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

FACULTY OF TREATMENT AND PREVENTION

Appraisal Fund
in the discipline "Pathological anatomy

Specialty 05/31/01 General Medicine

2023

1. **Interim certification form: test, exam, test.**

2. **Type of intermediate certification - exam** based on results

text test control, an interview with 3 questions, solving a situational problem, practical skills - describing a macroscopic specimen and answering a microscopic specimen. According to the evaluation criteria of various forms of control of knowledge and skills, each form of answer is evaluated, the results are summarized according to the checklist.

3. **List of competencies formed by the discipline or in formation which discipline is involved**

Code competencies	Content of competencies (results of mastering OOP)
OPK 9	Ability to the assessment of morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems
PC 5	Willingness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathological, anatomical and other studies in order to recognize the condition or establish the presence or absence of a dental disease.

4. **Stages of developing competencies in the process of mastering educational programs**

Competence	Disciplines	Semester
OPK-9	Anatomy	1, 2, 3
	Topographic anatomy, operative surgery	5, 6
	Histology, embryology, cytology	2, 3
	Normal physiology - physiology	3, 4
	Microbiology, virology	3, 4
	Immunology	9.A
	Pharmacology	5, 6
	Pathological physiology	5, 6
	Clinical pharmacology	11, C
	Propaedeutics of internal diseases	5, 6
	Fundamental medicine	7
PK-5	Histology, embryology, cytology	2, 3
	Pathological physiology	5, 6
	Psychiatry, medical psychology	9
	Propaedeutics of internal diseases	5, 6
	Radiation diagnostics	7
	Phthisiology	10.V
	general surgery	5, 6
	Dentistry	9
	Fundamental medicine	7

5. Stages of developing competencies in process of mastering the discipline

Sections of the discipline	Codes generated competencies	
	OPK-9	PK-5
Semester 5		
Section 1	+	+
Section 2	+	+
Section 3	+	+
Semester 6		
Section 3		
Section 4	+	+
Semester 9, A		
Section 5	+	+

6. Forms of assessment tools in accordance with the competencies being developed

Code competencies	Forms of assessment tools	
	Current certification	Interim certification
OPK 9	Text tests with situational tasks Oral survey, interview Practical skills - description macro- And microslides, sketch microslides into the album Abstract Registration of a medical certificate death certificates Writing pathological diagnosis	Text tests Situational tasks Oral survey, interview with 3 questions Practical skills - description of macro- and micropreparations
PC 5	Text tests with situational tasks Oral survey, interview Practical skills - description macro- And microslides, sketch microslides into the album. Essay Decor medical death certificates Writing pathological diagnosis	Text tests Situational tasks Oral survey, interview with 3 questions Practical skills - description of macro- and micropreparations

7. Current control

Interview

List of questions for current and intermediate certification in sections 1-4

Section 1.

1. Stages of development of pathological anatomy. Leading Russian schools of pathologists (Moscow, St. Petersburg, Kazan).
2. History of the development of pathological anatomy in Rostov-on-Don.
3. Biopsy, types of significance in clinical practice.
4. Objects of research and methods of pathological anatomy.
5. Cytological research method and its place in the diagnosis of diseases.
6. Pathology of the cell nucleus, examples and significance in pathology.
7. Pathology of mitosis.
8. Chromosomal aberrations and chromosomal diseases.
9. Mitochondrial pathology.
10. Cytoskeleton and cell pathology. Diagnostic value of identifying intermediate filaments.
11. Pathology of the Golgi complex.
12. Damage (alteration): definition of the concept, types (ischemic and hypoxic, damage by oxygen free radicals, toxic damage), causes.

13. Hyaline-droplet and hydropic dystrophy: causes, development mechanisms, macro- and microscopic picture, significance for the body.
14. Parenchymal fatty degenerations (lipidoses): causes, mechanism of development, changes in organs, significance for the body.
15. Fatty degeneration of the myocardium (tiger heart): causes, development mechanisms, significance for the body.
16. Fatty liver: causes, types, mechanism of development, macro- and microscopic changes, significance for the body.
17. Lysosomal storage diseases: types, causes, mechanisms of development, significance for the body, examples.
18. Hyalinosis: definition of the concept, morphological characteristics, pathogenesis, localization, significance for the body.
19. Amyloid, structure, physicochemical properties, diagnostic methods, classification principles.
20. Secondary amyloidosis: causes, changes in organs, significance for the body.

21. Obesity: definition, classification, clinical and morphological characteristics. Nutritional obesity and its complications.
22. Endogenous pigments and pigmentation. Classification.
23. Local and general hemosiderosis: causes, morphological characteristics, significance for the body.
24. Brown compaction of the lungs: causes, morphological characteristics, significance for the body.
25. Jaundice: types, causes, changes in organs, significance for the body.
26. Morphology of melanin metabolism disorders: classification, role in pathology.
27. Disorders of nucleoprotein metabolism (gout, uric acid infarction).
28. Disorders of sodium and potassium metabolism. Mechanisms of development. Significance in pathology.
29. Calcinosis: types, pathogenesis, morphological characteristics.
30. Causes and mechanisms of stone formation. Types and morphology of stones of the urinary and biliary tract.
31. Apoptosis: definition, causes, significance for the body. Conditions characterized by high and low levels of apoptosis.
32. Necrosis: definition of the concept, causes and mechanisms of development, macro- and microscopic signs, clinical and morphological forms.

33. Gangrene: types, pathological characteristics, significance for the body.
34. Violations of tissue fluid content. Edema, dropsy: causes, significance for the body.
35. Venous congestion: types, causes, changes in organs (lungs, liver, spleen, kidneys, skin, etc.), significance for the body.
36. Portal hypertension syndrome: causes, clinical and morphological manifestations, complications.
37. Anemia: causes and significance for the body.
38. Heart attack: definition of the concept, causes, types, morphological characteristics, outcomes.
39. Anemic heart attacks: their causes and localization, significance for the body.
40. Hemorrhagic infarctions: their causes, localization, significance for the body.
41. Thrombosis: definition of the concept, causes, mechanism of thrombus formation, local and general factors of thrombus formation, classification of blood clots, their significance and outcomes.

42. Embolism: definition, classification, complications of embolism.
43. Fat embolism, causes and significance, diagnosis.
44. Air and gas embolism: causes, significance.
45. Tissue and bacterial embolism: causes, significance.
46. Thromboembolism of the arteries of the pulmonary circulation: types, causes, significance for the body.
47. Thromboembolism of the arteries of the systemic circulation: causes, significance for the body.
48. Bleeding and hemorrhage: types, causes, outcomes, significance for the body.
49. DIC syndrome: causes, morphological characteristics.
50. Infectious – toxic shock: etiology, pathogenesis, pathological anatomy.

Section 2.

51. Inflammation: definition of the concept, etiology, classification, morphological characteristics of the phases of inflammation (alteration, exudation, proliferation).
52. Exudative inflammation: its types, morphological characteristics.
53. Serous inflammation: causes, mechanism of development, morphological characteristics, significance, outcome.
54. Fibrinous inflammation: types, causes, mechanism of development, morphological characteristics, significance, outcome.
55. Purulent inflammation: causes, mechanism of development, morphological characteristics, significance, outcome.
56. Catarrhal inflammation: causes, mechanism of development, morphological characteristics, significance, outcome.
57. Hemorrhagic inflammation: causes, mechanism of development, morphological characteristics, significance, outcome.
58. Proliferative inflammation: types, causes, development mechanisms, morphological characteristics, outcome.
59. Granulomatous inflammation: morphogenesis and types of granulomas, clinical significance.
60. Inflammation in tuberculosis: morphological characteristics of alterative, exudative and productive tissue reactions
61. Inflammation in primary, secondary and tertiary syphilis. Morphological characteristics and outcomes.

62. Morphological changes in the organs of the immune system (lymph nodes, spleen, bone marrow, thymus) upon stimulation of humoral immunity.

63. Causes and morphological characteristics of changes in the organs of the immune system in the lymph nodes, spleen, bone marrow, thymus) upon stimulation of cellular immunity.

64. Classification and morphological characteristics of immediate hypersensitivity reactions.

65. Morphological characteristics of immunopathological reactions of the reagin type.

66. Morphological characteristics of delayed-type hypersensitivity reactions (DTH).

67. Primary and secondary immunodeficiency syndromes: classification, causes, changes in the organs of the immune system, complications.

68. The essence of compensatory-adaptive processes and their classification.

69. Regeneration: definition of concepts, types, biological significance, morphological characteristics.

70. Granulation tissue and its biological properties.

71. Wound healing by primary and secondary intention.

72. Hypertrophy and hyperplasia: definition of the concept, types, significance for the body.

73. Hypertrophy of the right ventricle of the heart: causes, significance for the body, stages of the process.

74. Hypertrophy of the left ventricle of the heart: causes, significance for the body, stages of the process.

75. Classification of types of local atrophy, morphology, outcomes.

76. Exhaustion - general atrophy: causes, significance, changes in organs.

77. Metaplasia and its types, significance for the body.

78. Dysplasia, intraepithelial neoplasia, carcinoma in situ, definition of the concept, types, causes, significance for the body, examples.

79. Definition of the concept and basic properties of a tumor. The difference between tumor growth and tissue proliferation during regeneration, hyperplasia, and chronic inflammation.

80. Tumors: definition of the concept, theories of occurrence. Signs of cellular and tissue atypia in tumors.

81. Molecular genetic basis of carcinogenesis. Proto-oncogenes, suppressor genes, genes responsible for DNA repair, genes-regulators of apoptosis, their role in the development and progression of tumors.

82. Appearance and growth characteristics of tumors, Concept of tumor progression. Stages, types and routes of metastasis.

83. Local and general effect of a tumor on the body.

84. Principles of tumor classification. The role of the pathologist in the diagnosis of tumors.

85. Benign tumors of the epithelium: definitions, localization, basic principles of classification, morphological characteristics..

86. Precancerous processes. Obligate and facultative precancer. Stages of cancer. Methods of morphological diagnosis of precancerous processes.

87. Cancer: definition, localization, basic principles of classification, morphological characteristics.

88. Tumors of the diffuse endocrine system (carcinoids) of the appendix, small intestine, bronchi.

89. Benign and malignant tumors of mesenchymal origin.

90. Tumors of melanin-forming tissue: definitions, localization, basic principles of classification, morphological characteristics.
91. Tumors of the nervous system and meninges: definitions, localization, basic principles of classification, morphological characteristics.
92. Skin tumors (benign and malignant).
93. Teratomas, types: histioid, organoid, organismoid. Examples. Section 3.
94. Classification of anemia, causes, pathological anatomy, outcomes.
95. Clinical and anatomical classification of leukemia. Morphological differences between acute and chronic leukemias.
96. Pathological characteristics of acute leukemia.
97. Pathomorphological characteristics of chronic leukemia.
98. Khodkin's lymphoma: macro and microscopic picture, forms, complications. Causes of death.
99. Non-Hodgkin lymphomas: typing, classification, pathological anatomy, cause of death.
100. Multiple myeloma.
101. Changes in connective tissue during rheumatism: histological and histochemical characteristics, causes, mechanism of development, outcomes, significance for the body.

102. Rheumatism: etiology, pathogenesis, changes in connective tissue.
103.Rheumatic endocarditis: types, pathological anatomy, outcomes, complications, causes of death of patients.
104. Clinical and anatomical forms of rheumatism and their characteristics.
105. Pathological anatomy of rheumatoid arthritis.
106. Pathological anatomy of systemic lupus erythematosus.
107. Changes in the heart, systemic and pulmonary circulation with mitral stenosis.
108. Changes in the heart, in the systemic and pulmonary circulation with mitral insufficiency.
109. Changes in the heart, systemic and pulmonary circulation with aortic defects.
110. Congenital heart defects: principles of classification. Clinical and morphological manifestations of defects of the interatrial and interventricular septa, patent ductus arteriosus.
111. Myocarditis: classification, pathological anatomy, pathogenesis.
112.Cardiomyopathies, classification, morphological characteristics.
113. Systemic vasculitis, classification, examples.
114. Etiology, pathogenesis and morphology of atherosclerosis.
115. Clinical and anatomical forms of atherosclerosis and associated complications.
116.Arterial aneurysms (causes, morphology, complications).
117. Symptomatic (secondary) arterial hypertension: causes, complications.
118.Changes in the brain during hypertension and related complications.
119.Hypertension: etiology, pathogenesis, pathological anatomy, causes of death.
120. Chronic ischemic heart disease: causes, types, morphological characteristics, complications.
121. Myocardial infarction, causes, stages of development and outcome.

122. Cerebrovascular diseases etiology, types, morphological characteristics.
123. Hemorrhagic stroke types, causes, outcome.
124.Ischemic stroke, causes, outcome.
125. Lobar pneumonia: etiology. Pathological anatomy. Complications and pathomorphosis of lobar pneumonia.
126. Focal pneumonia; morphological characteristics depending on the etiology (viral, staphylococcus and streptococcus, pneumococcus, gram bacteria, fungi).
127.Chronic obstructive pulmonary diseases (COPD): types, etiology, morphological characteristics.
128. Chronic obstructive bronchitis (definition, classification, etiology, patho- and morphogenesis, complications).
129. Bronchiectasis: types, mechanism of development, pathological anatomy.
130. Pulmonary emphysema: types, mechanisms of development, pathological anatomy.
131. Bronchial asthma: etiology, mechanism of development, pathological anatomy.
132. Restrictive lung diseases: types, clinical significance, outcome.
133. Lung cancer: classification, localization, morphological characteristics, features of metastasis, complications, causes of death of patients. 134. Pneumoconiosis (anthracosis, silicosis): mechanisms of development, pathological anatomy.

Section 4.

135. Precancer and esophageal cancer.

136. Etiology, pathogenesis, morphological characteristics of gastritis. The role of Helicobacter pylori in the development of gastritis.
137. Chronic gastritis: causes, mechanism of development, morphological forms identified based on the study of gastrobiopsy and their characteristics. 138.Peptic ulcer of the stomach and duodenum and their complications. The role of Helicobacter pylori in the etiology of gastric and duodenal ulcers. 139. Stomach cancer: localization, classification. Features of metastasis, complications and causes of death in patients with gastric cancer.
140. Appendicitis, classification, complications.
141. Nonspecific ulcerative colitis and Crohn's disease: etiology, pathogenesis, pathological anatomy, complications. The role of a morphologist in the diagnosis of intestinal diseases.

142. Precancer and colon cancer.
143. Massive necrosis (toxic degeneration) of the liver: causes, morphological characteristics, complications.
144. Effects of alcohol (ethanol on the body, chronic alcohol intoxication (clinical and morphological characteristics, complications). 145. Hepatitis: principles of classification, morphological features depending on the etiology, outcomes.
146. Viral hepatitis B: forms, pathological anatomy, outcome.
147. Viral hepatitis C: clinical and morphological characteristics, course features, outcome
148. Liver cirrhosis: classification, pathological anatomy, complications.
149.Tumors of the liver and biliary tract.
150. Acute and chronic cholecystitis (definition, etiology, classification, patho- and morphogenesis, complications).
151. Pancreatitis: etiology, classification, pathological anatomy, complications.
152.Pancreatic cancer.
153. Acute glomerulonephritis: etiology. Pathogenesis, outcome.

154. Rapidly progressive glomerulonephritis: etiology, pathogenesis, pathological anatomy, complications.
155. Glomerulonephritis with chronic nephrotic syndrome: types, morphological characteristics, complications.
156. Primary and secondary nephrotic syndrome: definition, causes, morphological characteristics.
157. Amyloid nephrosis: morphological characteristics, causes of death of patients.
158. Classification of tubulopathies. Acute tubular necrosis of the kidneys (acute renal failure).
159. Pyelonephritis: etiology, pathogenesis, types, morphological characteristics, cause of death of patients.
160. Urolithiasis and its complications.
161. Cystic kidney diseases. Classification, morphological characteristics, complications.
162. Kidney tumors.
163. Main causes and pathological anatomy of uremia.
164. Inflammatory diseases of the female and male genital organs: causes, pathological anatomy, significance for the body.
165. Dyshormonal diseases of the genital organs: prostate hypertrophy, mammary gland hyperplasia, uterine mucosa. 166. Precancerous processes and cervical cancer.
167. Precancerous processes and cancer of the uterine body.
168. Precancer and breast cancer.
169. Ovarian cancer.
170. Prostate cancer.
171. Pathological anatomy of toxicosis of pregnancy (preeclampsia).
172. Ectopic pregnancy and its complications.
173. Pituitary tumors.
174.Adrenal tumors.
175. Diseases of the thyroid gland (goiter, thyrotoxicosis, thyroiditis, tumors).
176.Hyperparathyroidism: classification, causes, clinical and morphological manifestations, complications.
177. Diabetes mellitus type I and II, changes in the pancreas, blood vessels, kidneys, liver.
178. Influenza: etiology, pathological anatomy of various clinical forms of influenza, pathogenesis, complications, causes of death.
179. Measles: etiology, pathogenesis, morphological characteristics, complications, causes of death.
180. Typhoid fever: etiology, pathogenesis, characteristics of intestinal changes and their outcomes.
181. Dysentery: etiology. Pathogenesis, morphological characteristics, intestinal complications, and their outcomes.
182. Cholera: etiology, pathogenesis, morphological characteristics, outcomes.
183. Intestinal amebiasis: morphological characteristics.
184. Diphtheria: etiology, pathogenesis, pathological anatomy. Complications, causes of death.
185. Scarlet fever: etiology, pathogenesis, pathological anatomy of the first and second periods, complications, causes of death.
186. Meningococcal infection: its 3 main forms, pathogenesis, morphological characteristics, complications, causes of death.
187. Pathological anatomy of infection caused by HIV.

188. Primary tuberculosis complex in the lung and its complications.
189. Forms of hematogenous generalized tuberculosis and their morphological characteristics.
190. Hematogenous tuberculosis of bones and joints.
191. Secondary tuberculosis: its forms, features of the course, complications.
192. Primary syphilitic complex.
193. Secondary and tertiary syphilis - clinical and morphological characteristics
194.Sepsis: definition of the concept, difference between sepsis and other infectious diseases. Local and general changes in the body during sepsis. 195. Pathological anatomy of septicemia and septicopyemia.
196. Acute bacterial endocarditis: pathomorphological characteristics, complications, causes of death of patients.
197. Protracted bacterial endocarditis: pathological anatomy and pathogenesis, complications.
198. Infectious and allergic complications in prolonged bacterial endocarditis. Pathomorphosis of prolonged bacterial endocarditis in modern conditions.

199. HIV - infection: pathogens, stages of the process, morphological changes in the immune and nervous systems.
200. Opportunistic infections in AIDS.

Test control

1. The liver is enlarged, densely elastic in consistency, with a smooth surface, rounded edge, clay-yellow in color when cut. These changes correspond to @1) alcoholic liver damage
@2) chronic venous congestion @3)
hydropic degeneration of the liver @4)
viral hepatitis B
+ + + 1000000*4*1***

2. Migrating blood clots in the veins are formed when:
1) gestosis
2) atherosclerosis
3) pancreatic cancer
4) leukemia
5) anemia
+ + + 0010000*5*1***

3. With pulmonary fibrosis and emphysema, the heart develops

1) myocardial atrophy

2) obesity

3) left ventricular hypertrophy

4) right ventricular hypertrophy

5) myocardial infarction

+ + + 0001000*5*1***

4. Embolic purulent nephritis is characteristic of
1) senile amyloidosis
2) septicemia
3) septicopyemia
4) tuberculosis
5) syphilis
+ + + 0010000*5*1***

5. Metastasis of malignant tumors occurs due to embolism

1) microbial
2) fabric
3) fat
4) foreign bodies
5) gas
+ + + 0100000*5*1***

6. Hyalinosis of the heart valve leaflets in rheumatism leads to
@1) cardiomyopathy
@2) heart defect
@3) myocardial atrophy
@4) rupture of papillary muscles
@5) myocarditis
+ + + 0100000*5*1***

7. The value of hyalinosis in the bottom of a chronic ulcer @1)
does not affect the outcome of the disease
@2) promotes the development of
sclerosis @3) leads to malignancy @4)
impedes epithelial regeneration @5) leads
to the formation of adhesions
+ + + 0001000*5*1***

8. General hyalinosis of the walls of small arteries and arterioles
causes @1) a decrease in blood pressure
@2) transient increase in blood pressure @3)
persistent increase in blood pressure @4) brown
atrophy of organs
@5) general hemosiderosis
+ + + 0010000*5*1***

9. The most common form of
amyloidosis @1) hereditary
@2) secondary
@3) senile
@4) endocrine

@5) idiopathic
+ + + 0100000*5*1***

10. The most common cause of death in various forms of amyloidosis
@1) chronic renal failure
@2) acute renal failure
@3) acute cardiovascular failure @4) cerebral hemorrhage
@5) myocardial infarction
+ + + 1000000*5*1***

Situational tasks

Task No. 1.

A patient with an unreducible inguinal hernia underwent hernia repair. During the operation, it was discovered that the loop of the small intestine located in the hernial sac, for 30 cm, was dark red in color and dull.

1. The nature of the pathological process in the intestine: 1) tumor; 2) ischemic heart attack; 3) hemorrhagic infarction; 4) ischemia; 5) hematoma.
+ + + 00100*5***

2. Possible causes: 1) atherosclerosis of the mesenteric artery; 2) thromboembolism mesenteric artery; 3) angioma; 4) strangulation of intestinal loops by a hernial sac; 5) intestinal malformation.
+ + + 00010*5***

3. Microscopic changes in epithelial cells; 2)intestinal wall: 1) grainy dystrophy hemosiderosis; 3) necrosis of the wall; epithelial cells of 4) hemorrhages; 5) necrosis the mucous membrane.
+ + + 00111*5***

Task No. 2.

A 50-year-old man, suffering from a severe form of hypertension, suddenly loses consciousness on the street and falls. He is taken to the nervous department, and there, upon examination, right-sided hemiparesis and loss of speech are discovered.

1. Localization of the pathological process in the brain: 1) white matter of the cerebellum; 2) subcortical nodes and internal capsule of the brain on the left; 3) white and gray matter of the right temporal lobe of the brain; 4) caudate nucleus of the right hemisphere of the brain; 5) white and gray frontal lobe substance brain.
+ + + 01000*5***

2. The nature of the pathological process in the brain: 1) tumor; 2) abscess; 3) cyst; 4) ischemic infarction; 5) hematoma
+ + + 00001*5***

3. Changes in the vessels of the brain that caused this pathology: veins; 2) fibrinoid 1) thrombosis necrosis of the walls of arterioles and small arteries; 3) rupture of arterioles and small walls arteries; 4) increased permeability of small vessels and erythrocyte diapedesis; 5) arterial thrombosis.
+ + + 011100*5***

Task No. 3.

A 42-year-old woman underwent appendectomy for phlegmonous appendicitis. On the 6th day she

was allowed to walk. While trying to get up, the patient suddenly turned blue, wheezed, lost consciousness and died a few minutes later.

1. Your diagnosis: 1) thromboembolism of the main trunk of the pulmonary artery; 2) thromboembolism of small branches of the pulmonary artery; 3) myocardial infarction; 4) pulmonary infarction; 5) shock.
+ + + 10000*5***

2. The mechanism of death is associated with: 1) spasm of the coronary arteries; 2) pulmonary edema; 3) ischemic cerebral stroke; 4) hemorrhages in organ tissue; 5) pulmonary – coronary reflex.
+ + + 10001*5***

3. Possible primary localization of blood clots: 1) portal vein; 2) veins of the thigh;
3) aorta; 4) veins of the pelvic plexuses; 5) coronary arteries.
+ + + 01010*5***

Macropreparations

1. Fatty liver degeneration.
2. Atherosclerosis of the aorta with thrombus.
3. Brown induration lungs
4. Gallstone disease.
5. Kidney (spleen) infarction.

Microspecimens

1. Splenic infarction.
2. Kidney amyloidosis.
3. Necrotic nephrosis.
4. Nutmeg liver.
5. Blood clots of the calf veins.

SAMPLE SUBJECTS OF ABSTRACTS:

1. Modern research methods in pathological anatomy.
2. History of domestic pathological anatomy.
3. Apoptosis and other types of cell death. Role in normal and pathological conditions.
4. Problems of cellular aging and immortality.
5. Autoimmunization and autoimmune diseases. What's new?
6. The problem of HIV infection.
7. Modern ideas about oncogenesis
8. Leukemia and lymphomas - modern methods of diagnosis and treatment.
9. The problem of population mortality - strokes, myocardial infarction and others diseases of the cardiovascular system.
10. Modern understanding of the pathogenesis and diagnosis of vasculitis.

1. Interim certification - exam

Forms of milestone certification from the RPD disciplines	*number of exemplary (typical) tasks*
Tests	*10 questions*
Situational tasks	*5 problems with standard answers*
Practical skills	*10 skills*
Interview	*All control questions for the section*

Test control

1. The first metastases during hematogenous metastasis of malignant tumors of the abdominal organs occur in
@1) lymph nodes @2)
lungs
@3) spleen
@4) liver
@5) brain
+ + + 00010*5*1***

2. Infiltrating tumor growth is characterized by the following signs
@1) tumor cells grow into organ capsules, adjacent tissues and vessel walls @ 2) the tumor is clearly demarcated from surrounding tissues
@3) the tumor is encapsulated @4) the
tumor has the appearance of a node
@5) a kind of capsule forms around the tumor
+ + + 10000*5*1***

3.The oncogenic effect of ionizing radiation appears after @1)
less than 2 years
@2) 2-5 years
@3) 5-10 years
@4) more than 10 years
+ + + 0001*4*1***

4.Oncogenic viruses
@1) flu
@2) polio
@3) papilloma viral infection @4)
hepatitis B
@5) smallpox
@6) true &3), &4) @7)
true &2), &3), &5
+ + + 0000010*7*1***

5. Women treated with estrogen therapy have an increased risk of developing tumors
@ 1) endometrial cancer
@2) breast cancer @3)
lung cancer
@4) skin cancer
@5) eye melanomas
@6) true &1), &2), &3)
@7) true &1), &2)
+ + + 0000001*7*1***

6. Growth-stimulating genes (proto-
oncogenes) @1) epidermal growth factor
@2)ras
@3)Rb
@4) p53
@5) cadherins
@6) true &1), &2), &3)
@7) true &1), &2)
+ + + 0000001*7*1***

7. Genes regulating apoptosis
@1) epidermal growth factor
@2) ras
@3)Rb
@4) p53
@5) cadherins
+ + + 00010*5*1***

8. Mechanisms of activation of carcinogenesis promoter genes
@1) changes in gene structure - mutations, deletions, etc. @2)
changes in the regulation of gene expression
@3) inactivation of suppressor genes
@4) damage to genes regulating apoptosis
@5) disruption of DNA repair genes
@6) true &1), &2) @7)
true &1), &3), &5
+ + + 0000010*7*1***

9. Macroscopic signs of malignancy of pigmented nevus @1)
increase in size
@2) reduction in size @ 3)
change in color
@4) inflammation in surrounding tissue
@5) scarring
@6) true &1), &3) @7)
true &1), &2), &5
+ + + 0000010*7*1***

10. Preferential localization of metastases of malignant brain tumors

@1) light
@2) skull bones
@3) pia mater @4) ventricular
ependyma @5) lymph nodes
of the neck @6) correct &1),
&2), &3)
@7) true &3), &4)

+ + + 0000001*7*1***

Situational tasks

Task No. 1.

A young woman suffering from thrombophlebitis of the lower limb suddenly developed right-sided paralysis.

1. Changes in the brain that caused paralysis: 1) tumor; 2) hemorrhage; 3) ischemic infarction; 4) hemorrhagic infarction; 5) cyst.

+ + + 00100*5***

2. Circulatory disorders that occurred in this case: 1) general venous congestion; 2) general arterial plethora; 3) local arterial anemia; 4) local venous congestion; 5) thromboembolism of the middle cerebral artery.

+ + + 00101*5***

3. Possible reasons for the development of this process in the brain: 1) orthograde thromboembolism of the cerebral artery; 2) paradoxical thromboembolism of the cerebral artery; 3) coarctation of the aorta; 4) defect of the interventricular septum of the heart; 5) stenosis of the pulmonary artery.

+ + + 01010*5***

Task No. 2.

In a 50-year-old patient who had been suffering from purulent otitis for 6 years, an autopsy revealed a cavity in the left temporal lobe with a diameter of 6 cm, filled with purulent exudate and limited by a fibrous capsule 1 cm thick.

1. The nature of the pathological process in brain tissue: 1) chronic abscess; 2) acute abscess; 3) diffuse purulent inflammation; 4) tumor; 5) hemorrhage.

+ + + 10000*5***

2. Source of infection: 1) purulent otitis media; 2) purulent rhinosinusitis; 3) purulent eustachitis; 4) acute rhinitis; 5) thrombophlebitis.

+ + + 10000*5***

3. Possible complications: 1) purulent meningitis; 2) pyocephaly; 3) purulent encephalitis; 4) thrombophlebitis; 5) sclerosis.

+ + + 11100*5***

Task No. 3.

In a 76-year-old patient who suffered two myocardial infarctions and died of chronic heart failure, an autopsy revealed a dense dark red wedge-shaped area under the pleura. In the subpleural parts, its cavity is 3.5 cm in diameter, filled with purulent exudate. The pleura above it is dull, swollen, full-blooded, rough, covered with filmy deposits of a grayish-yellow color. A branch of the pulmonary artery obstructed by a thrombus is visible next to the cavity.

1. Pathological processes found in the lung: 1) chronic abscess; 2) hemorrhagic infarction; 3) cancer; 4) acute abscess; 5) bronchiectasis.

+ + + 01010*5***

2. Pathological process in the pleura: 1) fibrinous-purulent pleurisy; 2) pleural empyema; 3) catarrhal pleurisy; 4) pleural fibrosis; 5) pleural carcinomatosis.

+ + + 10000*5***

3. These processes in the lung were preceded by: 1) hemorrhagic pulmonary infarction with secondary infection; 2) septic pulmonary infarction; 3) bacterial embolism of the branches of the pulmonary artery; 4) thromboembolism of the branches of the pulmonary artery; 5) compression of the vessel by the tumor.

+ + + 10010*5***

Task No. 4.

In a 50-year-old woman, a soft-consistency tumor-like formation measuring 10x8x7 cm is identified in the subcutaneous tissue of the thigh. The tumor is clearly demarcated from the surrounding tissues, covered with a thin connective tissue capsule, and is represented by adipose tissue in the section. Histologically, it is composed of fatty lobules of irregular shape and varying sizes.

1. Your diagnosis: 1) hibernoma; 2) lipoma; 3) liposarcoma; 4) fibrolipoma; 5) muscle lipoma

+ + + 01000*5***

2. Signs that allowed the diagnosis: 1) tissue atypia; 2) expansive growth; 3) the presence of a capsule; 4) cellular atypia; 5) infiltrative growth.

+ + + 11100*5***

3. Prognosis after tumor removal: 1) favorable; 2) unfavorable; 3) relapses are possible; 4) metastases are possible; 5) tumor malignancy is common.

+ + + 10000*5***

Task No. 5.

A small bleeding nodule on the skin of the lower leg was surgically removed from a 20-year-old girl. A few months later, an enlargement of the inguinal lymph nodes appeared, the liver was enlarged and lumpy. An X-ray examination revealed foci of destruction in the pelvic bones and ribs. A biopsy of the lymph nodes revealed metastasis of a malignant tumor. The tumor cells contained brown pigment. Perls' reaction was negative.

1. Diagnosis: 1) angiosarcoma; 2) melanoma; 3) fibrosarcoma; 4) Kaposi's sarcoma; 5) skin cancer.

+ + + 01000*5***

2. Pigment that determines the color of the tumor: 1) hemosiderin; 2) hematoidin; 3) porphyrin; 4) lipofuscin; 5) melanin

+ + + 00001*5***

3. The clinical picture is due to: 1) metastases to the lymph nodes; 2) liver metastases; 3) bone metastases; 4) inflammation of the lymph nodes; 5) hemosiderosis of internal organs

+ + + 11100*5***

Practical skills and abilities

Macropreparations

1. Fibrinous pericarditis
2. Diphtheria of the larynx
3. Phlegmonous appendicitis.
4. Brain abscess
5. Chronic lung abscess
6. Chronic calculous pyelonephritis with hydronephrosis
7. Uterine fibroids
8. Melanoma metastases to the liver.
9. Bronchial cancer.
10. Breast cancer.

Microspecimens

1. Phlegmonous appendicitis.
2. Embolic purulent nephritis.
3. Tuberculosis of the lymph node.
4. Autoimmune thyroiditis (goiter) Hashimoto's.
5. Myocardial hypertrophy.
6. Cavernous hemangioma of the liver.
7. Uterine leiomyoma.
8. Fibroadenoma of the mammary gland.
9. Stomach cancer (adenocarcinoma).
10. Squamous cell carcinoma of the bronchus with keratinization.

For routine monitoring under section 5

Test examples

1. In the International Classification and Nomenclature of Diseases, pathological conditions are divided into nosological units (forms) based on a combination of the following characteristics:

1) established etiology and pathogenesis
2) characteristic clinical and morphological picture
3) socio-economic significance
4) severity of the process
5) participation in thanatogenesis
+ + + 11100*5***

2. Methods for determining cyto- and histogenesis, the degree of tumor differentiation
1) histological and cytological
2) immunohistochemical
3) cytogenetic
4) polymerase chain reaction
5) in situ hybridization
6) all of the above
+ + + 000001*6***

3. Sources of thromboembolism of the pulmonary trunk and its branches
1) aorta
2) veins of the leg
3) hepatic veins
4) tricuspid valve
5) veins of the thigh
6) left ventricular aneurysm
7) pelvic veins
8) bicuspid valve
+ + + 01011010*8***

4. Time standard for intraoperative (urgent) research
1) up to 20-25 minutes.
2) up to 1 hour.
3) within 5 days.

4) up to 10 days.
+ + + 10000*4***

5. For immunohistochemical research, the material is fixed in
1) acetone
2) ethyl alcohol 96%
3) methanol
4) 10% neutral buffered formalin
5) saline solution
+ + + 00010*5***

6. Complications of the underlying disease
1) tumor metastases to the liver
2) pleural carcinomatosis
3)septicopyemia
4) DIC syndrome
5) lobar pneumonia
+ + + 00110*5***

7. Women treated with estrogen therapy have an increased risk of developing tumors

1) endometrial cancer
2) breast cancer
3) liver cancer
4) skin cancer
5) melanoma of the eye
+ + + 111000*4***

8. Krukenberg tumor is @1) ovarian
teratoblastoma
@2) bilateral solid ovarian cancer @3) metastasis
of gastric cancer to the ovaries
@4) gastric cancer metastasis to the supraclavicular lymph node @5)
kidney tumor
+ + + 0010000*5*1***

9. For typhoid fever, typical is @1)
fibrinous colitis
@2) diphtheritic inflammation of the small intestine
@3) ulcerative colitis
@4) brain-like swelling of Peyer's patches, formation of ulcers in the small intestine
@5) catarrhal gastritis
+ + + 0001000*5*1***

10. Type of inflammation that develops in the colon during dysentery
@1) serous
@2) fibrinous
@3) necrotic
@4) hemorrhagic
@5) purulent

+ + + 0100000*5*1***

EXAMPLES OF SITUATIONAL TASKS:

Z**task 1.**A patient with tuberculosis died of pulmonary heart failure. On autopsy revealed interstitial myocarditis, multiple lesions the size of millet grains in the lungs, liver and spleen.

Questions and tasks:

1. Name the changes in the lungs, liver and spleen.
2. What are these "foci" called?
3. What tissue reaction do they reflect?
4. What is included in this education?
5. What is the outcome of this education?

Answers:

1. Changes in the lungs, liver and spleen are called miliary tuberculosis.
2. "Lessons" are called granulomas.
3. They reflect a tissue reaction - productive.
4. This formation includes: caseous necrosis, epithelioid cells, lymphocytes and Pirogov-Langhans cells.
5. The outcome of this formation is scarring.

Z**problem 2**. A 46-year-old man, after hypothermia, suddenly felt acute pain in the left half of the chest, shortness of breath, headaches and muscle pain, chills; temperature 39.2^{0}S. He was admitted to the clinic on the 3rd day of illness. The examination revealed absence of breathing in the upper lobe of the left lung, pleural friction noise, tachycardia, neutrophilic leukocytosis, and increased ESR. Despite the treatment, after 2 weeks the patient has a cough with purulent sputum, pain in the chest on the left, a temperature of 38.5^{0}WITH.

Questions and tasks:

1. What disease did the patient develop?
2. Stage of the disease?
3. What is the cause of pleural friction noise?
4. Name the complication that developed in the patient.
5. List possible extrapulmonary complications.

Answers:

1. The patient developed lobar pneumonia.
2. Stage of the disease - stage of gray hepatization.
3. Pleural friction noise is associated with fibrinous pleurisy.
4. A complication that developed in the patient is a lung abscess.
5. Possible extrapulmonary complications: pericarditis, mediastinitis, peritonitis, purulent arteritis, purulent meningitis.

Z**luck 3.**Sick80 years old, admitted to the clinic with progressive heart failure. History: 2 years ago, transmural myocardial infarction. During the examination, a significant expansion of the boundaries of the heart was noted, heart pulsation in

apical areas, shortness of breath, cough with rusty sputum, enlarged liver, swelling. Right-sided hemiplegia suddenly developed.

Questions and tasks:

1. What group does chronic cardiac aneurysm belong to?
2. Name diseases that belong to the same group of diseases.
3. What is the common location of chronic cardiac aneurysm?
4. What is the wall of a chronic aneurysm represented by?
5. Name complications and possible causes of death in chronic aneurysm hearts.

Answers:

1. Chronic cardiac aneurysm belongs to the group of chronic ischemic heart diseases.
2. Diseases belonging to the same group of diseases: macrofocal cardiosclerosis, diffuse small-focal cardiosclerosis, ischemic cardiomyopathy.
3. Frequent localization of chronic cardiac aneurysm: the anterior wall of the left ventricle, apex of the heart.
4. The wall of a chronic aneurysm is represented by scar tissue.
5. Complications and possible causes of death in chronic cardiac aneurysm: chronic heart failure, rupture of the aneurysm wall with hemopericardium, thromboembolic complications, repeated myocardial infarction.

Z**problem 4.**The patient55 years old due to epigastric pain, nausea, the appearance of dark-colored feces (melena), a gastroscopy was performed and in the area of the lesser curvature of the stomach an ulceration with a diameter of 6 cm with roll-like edges and a sinking central part covered with a gray coating was found. A biopsy was taken and cancer was discovered. A gastric resection operation was performed with the greater and lesser omentum.

Questions and tasks:

1. Name the macroscopic form of stomach cancer.
2. What height in relation to the lumen of the stomach is typical for her?
3. What histological type of cancer is most often found in this form of cancer? stomach?
4. Why were the greater and lesser omentum removed along with the stomach?
5. Where else can you look for lymphogenous metastases of stomach cancer?

Answers:

1. The macroscopic form of stomach cancer is saucer-shaped.
2. Growth in relation to the lumen of the stomach is exophytic.
3. Histological type of cancer that is most often found in this form of cancer stomach - adenocarcinoma.
4. The greater and lesser omentums were removed along with the stomach, because they Regional lymph nodes are located where gastric cancer first metastasizes.
5. Lymphogenic metastases of stomach cancer can be looked for: in the ovaries (Kruckenberg metastases); in perirectal tissue (Schnitzler metastases); in the left supraclavicular lymph node (Virchow's gland).

Z**problem 5.**Patient Z.,68 years old, was admitted to the clinic for opening an abscess. After opening the abscess, the body temperature remained 39°C, and shortness of breath appeared. Blood tests show leukocytosis with a shift to promyelocytes, increased ESR. Urine tests showed slight proteinuria, leukocyturia, and single red blood cells. Death occurred due to symptoms of acute heart failure.

Questions and tasks:

1. What clinical and morphological form of sepsis developed in the patient?
2. What type of sepsis depends on the nature of the entrance gate?
3. What macroscopic changes are due to the characteristics of distribution infection can be found in the lungs, heart, kidneys, brain?
4. What macroscopic changes in the spleen were found at autopsy?

Answers:

1. Septicopyemia.
2. Surgical.
3. In the lungs - metastatic abscesses, in the heart - acute septic polyposis-ulcerative endocarditis and interstitial myocarditis, in the brain - abscesses and purulent meningitis, in the kidneys - embolic purulent nephritis.
4. Septic spleen: enlarged, flabby consistency, pulp produces abundant scraping

Complex situational task

A 45-year-old patient was diagnosed with pulmonary tuberculosis in a correctional labor institution, where he underwent a course of chemotherapy. After release in for 2 years, frequent exacerbations, the latter manifested itself as a productive cough with mucopurulent sputum, progressive shortness of breath, increased body temperature, increasing weakness. combined resection was performed at the anti-tuberculosis dispensary upper lobe and segment C VI of the right lung with three-rib thoracoplasty. In the postoperative period - failure bronchial stump and pleural empyema on the right. The patient died 2 weeks later. after surgery from massive pulmonary hemorrhage.

Not was treated. IN

Final clinical diagnosis. Fibrous-cavernous tuberculosis of the upper lobe of the right lung. Operation: combined resection of the upper lobe and segment C VI of the right lung with three-rib thoracoplasty (date).

Bronchial fistula of the stump of the right upper lobe bronchus. Acute pleural empyema on the right. Arrosion of the branch of the pulmonary arteries. Massive pulmonary bleeding. Hemorrhagic shock.

Pathological diagnosis.

Main disease: fibrous-cavernous tuberculosis of the right lung in the phase of pronounced activity of the inflammatory process (CD+): large and giant cavities in the upper lobe and segment C VI of the right lung (surgical material No.) with hematogenous dissemination, caseous bronchitis and bronchiolitis, productive necrotizing mediastinal lymphadenitis. Operation: combined resection of the upper lobe and segment C VI of the right lung with three-rib thoracoplasty (date).

Complications:chronic cor pulmonale (heart mass430 g, Failure of the stump of the right upper lobe bronchus: necrotizing granulomas in the wall of the bronchial stump. Acute pleural empyema on the right of mixed etiology (mycobacterium tuberculosis, Proteus, Staphylococcus aureus).

0.8) Cachexia. bronchial stump.

Polysegmental fibrinous purulent pneumonia of the lower lobe of the right lung (Staphylococcus aureus). Arrosion
branches of the bronchial artery in the stump of the right upper lobe bronchus. Massive bleeding (2100 ml) into the right pleural cavity. Acute
anemia of internal organs.

Choose one correct answer

1. Cause of death of the patient: a. Acute
pleural empyema on the right. b.
Polysegmental pneumonia. V.**Massive**
pulmonary hemorrhage. d. Acute pulmonary
heart failure.

Choose one correct answer

2. There was a discrepancy in diagnoses for the disease:
a. Mainly.
b. Combined.
V. To a competitor.
Mr. Fonovoy.
d. Related.
e.**Matching diagnosis for the underlying disease**

Select one correct answer 3.
This form of tuberculosis: a**.**
Contagious.
b. Not contagious.

Select all correct answers
4. Possible complications of fibrous-cavernous pulmonary tuberculosis: a.
Breakthrough of the cavity into the pleural cavity. b**. Lung cancer**.

V.**Secondary amyloidosis.** G.
Chronic cor pulmonale. d.
Hemosiderosis of the lungs.
e.**Pulmonary heart failure. and.**
Spontaneous pneumothorax. h.
Subcutaneous emphysema.

Full list of questions, tests, tasks, macro and micropreparations for practical exercises are given in published Department of teaching aids:

1. Pathological anatomy. Part 1: method. developments for practice classes for II-III year students of all faculties. honey. universities / compiled by: I.S. Derizhanova, V.V. Voloshin, V.F. Golovitsky [and others]; Height. state honey. university, [department. pathological anatomy]. - 4th ed. - Rostov n/d: Publishing house RostGMU, 2013. - 109 p. The same [Electronic resource]: electronic copy. - Access from EUB RostSMU.

2. Pathological anatomy: in 2 hours. Part two: Particular pathology: a textbook for practical classes; comp.: I.S. Derizhanova, V.V. Voloshin, K.A. Atoyan [et al.]; edited by I.S. Derizhanova; Federal State Budgetary Educational Institution of Higher Education Growth of the State Medical University of the Ministry of Health of Russia. – 4th ed., revised and additional. – Rostov n/d: Publishing house Rost State Medical University, 2016. – 100 p. The same [Electronic resource]: electronic copy. – Access from EUB RostSMU.
3. Pathological anatomy. Tests and tasks: textbook. aid for students 3rd year of all faculties / ed. I.S. Derizhanova. – 3rd ed. – Rostov n/d: LaPO, 2009. – Part I. – 178 p. The same [Electronic resource]: electronic copy. – Access from EUB RostSMU.
4. Tests and tasks of programmed control in private pathological anatomy for 3rd year students of all faculties / ed. I.S. Derizhanova. – 2nd ed. – Rostov n/a: Rost State Medical University, 2003. – 280 p.

Description of indicators and criteria for assessing competencies at the stages of their formation, description of assessment scales

	Levels of competency development		
	Threshold	***Sufficient***	***High***
Criteria	Competence formed. Demonstrated threshold, satisfactory sustainable level practical skill	Competence formed. Demonstrated enough level independence, sustainable practical skill	Competence formed. Demonstrated high level independence, high adaptability practical skill

Competency assessment indicators and rating scales

Grade "unsatisfactory" (not accepted) or absence formation competencies	Grade "satisfactorily" (passed) or satisfactory (threshold) level of development competencies	Rated "good" (passed) or sufficient level development competencies	Excellent rating (passed) or high level development competencies
failure to student on one's own demonstrate knowledge when solving assignments, lack independence in application of skills. Absence availability confirmation formation	student demonstrates independence in application of knowledge skills and abilities to solve educational tasks in full According to sample given teacher, by tasks, solution	student demonstrates independent application of knowledge, skills and abilities when deciding tasks, tasks similar samples that confirms Availability	student demonstrates ability to full independence in choosing a method solutions non-standard assignments within disciplines with using

competencies indicates negative development results academic discipline	of which there were shown teacher, it should be considered that competence formed on satisfactory level.	formed competencies for higher level. Availability such competence on sufficient level indicates sustainable fixed practical skill	knowledge, skills and skills, received as in development progress of this discipline, and adjacent disciplines should count competence formed on high level.

Criteria for evaluating forms of control:

Interviews:

Mark	**Descriptors**		
	strength of knowledge	**ability to explain the essence of phenomena, processes, do conclusions**	**logic and subsequence answer**
Great	strength of knowledge, knowledge of basic processes subject matter being studied areas, the answer differs in depth and completeness disclosure of the topic; possession terminological apparatus; logic and consistency answer	high skill explain the essence phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples	high logic and subsequence answer
Fine	solid knowledge of the basic processes of the studied subject area, differs in depth and completeness of the topic; possession terminological apparatus; free mastery of monologue speech, but one or two inaccuracies in the answer are allowed	ability to explain essence, phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; however one or two inaccuracies in the answer are allowed	logic and subsequence answer
satisfactory really	satisfactory process knowledge subject matter being studied areas, answer, different insufficient depth and completeness of the topic; knowledge of basic questions theory. Allowed several errors in	satisfactory ability to give reasoned answers and provide examples; satisfactorily formed analysis skills phenomena, processes. Several are allowed errors in content	satisfactory logic and subsequence answer

	content of the answer	answer	
will not satisfy really	poor knowledge of the subject area being studied, shallow opening Topics; poor knowledge basic theoretical issues, poor analysis skills phenomena, processes. Serious errors in content answer	inability to give reasoned answers	lack of logic and consistency answer

Test control grading scale:

percentage of correct answers	Marks
91-100	Great
81-90	Fine
71-80	satisfactorily
Less than 71	unsatisfactory

Situational tasks:

Mark	**Descriptors**			
	understanding Problems	**analysis situations**	**skills solutions situations**	**professional thinking**
Great	complete implication problems. All requirements, submitted to adania, completed	high benefit analyze situation, draw conclusions	high benefit select method solutions problems faithful solution skills situation	high level professional thoughts
Fine	complete implication problems. All requirements, submitted to adania, completed	benefit analyze situation, draw conclusions	benefit select method solutions problems faithful solution skills situation	residual level professional thoughts. drops one or two precision in the answer
satisfactory really	astastic implication problems. majority requirements declared to adania, completed	satisfactory Naya benefit analyze situation, draw conclusions	satisfactory skills solutions situation	residual level professional thoughts. falls more a bunch of inaccuracies in reply
will not satisfy really	misunderstanding problems. legs requirements, submitted to I hope not	izkaya benefit analyze situation	insufficient solution skills situation	missing

	completed. No Tveta. Did not have experiments to solve hello			

Skills:

Mark	Descriptors		
	consistency theoretical knowledge	**knowledge of the methodology execution practical skills**	**performance practical skills**
Great	system stable theoretical knowledge about services and contraindications, possible complications, regulations, etc.	stable knowledge implementation methods practical skills	independence and correctness fulfillment practical skills skills
Fine	system stable theoretical knowledge about services and contraindications, possible complications, regulations, etc., some are omitted preciseness that independently are detected quickly cope	stable knowledge implementation methods practical skills; some are omitted preciseness that independently are detected quickly cope	independence and correctness fulfillment practical skills skills
satisfy flax	satisfactory theoretical knowledge about services and contraindications, possible complications, regulations, etc.	knowledge of the basic principles of implementation methodology practical skills	independence fulfillment practical skills skills, but go down some mistakes, which are being corrected with help tutor
dissatisfy strictly	low level of knowledge about services Ar contraindications, possible complications, regulations, etc. and/or can't do it on its own demonstrate tactical skills or fulfills them, allowing common mistakes	izky level knowledge methods execution practical skills	epossibility independent performing the skill whether skills

Presentations/reports

Mark	Descriptors			
	Disclosure Problems	**Performance**	**Decor**	**Answers to questions**
Great	Problem revealed	Represented information	Wide used	Answers to questions

	fully. Conducted analysis problems with involving additional literature. conclusions justified.	systematized consistent and logically connected. Used more than 5 professional terms.	informational technologies. None errors in represented information.	full with ghost examples and/or explanations.
Fine	Problem revealed. Conducted analysis no problems attracting additional literature. Not all conclusions made and/or justified.	Represented information systematized and consistent. Used more than 2 professional terms.	Used informational technologies. No more than 2 errors in represented information	Answers to questions complete and/or partially full
Satisfactorily	Problem not disclosed fully. The conclusions are not made and/or conclusions are not justified.	Represented no information systematized and/or not consistent. Used 1-2 professional term.	Used informational technologies partially. 3-4 errors per represented information.	Only answers to elementary questions.
Unsatisfactory	The problem is not revealed. None conclusions.	Represented information logically not connected. Not used	Not used informational technologies. More than 4 errors	No answers to questions.

CHECK LIST

No.	Types of current events control	Number of points for 1 control event*	Qty events per semester	min - max quantity total points
1	***Current control:***			
	performance in class	3 - 5	14	42 - 70
2	***Frontier control:***			
	test control	3 - 5	2	6 - 10
	description of macropreparation	3 - 5	2	6 - 10
	answer on microslide	3 - 5	2	6 - 10
3	**The result of the current control for the semester:**			60 - 100
4	**Exam**			60 - 100

For credit in clinical pathological anatomy (9th semester, section 5)

No.	Types of current events control	Number of points for 1 control event*	Qty events per semester	min - max quantity total points
1	***Current control:***			
	interview	3 - 5	4	12 - 20
	test control		4	12 - 20

	description of macropreparation	3 – 5	4	12 – 20
	answer on microslide	3 – 5	4	12 – 20
	Registration of a medical certificate *death certificates*	6 – 10	1	6 – 10
	Decor *pathological diagnosis*	6 – 10	1	6 – 10
	Result of current control over semester:			60 – 100

Criteria for awarding points during ongoing monitoring

Characteristics of the student's response	Number of points
Excellent understanding of the subject, the student demonstrated comprehensive knowledge, excellent skills and proficiency	5
The student demonstrated a complete understanding of the subject, good knowledge, skills and proficiency	4
The student demonstrated understanding of the educational material at a minimum level of mastery	3
The student's answer does not meet the minimum requirements	2

Criteria for awarding points during the control lesson (maximum score 15)

1. Test control (task from text test questions and a task with 50 correct answers)

Number of correct answers	Sum of points
45 – 50	5
40 – 44	4
35 – 39	3
up to 34	2

2. Answers on macro and micro preparations (1 preparation each)

Characteristics of the student's response	Number of points
Excellent understanding of the subject, the student demonstrated comprehensive knowledge, excellent skills and proficiency	5
The student demonstrated a complete understanding of the subject, good knowledge, skills and proficiency	4
The student demonstrated understanding of the educational material at a minimum level of mastery	3
The student's answer does not meet the minimum requirements	2

Criteria for scoring the exam (maximum score - 100)

1. Test control (task from text test questions with 50 correct answers)

Number of correct answers	Sum of points
45 – 50	17 – 20
40 – 44	14 – 16
35 – 39	12 – 13
up to 34	up to 12

2. Response to macrodrug (1 drug)

Characteristics of the student's response	Quantity points
the student has systematic theoretical knowledge (knows the methodology for performing practical skills, describes a macropreparation, defines the process, names the causes, pathogenesis, indicates clinical manifestations, possible complications, outcomes), independently demonstrates the performance of practical skills without errors	21 – 25
the student has theoretical knowledge (knows the methodology for performing practical skills, describes a macropreparation, defines the process, names the causes, pathogenesis, indicates clinical manifestations, possible complications, outcomes), independently demonstrates the performance of practical skills, allowing for some inaccuracies (minor errors), which he independently detects and fixes it quickly	18 – 20

the student has satisfactory theoretical knowledge (knows the methodology for performing practical skills, describes a macropreparation, defines the process, names the causes, pathogenesis, indicates clinical manifestations, possible complications, outcomes), demonstrates the performance of practical skills, making some mistakes that can be corrected when corrected by the teacher	15 – 17
the student does not have a sufficient level of theoretical knowledge (does not know the methodology for performing practical skills, cannot describe a macropreparation, define the process, name the causes, pathogenesis, indicate clinical manifestations, possible complications, outcomes), and/or cannot independently demonstrate practical skills or perform them, making gross mistakes	up to 15

3. Interview (ticket with 3 questions)

Characteristics of the student's response	Quantity points
An answer is assessed that shows a solid knowledge of the basic processes of the subject area being studied and is distinguished by the depth and completeness of the topic; mastery of terminology; the ability to explain the essence of phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; fluency in monologue speech, logic and consistency of response.	25 – 30
The answer that is evaluated is one that reveals a solid knowledge of the basic processes of the subject area being studied and is distinguished by the depth and completeness of the topic; mastery of terminology; the ability to explain the essence of phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; fluency in monologue speech, logic and consistency of response. However, one or two inaccuracies in the answer are allowed.	21 – 24
The answer is assessed, indicating mainly knowledge of the processes of the subject area being studied, characterized by insufficient depth and completeness of the topic; knowledge of the basic issues of theory; poorly developed skills in analyzing phenomena and processes, insufficient ability to give reasoned answers and give examples; insufficient fluency in monologue speech, logic and consistency of response. There may be several errors in the content of the answer.	18 – 20
An answer is assessed that reveals ignorance of the processes of the subject area being studied, characterized by a shallow disclosure of the topic; ignorance of the basic issues of theory, unformed skills in analyzing phenomena and processes; inability to give reasoned answers, poor command of monologue speech, lack of logic and consistency. Serious errors in the content of the answer are allowed.	until 17

4. Answer to a situational problem (2 – 5 points)

5. Answer according to microslide (1 drug)

Characteristics of the student's response	Quantity points
the student has systematic theoretical knowledge (knows the methodology for performing practical skills, names the organ and process,	17 – 20

describes changes, makes a diagnosis, gives the correct definition), independently demonstrates the implementation of practical skills without errors	
student has theoretical knowledge (knows methodology performing practical skills, names the organ and process, describes changes, makes a diagnosis, gives the correct definition), independently demonstrates the performance of practical skills, allowing some inaccuracies (minor errors), which he independently detects and quickly corrects	14 – 16
the student has satisfactory theoretical knowledge (knows the methodology for performing practical skills, names the organ and process, describes changes, makes a diagnosis, gives the correct definition), demonstrates the implementation of practical skills, making some mistakes that can be corrected when corrected by the teacher	12 – 13
the student does not have a sufficient level of theoretical knowledge (does not know the methodology for performing practical skills, cannot name the organ and process, describe changes, make a diagnosis, give the correct definition), and/or cannot independently demonstrate practical skills or performs them, making gross mistakes	up to 12

*** Accrual of bonus points**: 5 bonus points can be added to the final amount by the teacher taking the exam (examiner)
in the case when a student, with an excellent answer, demonstrates a deep understanding of the subject and possession of additional information.

*** Accrual of bonus points for an essay (2 – 5), participation in scientific work (in a circle) up to 20 points to the total for a semester of no more than 100.**

CHECK LIST

for the second (commission) retake

No.	Differentiated test (test with grade)	Points
1	Text test control with a situational task	12-20
2	Description of the macropreparation	18-30
3	Interview (3 questions)	18-30
4	Answer on microslide	12-20
Total maximum number of points for the examination procedure:		100