms of development, 4) morphologic characteristic of reversible cell injury (dystrophies), 5) classification of cell injury.
3. **Intracellular protein accumulations:** 1) etiology, 2) morphology of intracellular hyaline accumulation, 3) morphology of hydropic changes, 4) morphology of keratin accumulation, 5) outcomes of intracellular protein accumulations.
4. **Intracellular lipid accumulations (fatty degeneration):** 1) etiology, 2) histochemical methods of fat identification, 3) gross and microscopic characteristic of fatty degeneration of myocardium, 4) gross and microscopic characteristic of fatty degeneration of liver 5) outcomes of fatty degeneration.
5. **Intracellular carbohydrate accumulations:** 1) etiology, 2) histochemical methods of carbohydrates identification, 3) intracellular accumulation of glycogen, 4) morphology of mucoid changes, 5) outcomes of intracellular carbohydrate accumulations.
6. **Storage diseases:** 1) definition and etiology, 2) main morphological features of systemic lipidoses, 3) main morphological features of glycogen storage diseases 4) morphological features of most frequent mucopolysaccharidosis 5) causes of death in storage diseases.
7. **Extracellular protein accumulations:** 1) definition and classification, 2) etiology and morphogenesis of mucoid swelling, 3) morphology and outcome of mucoid swelling 4) etiology and morphogenesis of fibrinoid swelling, 5) morphology and outcome of fibrinoid swelling.
8. **Hyalinosis:** 1) definition, mechanism of development, classification, 2) preceding pathological processes 3) morphology of vessels hyalinosis, 4) morphology of connective tissue hyalinosis 5) outcome and functional significance of hyalinosis.
9. **Amyloidosis:** 1) definition, histochemical methods of amyloid detection, 2) theory of pathogenesis of amyloidosis, 3) morphogenesis of amyloidosis, 4) classification of amyloidosis, 5) perireticular and pericollagenous amyloidosis.
10. **Amyloidosis:** 1) clinical forms, 2) most common causes of secondary amyloidosis, 3) gross and microscopic characteristic of spleen amyloidosis, 4) gross and microscopic characteristics of kidney amyloidosis, 5) morphology of liver, intestine and brain amyloidosis.
11. **Extracellular lipids accumulations:** 1) definition and classification, 2) definition, causes and mechanisms of obesity, 3) morphology of obesity, 4) lipomatosis, 5) morphology of impaired cholesterol metabolism.
12. **Pathology of endogenous pigments metabolism:** 1) definition and classification, 2) types of pigments deriving from hemoglobin, 3) causes and morphology of general and local hemosiderosis, 4) types of hematin and associated diseases, 5) causes and morphology of impaired porphyrins metabolism.
13. **Pathology of endogenous pigments metabolism:** 1) stages of bilirubin metabolism, 2) causes and morphology of pre-hepatic jaundice, 3) causes and morphology of hepatic jaundice, 4) causes and morphology of post-hepatic jaundice, 5) morphology of bilirubin encephalopathy.
14. **Pathology of proteinogenic pigments metabolism:** 1) types and origin of proteinogenic pigments, 2) causes and morphology of disseminated acquired hypermelanosis, 3) causes and morphology of disseminated congenital hypermelanosis, 4) causes and morphology of local hypermelanosis, 5) causes and morphology of local hypomelanosis.

15. **Disorders of lipidogenic pigment metabolism:** 1) types of lipidogenic pigments, 2) characteristics of lipofuscin, 3) morphology of lipofuscinosis, 4) pathology of ceroid, 5) pathology of lipochromes.
16. **Nucleoprotein metabolism disorders:** 1) types of nucleoproteins and methods of their detection, 2) causes of gout, 3) morphology of gout, 4) causes and morphology of nephrolithiasis, 5) complications and possible causes of death in various types of nucleoprotein metabolism disorders.
17. **Rickets:** 1) definition, etiology and pathogenesis, 2) pathology of early rickets, 3) pathology of late rickets, 4) vitamin D deficiency in adults, 5) complications and possible causes of death in rickets.
18. **Scurvy and xerophthalmia:** 1) definition, etiology and pathogenesis of scurvy, 2) morphology of scurvy, 3) complications of scurvy, 3) etiology and pathogenesis of xerophthalmia, 5) morphology of xerophthalmia.
19. **Disorders of calcium metabolism:** 1) calcium metabolism and its regulation, 2) etiology and morphology of metastatic calcification, 3) etiology and morphology of dystrophic calcification, 4) etiology and morphology of metabolic calcification, 5) outcomes and significance of calcification.
20. **Concrements (stones):** 1) definition and causes, 2) types and location of stones, 3) mechanism of development, 4) types of bile ducts stones and associated pathology, 5) types of urinary tract stones and associated pathology.
21. **Necrosis and apoptosis:** 1) definition of necrosis and apoptosis, their differences, 2) stages of necrosis development, 3) gross and microscopic signs of necrosis, 4) classification of necrosis, 5) outcomes and significance of necrosis.
22. **Gangrene and infarction:** 1) definition and causes of gangrene, 2) types of gangrene and their morphology, 3) definition and causes of infarction, 4) types of infarction and their morphology, 5) outcomes of gangrene and infarction.
23. **Arterial hyperemia:** 1) definition and classification, 2) types of physiologic arterial hyperemia, 3) types of pathologic arterial hyperemia, 4) morphology of different types of pathologic arterial hyperemia, 5) outcomes and significance of different types of pathologic arterial hyperemia.
24. **Venous hyperemia (congestion):** 1) definition and classification, 2) causes and morphology of acute systemic venous congestion, 3) causes and morphology of chronic systemic venous congestion, 4) causes and morphology of local venous congestion, 5) outcomes.
25. **Venous congestion in liver and lungs:** 1) morphogenesis of changes in liver, 2) morphology of liver in chronic venous congestion, 3) morphogenesis of changes in lung, 4) morphology of lungs in chronic venous congestion, 5) outcomes.
26. **Heart failure:** 1) causes of acute and chronic heart failure, 2) morphology of acute heart failure, 3) liver pathology in chronic heart failure, 4) lung pathology in chronic heart failure, 5) changes in inner organs and serous cavities in chronic heart failure.
27. **Thrombosis:** 1) definition and contrast to post-mortem coagulation, 2) stages of thrombus formation and their characteristics, 3) causes and pathogenesis of thrombosis, 4) classification and morphology of thrombi, 5) outcomes.
28. **Disseminated intravascular clotting (DIC):** 1) definition and basic clinical and morphological characteristics, 2) etiology and pathogenesis, 3) stages, 4) morphology of stages, 5) organ pathology and causes of death.
29. **Embolism:** 1) definition, 2) types of embolism, 3) classification of emboli, 4) types of solid emboli, 5) outcomes of embolism.

30. **Bleeding:** 1) definition, 2) classification, 3) mechanisms of development, 4) morphology of variants, 5) significance and outcomes.
31. **Inflammation:** 1) definition and etiology, 2) terminology and classification, 3) phases and their morphology, 4) regulation of inflammation, 5) outcomes.
32. **Serous inflammation:** 1) definition; 2), causes, 3) localization, 4) morphology, 5) significance and outcomes.
33. **Catarrhal inflammation:** 1) definition and causes, 2) types, 3) localization, 4) morphology, 5) significance and outcomes.
34. **Fibrinous inflammation:** 1) definition and causes, 2) types, 3) localization, 4) morphology, 5) significance and outcomes.
35. **Purulent inflammation:** 1) definition and causes, 2) types, 3) localization, 4) morphology, 5) significance and outcomes.
36. **Productive (proliferative) inflammation:** 1) causes and types, 2) morphology of productive inflammation with formation of polyps and pointed condylomas, 3) morphology of interstitial inflammation, 4) clinical course of productive inflammation, 5) significance and outcomes of productive inflammation.
37. **Productive (proliferative) inflammation:** 1) types of productive inflammation, 2) causes of granulomatous inflammation, 3) classification of granulomas, 4) stages of granulomatosis, 5) significance and outcomes of granulomatous inflammation.
38. **Productive (proliferative) inflammation:** 1) morphology of productive inflammation around parasites and foreign bodies, 2) etiology and epidemiology of cysticercosis, 3) pathogenesis of cysticercosis, 4) pathology of cysticercosis, 5) complications and possible causes of death.
39. **Echinococcosis:** 1) etiology, 2) epidemiology and pathogenesis, 3) types and pathology, 4) complications, 5) causes of death.
40. **Trichinosis:** 1) life cycle of trichinella, 2) localization of lesions, 3) morphological changes in areas of infestation, 4) outcomes of trichinosis, 5) causes of death.
41. **Specific proliferative inflammation:** 1) etiology and common features, 2) morphology of tissue reactions in tuberculosis, 3) types and structure of tuberculous granulomas, 4) difference between gummas and tuberculous granulomas, 5) outcomes.
42. **Syphilis:** 1) definition, etiology and pathogenesis, 2) morphology of first period of acquired syphilis, 3) morphology of second period of acquired syphilis, 4) morphology of third period of acquired syphilis, 5) structure of syphilitic granuloma.
43. **Congenital syphilis:** 1) etiology, 2) morphology of syphilis of stillborn, 3) morphology of early congenital syphilis, 4) morphology of late congenital syphilis, 5) pathology of placenta in syphilis.
44. **Leprosy:** 1) etiology, localization and type of inflammation, 2) diagnostic cells, 3) morphology of lepromatous form, 4) morphology tuberculoid form, 5) morphology of intermediate form.
45. **Scleroma:** 1) etiology and type of inflammation in scleroma, 2) diagnostic cells, 3) localization and gross appearance of lesion, 4) microscopic characteristics of inflammation in scleroma, 5) complications and causes of death in scleroma.
46. **Hypersensitivity, type I:** 1) rapidity of development, participating immunoglobulins, 2) chemical mediators, 3) cells involved in tissue damage, 4) diseases based on type I hypersensitivity, 5) pathology.

47. **Hypersensitivity, type II:** 1) rapidity of development, participating immunoglobulins, 2) chemical mediators, 3) types, 4) mechanism of receptor dysfunction (hypersensitivity type V), 5) diseases, based on type II hypersensitivity.
48. **Hypersensitivity, type III:** 1) rapidity of development, participating immunoglobulins, 2) chemical mediators, 3) cells involved in tissue damage, 4) pathology, 5) diseases based on type III hypersensitivity.
49. **Hypersensitivity, type IV:** 1) rapidity of development, participating immunoglobulins, 2) chemical mediators, 3) cells involved in tissue damage, 4) diseases based on type IV hypersensitivity, 5) pathology.
50. **B-cell immunodeficiencies:** 1) examples of B-cell immunodeficiencies, 2) main clinical manifestations, 3) clinical manifestations of Bruton syndrome, 4) pathology of Bruton syndrome, 5) selective deficiency of IgA.
51. **T-cell immunodeficiencies:** 1) examples of T-cell immunodeficiencies, 2) main clinical manifestations, 3) clinical manifestations of DiGeorge syndrome, 4) cause of tetany in DiGeorge syndrome, 5) pathology of DiGeorge syndrome.
52. **Combined and secondary immunodeficiencies:** 1) pathology of combined immunodeficiencies, 2) clinical manifestations of combined immunodeficiencies, 3) definition of secondary immunodeficiencies, 4) causes of secondary immunodeficiency, 5) pathology of immune organs in secondary immunodeficiencies.
53. **Autoimmune diseases:** 1) definition, 2) classification, 3) examples of organ-specific diseases, 4) examples organ non-specific diseases, 5) possible causes of organ-specific diseases.
54. **Thymic pathology:** 1) types of changes in thymus, 2) etiology accidental thymic involution (ATI) 3) pathology of ATI stages 2 and 3, 4) pathology of ATI stages 4 and 5, 5) causes and pathology of thymic hyperplasia.
55. **Regeneration:** 1) definition and types, 2) morphogenesis and regulation of regeneration, 3) physiological regeneration, examples, 4) types of reparative regeneration, examples, 5) abnormal regeneration, examples.
56. **Regeneration of connective tissue:** 1) types, origin and stages 2) morphology of stage 1, 3) morphology of the stage 2, 4) outcomes, 5) abnormal regeneration.
57. **Regeneration of blood and blood vessels:** 1) types and origin of blood regeneration, 2) morphology of blood regeneration, 3) types and origin of blood vessels regeneration, 4) regeneration of microvessels 5) regeneration of large vessels.
58. **Regeneration of bone and cartilage tissue:** 1) factors that influence bone regeneration, 2) morphology of regeneration in uncomplicated bone fracture, 3) morphology and causes of secondary bone union, 4) bone regeneration under adverse conditions, 5) regeneration of cartilage tissue.
59. **Wound healing:** 1) factors that influence the healing process, 2) morphology of epithelial defect healing, 3) morphology of healing under a scab, 4) morphology of wound healing by primary intention, 5) morphology of wound healing by secondary intention.
60. **Atrophy:** 1) definition and classification, 2) causes of physiological and pathological atrophy, 3) morphology of general atrophy (cachexia), 4) types and morphology of local atrophy, 5) significance and outcomes atrophy.

61. **Hypertrophy, organization, reorganization and tissue metaplasia:** 1) definition, causes and types of hypertrophy, 2) morphology of hypertrophy, types, 3) morphology of organization, 4) morphology of tissues reorganization 5) definition and morphology of metaplasia.
62. **Tumor:** 1) definition and basic features, 2) gross appearance, size and secondary changes in tumor, 3) morphology of tumor parenchyma, 4) morphology of tumor stroma, 5) types and characteristics of morphological atypia.
63. **Tumor:** 1) types of tumor growth according to differentiation and their characteristics, 2) types of tumor growth relative to the lumen of the hollow organ, according to the number of foci, 3) types of tumor atypia, 4) morphological characteristics of the tissue atypia, 5) morphological characteristics of the cell atypia.
64. **Tumor:** 1) general characteristics of benign tumors, 2) general characteristics of malignant tumors, 3) features of tumors with locally invasive growth, examples, 4) definition of “relapse”, 5) definition of “metastasis”, routes of metastasis.
65. **Tumor:** 1) theory of tumor progression, 2) background pretumorous processes, 3) actual pretumorous processes 4) facultative and obligate precancer, examples, 5) tumor histogenesis.
66. **Tumor:** 1) clinical and anatomical form tumors, their general characteristics, 2) international classification of tumors, principles of its construction, 3) theories of tumors origin, 4) immune reaction of the organism to the tumor, 5) progression of tumors.
67. **Organ non-specific epithelial tumors:** 1) definition and morphology of papilloma, 2) types and morphology of adenoma, 3) definition of “carcinoma”, “carcinoma in situ”, 4) morphology of squamous cell carcinoma and adenocarcinoma, 5) morphology of undifferentiated cancers.
68. **Organ-specific epithelial tumors:** 1) definition and histogenesis of seminoma, 2) morphology and routes of metastasis of seminoma, 3) morphology of hydatidiform mole and chorionepithelioma, 4) types and morphology of benign renal tumors, 5) types and morphology of malignant renal tumors.
69. **Lung cancer:** 1) etiology and pathogenesis, 2) classification and microscopic forms of lung cancer, 3) morphology of the central cancer, 4) morphology of peripheral cancer, 5) complications, metastasis and causes of death.
70. **Stomach cancer:** 1) etiology and histogenesis, 2) classification, 3) morphology of different forms of gastric cancer, 4) histological types of gastric cancer, 5) metastasis, complications and causes of death.
71. **Breast tumors:** 1) types and morphology of benign breast tumors, 2) morphology of non-infiltrating intralobular and intraductal breast cancer, 3) morphology of invasive breast cancer, 4) morphology of Paget's disease, 5) complications, metastasis and causes of death.
72. **Benign mesenchymal tumors:** 1) types and morphology of benign tumors of fibrous tissue, 2) types and morphology of benign tumors of muscle tissue, 3) types and morphology of benign vascular tumors, 4) morphology of benign tumors of the synovial and mesothelial tissue, 5) types and morphology of benign tumors of bone and cartilage tissues.
73. **Sarcoma:** 1) definition and classification, 2) types and morphology of malignant tumors of fibrous and fatty tissue, 3) types and morphology of malignant tumors of muscle tissue, 4) types and morphology of malignant tumors of blood vessels, synovial cells and mesothelial tissue, 5) morphology of malignant tumors of bone and cartilage tissues.
74. **Melanocytic tumors:** 1) definition and types of nevi, 2) morphology of various types of nevi, 3) definition and localization of melanoma, 3) morphological characteristics of melanoma, 5) routes of metastasis and causes of death in melanoma.

75. **Tumors of the central and peripheral nervous system:** 1) classification, characteristic clinical features, 2) characteristic morphological structures, 3) general morphological characteristics of benign tumors, 4) general morphological characteristics of malignant tumors, 5) pathways of metastasis and causes of death.
76. **Cervical and uterine cancer:** 1) premalignant cervical processes, 2) types and morphology of cervical cancer, 3) premalignant processes in uterus, 4) morphology of uterine cancer, 5) routes of metastasis and causes of death.
77. **Anemia:** 1) definition, etiology and pathogenesis, 2) classification, 3) general morphological characteristics, 4) causes and morphology of acute post-hemorrhagic anemia, 5) causes and morphology of chronic posthemorrhagic anemia.
78. **Hypoplastic and aplastic anemia:** 1) endogenous etiologic factors, 2) exogenous etiologic factors, 3) congenital aplastic anemia: clinical and morphological characteristics, 4) congenital aplastic anemia: clinical and characteristic 5) complications.
79. **Addison-Biermer anemia:** 1) etiology and pathogenesis 2) morphological changes in gastrointestinal tract, 3) morphological changes in bone marrow and lymphoid organs, 4) morphological changes in spinal cord, 5) other B12-deficiency anemias.
80. **Leukemia:** 1) definition and etiology, 2) classification, 3) general morphological characteristics, 4) distinctions from leukemoid reactions, 5) complications and causes of death.
81. **Acute leukemia:** 1) definition, 2) classification, 3) general morphological characteristics, 4) morphology of acute myeloid leukemia, 5) complications and causes of death.
82. **Acute lymphoblastic leukemia:** 1) definition, age of patients, 2) morphological characteristics, 3) manifestations of neuroleukemia, 4) complications, 5) causes of death.
83. **Chronic leukemia:** 1) classification, 2) general morphological characteristics, 3) chronic myelocytic leukemia morphology 5) morphology of chronic lymphocytic leukemia, 5) complications and causes of death.
84. **Paraproteinemic leukemias:** 1) types and general features, 2) definition and types of multiple myeloma, 3) morphology of bone lesions in multiple myeloma; 4) morphology of internal organs lesions in multiple myeloma, 5) complications and causes of death.
85. **Lymphomas:** 1) classification, 2) general morphological characteristics, 3) non-Hodgkin's lymphomas, classification, 4) morphology of Burkitt's lymphoma, 5) complications and causes of death.
86. **Hodgkin's lymphoma (lymphogranulomatosis):** 1) definition and classification, 2) gross changes of lymphoid tissue, 3) microscopic changes, characteristic cells, 4) morphology of variants, 5) complications and causes of death.
87. **Atherosclerosis:** 1) definition, types of arteriosclerosis, 2) etiology and pathogenesis, 3) macroscopic types of atherosclerotic lesions, 4) microscopic stages 5) clinical and morphological forms.
88. **Clinical and morphological forms of atherosclerosis:** 1) morphology of aortic atherosclerosis, 2) morphology of renal artery atherosclerosis 3) morphology of intestine arteries atherosclerosis, 4) morphology of extremities arteries atherosclerosis, 5) causes of death in these forms of atherosclerosis.
89. **Arterial hypertension:** 1) definition and types, 2) symptomatic hypertension, 3) names and morphology of the 1st and 2nd stages of benign hypertension, 4) name and morphology of the 3rd stage of benign hypertension; 5) complications and the causes of death.

90. **Strokes:** 1) definition, etiology and pathogenesis, classification, 2) morphology of transient cerebral ischemia, 3) morphology of ischemic stroke, 4) morphology of hemorrhagic stroke, 5) complications, causes of death and outcomes.
91. **Coronary (ischemic) heart disease (CHD):** 1) definition, etiology and pathogenesis, classification, 2) morphology of ischemic myocardial dystrophy 3) morphology of myocardial infarction, outcomes, 4) morphology of atherosclerosis in CHD, 5) causes of death.
92. **Rheumatism:** 1) definition, etiology and pathogenesis, 2) stages of connective tissue disorganization (alteration), 3) morphology of specific inflammatory response, 4) morphology of non-specific inflammatory response, 5) causes and features of sclerosis in rheumatism.
93. **Organ pathology in rheumatism:** 1) clinical and anatomical forms of rheumatism, 2) morphology of rheumatic endocarditis, 3) morphology of rheumatic myocarditis and pericarditis, 4) morphology of rheumatic polyarthritis and CNS lesions, 5) complications and causes of death in rheumatism.
94. **Rheumatoid arthritis:** 1) morphology of 1st stage synovitis, 2) morphology of 2nd stage synovitis, 3) morphology of 3rd stage of synovitis, 4) morphology of visceral lesions, 5) complications and causes of death.
95. **Systemic lupus erythematosus:** 1) morphology of tissue and cellular changes, 2) morphology of cardiovascular lesions, 3) morphology of renal lesions, 4) morphology of joints and skin lesions, 5) complications and causes of death.
96. **Polyarteritis nodosa:** 1) definition, etiology and pathogenesis, 2) localization of lesions, 3) morphology of vascular changes, 4) morphology of organ lesions, 5) complications and causes of death.
97. **Lobar pneumonia:** 1) definition, synonyms, etiology and pathogenesis, 2) stages and their morphology, 3) pulmonary complications, 4) extrapulmonary complications, 5) causes of death.
98. **Focal pneumonia:** 1) definition, etiology and pathogenesis, 2) morphological characteristics, 3) morphological features, depending on age, 4) morphological features, depending on etiology, 5) complications and causes of death.
99. **Influenza:** 1) etiology and pathogenesis, 2) morphology of mild influenza, 3) morphology of moderate influenza, 4) morphology of severe influenza, 5) complications and causes of death.
100. **Parainfluenza and RSV infection:** 1) etiology and pathogenesis of parainfluenza, 2) morphology of parainfluenza, 3) etiology and pathogenesis of RSV infection, 4) morphology of RSV infection, 5) complications and causes of death in parainfluenza and RSV infection.
101. **Adenovirus infection:** 1) etiology and pathogenesis, 2) characteristic morphological features, 3) morphology of mild form, 4) morphology of severe form, 5) complications and causes of death.
102. **Mycoplasmosis:** 1) etiology and pathogenesis, 2) characteristic morphological features, 3) gross changes in airways and lungs, 4) microscopic changes in airways and lungs, 5) complications and causes of death.
103. **Chronic bronchitis:** 1) etiology and pathogenesis, 2) classification, 3) gross and microscopic characteristics of various types, 4) changes in the lung parenchyma, 5) complications and outcomes.
104. **Multiple bronchiectasis:** 1) etiology and pathogenesis, 2) gross appearance, 3) microscopic features, 4) changes in lung parenchyma, 5) complications and causes of death.
105. **Bronchial asthma:** 1) etiology, pathogenesis, 2) classification 3) morphology of acute period, 3) chronic changes in lung tissue, 4) complications and causes of death.

106. **Emphysema:** 1) definition, etiology and pathogenesis, 2) classification, 3) morphological characteristics, 4) morphology of various forms, 5) complications and causes of death.
107. **Chronic interstitial lung diseases:** 1) etiology and pathogenesis; 2) classification; 3) name and pathomorphology of stage 1; 4) names and pathomorphology of stages 2 and 3; 5) complications and causes of death.
108. **Tonsillitis:** 1) definition, etiology and pathogenesis, 2) classification, 3) morphology and differential diagnosis of various forms, 4) local complications, 5) systemic complications.
109. **Gastritis:** 1) etiology and pathogenesis, 2) morphology of acute gastritis, 3) classification of chronic gastritis, 4) morphology of chronic gastritis, 5) complications and outcomes of gastritis.
110. **Stomach and duodenal ulcer disease:** 1) etiology and pathogenesis, 2) morphology of acute gastric ulcer, 3) morphology of chronic gastric ulcer, 4) morphology of chronic duodenal ulcer, 5) complications.
111. **Appendicitis:** 1) etiology and pathogenesis, 2) classification, 3) morphology of various forms of acute appendicitis, 4) morphology of chronic appendicitis, 5) complications.
112. **Ulcerative colitis and Crohn's disease:** 1) etiology and pathogenesis of ulcerative colitis, 2) morphology of ulcerative colitis, 3) etiology and pathogenesis of Crohn's disease, 4) morphology of Crohn's disease, 5) complications of ulcerative colitis and Crohn's disease.
113. **Viral hepatitis:** 1) etiology and pathogenesis, 2) direct and indirect markers, 3) clinical and anatomical forms, 4) morphology of acute viral hepatitis, 5) outcomes, complications and causes of death.
114. **Chronic hepatitis:** 1) definition and classification, 2) morphological signs of activity, 3) morphological characteristics of stages in chronic hepatitis, 4) morphology of chronic viral hepatitis, 5) complications, outcomes and causes of death.
115. **Hepatosi:** 1) definition, etiology and classification, 2) morphology of toxic liver degeneration (massive hepatic necrosis), 3) morphology and causes of death in toxic liver degeneration, 4) morphology of liver steatosis, 5) complications and outcomes of steatosis.
116. **Liver cirrhosis:** 1) definition and etiology, 2) classification, 3) morphology of portal cirrhosis, 4) morphology of postnecrotic cirrhosis; 5) causes of death.
117. **Glomerulonephritis:** 1) definition; 2) etiology and pathogenesis; 3) classification; 4) general morphologic characterization; 5) causes of death and complications.
118. **Diffuse endocapillary glomerulonephritis:** 1) definition, etiology and pathogenesis, 2) main clinical manifestations, 3) gross changes, 4) microscopic changes, 5) outcomes.
119. **Rapidly progressive glomerulonephritis:** 1) definition, etiology and pathogenesis, 2) main clinical manifestations, 3) gross changes, 4) microscopic changes, 5) causes of death and outcomes.
120. **Membranous glomerulonephritis (nephropathy):** 1) definition, etiology and pathogenesis, 2) main clinical manifestations, 3) gross changes, 4) microscopic changes, 5) causes of death and outcomes.
121. **Mesangial glomerulonephritis:** 1) definition, etiology and pathogenesis, 2) main clinical manifestations, 3) histological forms, 4) morphological characteristics, 5) cause of death and outcomes.
122. **Interstitial (tubulointerstitial) nephritis:** 1) definition, etiology and pathogenesis, 2) classification, 3) morphology of acute forms, 4) morphology of chronic form, 5) outcomes.



123. **Acute necrotizing nephrosis (acute renal failure):** 1) etiology and pathogenesis, 2) stages and gross changes, 3) name and morphology of 1st stage, 4) name and morphology of 2nd and 3rd stages, 5) complications and outcomes.
124. **Amyloid nephrosis:** 1) etiology and pathogenesis; 2) names and pathomorphology of stages 1 and 2; 3) name and pathomorphology of stage 3; 4) name and pathomorphology of stage 4; 5) complications and outcomes.
125. **Pyelonephritis:** 1) definition, etiology and pathogenesis, 2) morphology of acute pyelonephritis, 3) morphology of chronic pyelonephritis, 4) complications, 5) outcomes.
126. **Lipoid nephrosis (podocyte foot processes disease):** 1) definition, etiology, 2) main clinical manifestations, 3) gross kidney appearance, 4) microscopic changes in kidney, 5) causes of death.
127. **Diseases of the pituitary gland:** 1) causes and morphology of acromegaly and gigantism, 2) causes and morphology of dwarfism, 3) causes of Cushing's disease, 4) main clinical and morphologic manifestations, 5) causes of death.
128. **Thyroid diseases:** 1) causes and morphology of hypothyroidism, 2) types of hypothyroidism, 3) morphology and differential diagnosis of myxedema and cretinism, 4) causes of hyperthyroidism, 5) complications.
129. **Goiter:** 1) definition and classification principles, 2) types, depending on macro- and microscopical appearance, 3) morphological characteristics parenchymatous goiter, 4) morphological characteristics of colloid goiter, 5) morphology of Graves' disease (diffuse toxic goiter, Basedow disease).
130. **Adrenogenital syndrome:** 1) etiology, 2) forms, 3) clinical manifestations, 4) changes in adrenal glands, 5) causes of death.
131. **Diabetes mellitus:** 1) etiology and classification. 2) diabetic microangiopathy and macroangiopathy, 3) changes in organs (kidney, liver), 4) complications and causes of death, 5) diabetic embryopathy and fetopathy.
132. **Bacterial dysentery:** 1) etiology and pathogenesis, 2) morphology of local changes, 3) morphology of systemic changes, 4) features of present-day dysentery, 5) causes of death and complications.
133. **Salmonellosis:** 1) etiology and pathogenesis, 2) clinical and anatomical forms, 3) morphology, 4) complications, 5) causes of death.
134. **E. coli infection:** 1) etiology and pathogenesis, 2) gross and microscopic changes in intestines, 3) changes in other organs, 4) complications, 5) causes death.
135. **Candidiasis:** 1) definition, etiology, pathogenesis, 2) morphology of candidiasis of GIT, 3) morphology of pulmonary candidiasis, 4) morphology of urinary tract candidiasis. 5) morphology of generalized form.
136. **Typhoid fever:** 1) etiology and pathogenesis, 2) stages and their morphology, 3) morphology of systemic changes, 4) intestinal complications, 5) causes of death.
137. **Diphtheria:** 1) etiology and pathogenesis, 2) clinical and anatomical forms, 3) morphology of local changes, 4) morphology of systemic changes, 5) complications and causes of death, pathomorphosis.

138. **Scarlet fever:** 1) etiology and pathogenesis, 2) clinical and anatomical forms, 3) morphology of local changes, 4) morphology of systemic changes, 5) complications and causes of death, pathomorphosis.
139. **Measles:** 1) etiology and pathogenesis, 2) lungs changes in uncomplicated measles, 3) lungs changes in complicated measles, 4) systemic changes, 5) outcomes, complications, causes of death.
140. **Meningococcal infection:** 1) etiology and pathogenesis, 2) clinical and anatomical forms, 3) morphology of meningitis, 4) morphology of meningococemia, 5) complications and causes of death.
141. **Cholera:** 1) etiology, epidemiology, pathogenesis, 2) stages of cholera and their morphology, 3) specific complications, 4) non-specific complications, 5) causes of death.
142. **Generalized infectious diseases.** 1) etiology and pathogenesis, 2) morphology of local changes, 3) pathologic anatomy of generalized septicemia-type changes, 4) pathologic anatomy of generalized septicopyemia-type changes, 5) current understanding of sepsis and its place in the structure of pathologic diagnosis (Third International Consensus on the definition of sepsis and septic shock)
143. **Infectious (septic) endocarditis:** 1) etiology and pathogenesis, 2) classification, 3) gross and microscopic changes in heart valves, 4) changes in other organs, 5) outcomes and complications.
144. **Bacteriemic (septic) shock:** 1) definition, etiology, clinical manifestations, 2) the most characteristic site of entry, 3) factors of invasion, 4) morphology, 5) causes of death.
145. **Tuberculosis:** 1) etiology, routes of infection, 2) classification, 3) morphology of primary tuberculosis complex, 4) variants of clinical course, 5) causes of death.
146. **Primary pulmonary tuberculosis complex:** 1) components and their morphology 2) variants of course, 3) morphology of hematogenous progression, 4) morphology of lymphogenous progression, 5) morphology of healing of the primary affect and the name of the healed focus, according to the author.
147. **Tuberculous bronchoadenitis:** 1) morphologic changes in lymph nodes, 2) morphologic changes in bronchi, 3) pulmonary changes, 4) outcomes and complications, 5) causes of death.
148. **Disseminated pulmonary tuberculosis:** 1) route of infection and course, 2) morphologic changes in the lungs, 3) characteristics of caverns, 4) characteristic tissue reaction, 5) outcomes and causes of death.
149. **Secondary pulmonary tuberculosis:** 1) forms, 2) morphology of acute forms, 3) outcomes of acute forms, 4) structure of cavity wall in acute forms, 5) complications and causes of death.
150. **Fibrous cavernous and cirrhotic pulmonary tuberculosis:** 1) morphology of each form, 2) structure of the chronic cavernous wall, 3) changes in the lung outside the cavern, 4) complications 5) causes of death.
151. **Organ tuberculosis:** 1) route of infection and the most common forms, 2) intestinal tuberculosis, 3) tuberculosis of bones and joints, 4) tuberculosis urinary and reproductive systems, 5) complications, causes of death.
152. **Prenatal ontogenesis:** 1) periods, their definition and duration, 2) gametopathies, 3) blastopathies, 4) embryopathies, 5) fetopathies.
153. **Congenital malformations:** 1) definition and etiology, 2) critical periods, 3) teratogenetic terminal period, 4) basic cellular mechanisms of teratogenesis, 5) terminology.

154. **Congenital malformations:** 1) classification, 2) classification and definition of multiple congenital malformations, 3) definition of multiple congenital malformation syndrome, examples of chromosomal syndromes, 4) mendelian syndromes, examples, 5) syndromes of formal genesis and exogenous syndromes, examples.

155. **Congenital malformations of the central nervous system:** 1) incidence, etiology and pathogenesis, 2) the severest types and their characterization, 3) causes and morphology of hydrocephalus, 4) hernias of the brain and spinal cord, 5) prognosis.

156. **Congenital malformations of the cardiovascular system:** 1) anomalies of cardiac position, 2) septal anomalies, 3) conus and arterial trunk anomalies, 4) right ventricular and pulmonary artery outlet tract anomalies, 5) left ventricular and aortic outlet tract anomalies.

157. **Congenital malformations of the urinary and genital systems:** 1) frequency, etiology, and pathogenesis, 2) congenital kidney malformations, 3) congenital malformations of the urinary tract, 4) most common male genital malformations, 5) most common female genital malformations.

158. **Pathology of pregnancy:** 1) clinical manifestations of nephropathy, 2) changes in placenta and kidney in nephropathy, 3) clinical manifestations of eclampsia, 4) morphology of eclampsia, 5) causes of death in eclampsia.

159. **Pathology of pregnancy:** 1) causes and morphology of amniotic fluid embolism, 2) possible causes of death, 3) postpartum infection: site of entry and its morphology, 4) forms of postpartum infection, 5) possible causes of death.

160. **Pathology of placenta:** 1) types of maturation abnormalities, 2) causes and morphology of primary and secondary, acute and chronic placental insufficiency, 3) their influence on fetus, 4) inflammation: types, nomenclature, morphology depending on the route of infection, 5) influence of inflammation on fetus.

161. **Congenital malformations of the placenta:** 1) congenital malformations of amnion, 2) abnormality of mass and size of the placenta, 3) abnormality of form, localization, abruption of placenta, 4) congenital malformation of umbilical cord, 5) influence on the fetus.

162. **Perinatal period:** 1) definition, 2) subdivision, 3) definition of “live birth” and “stillbirth”, 4) morphological criteria for fetal maturity, 5) signs of prematurity.

163. **Intrauterine hypoxia (asphyxia):** 1) definition and pathogenesis, 2) causes of antenatal hypoxia, 3) causes of intranatal hypoxia, 4) main morphological features, 5) microscopic changes in lungs and brain.

164. **Pneumopathies of newborns:** 1) definition, 2) clinical manifestations, risk factors, 3) causes, 4) types and their characteristics, 5) complications.

165. **Hyaline membrane disease:** 1) definition and causes, 2) gross changes in lungs, 3) microscopic changes, stages, 4) morphogenesis, 5) complications.

166. **Birth trauma:** 1) definition 2) causes, 3) contributing factors, 4) types, 5) birth trauma of skull and spine: types and consequences.

167. **Intranatal CNS injury:** 1) definition and causes, 2) types, 3) the morphology subependymal and intraventricular hemorrhage, 4) morphology of periventricular leukomalacia, 5) complications and consequences.

168. **Hemolytic disease of newborn:** 1) causes, 2) forms, 3) main morphological features, 4) morphology of bilirubin encephalopathy, 5) causes of death and complications.

169. **Infectious fetopathies:** 1) pathogenesis, 2) pathways of intrauterine infection, 3) common morphologic features, 4) etiology, 5) consequences.
170. **Congenital listeriosis:** 1) etiology and route of infection of fetus, 2) forms, 3) clinical signs, 4) morphology, 5) pathogenesis.
171. **Congenital cytomegalovirus infection:** 1) etiology and route of infection of fetus, 2) clinical manifestations, 3) forms, 4) morphology, 5) cytomegalovirus fetopathy.
172. **Congenital toxoplasmosis:** 1) characterization of causative agent, route of intrauterine infection, 2) clinical manifestations. 3) morphological changes in infection up to 28 weeks of pregnancy, 4) morphological changes in infection after 29 weeks, 5) morphological changes in infection during childbirth.
173. **Congenital herpes infection:** 1) etiology and routes of intrauterine infection, 2) forms, 3) pathognomonic morphological features, 4) main morphological features, 5) outcomes and causes of death.