

Документ подписан простой электронной подписью
 Информация о владельце:
 ФИО: Косенок Сергей Михайлович
 Должность: ректор
 Дата подписания: 18.07.2025 08:19:55
 Уникальный программный ключ:
 e3a68f3eaa1e62674b54f4998099d3d6bdfcf836

Assessment tools for midterm assessment

Human anatomy	
Code, discipline	31.05.01 General medicine
Profile	General medicine
Form of studying	Full-time
Department-developer	Morphology and physiology
Graduating Department	Internal diseases

TYPICAL TASKS FOR CONTROL WORK

TEST PAPER – ABSTRACT (1-2-3 SEMESTER)

List of referats – 1st semester:

1. Modern directions of anatomical science. Methods of anatomical research.
2. Representatives of the anatomy of the ancient period (Hippocrates, Galen). Anatomy of the Renaissance (Leonardo da Vinci, Andrei Vesalius).
3. Anatomists of the capitalist era. Russian anatomists.
4. Age-related features of the skeleton.
5. The vertebral column. Age features. Anomalies.
6. Functional anatomy of the chest. Forms. Movement, respiratory muscles.
7. The pelvis as a whole, the size of the pelvis. Differences between the male and female pelvis, age characteristics.
8. Age-related features of the skull.
9. General regularities of the structure of the support apparatus.
10. Biomechanics of movements.
11. Auxiliary apparatus of muscles.
12. Fascia and neck topography.
13. Chewing mechanism.

List of referats – 2nd semester:

1. Development of the digestive system. Malformations of development.
2. Functional anatomy of the liver. Its topography, development, blood supply and innervation.
3. Functional anatomy of the pancreas. Its topography, development, blood supply and innervation.
4. The mechanism of respiration.
5. Functional anatomy of the larynx. The mechanism of voice formation.
6. Functional anatomy of the respiratory system. Development. Malformations of development.
7. Functional anatomy of the urinary organs. Development. Malformations of development.
8. Development of reproductive organs, malformations.
9. Functional anatomy of the brain stem.
10. Functional anatomy of the cerebellum.
11. Functional anatomy of the intermediate brain.
12. Extrapyramidal system.
13. Morphological bases of dynamic localization of functions in the cerebral cortex.
14. Cerebrospinal fluid and its outflow pathways.
15. I. Pavlov's teaching on localization of functions in the cortex. Cyto- and myeloarchitectonics of the cortex.

List of referats – 3rd semester:

1. Functional anatomy of the heart (blood supply, innervation and work).
2. Malformations of the cardiovascular system.
3. Collateral circulation.
4. Fetal blood circulation.
5. Cavacaval, portocaval anastomoses and their significance in pathology.
6. General anatomy and physiology of the lymphatic system. The structural and functional unit of the lymphatic vessel is the lymphangion. Factors providing lymph flow.
7. Zakharyin-Ged zones and their connection with internal organs and spinal cord segments.
8. Features of vegetative innervation of individual internal organs.
9. Sense organs. The structure of the eyeball. Visual analyzer. Auxiliary apparatus of the eye.
10. Organs of smell and taste. Analyzers.
11. Functional anatomy of the hearing organ. The structure of the outer and middle ear. The inner ear. Auditory analyzer.
12. Functional anatomy of the endocrine glands.
13. Neurogenic group of endocrine glands: structure, topography, function.
14. Mesodermal and endodermal group of endocrine glands: structure, topography, function.
15. Branchiogenic group of endocrine glands: structure, topography, function.

TYPICAL TASKS FOR CREDIT (1st semester)

The task on the credit contains 3 theoretical questions and a list of practical skills.

The task for the indicators of the evaluation of the descriptor "Knows"	Type of task
<p>Formulate detailed answers to the following theoretical questions:</p> <ol style="list-style-type: none"> 1. Age-related features of the skeleton. 2. The chemical composition of the bone. 3. Bone as an organ. The structural and functional unit of the bone. Compact and spongy bone substance. 4. Types of ossification. 5. Classification of bones. 6. Vertebra. 7. Features of the cervical vertebrae. 8. Features of the thoracic vertebrae. 9. Features of the lumbar vertebrae. 10. The sacrum. 11. Coccygeal vertebrae. 12. Sternum. Ribs. Collarbone. 13. The shoulder blade. 14. Humerus. 15. The radius. 16. Bones of the hand. 17. The femur. 18. Pelvic bone, pelvis as a whole. 19. The tibia. Fibula. 20. Foot bones. 21. Types of bone connection. 22. The main and auxiliary elements of joints. 23. Classification of joints by the number of articular surfaces. 24. Classification of joints according to the shape of articular surfaces and axes of movement. 25. Occipital joint. 26. Types of connection in the vertebral column. 27. Connecting the bones of the upper limb girdle. 28. The connection of the ribs with the sternum and vertebrae. 	<p style="text-align: center;">theoretical</p>

29. Chest as a whole.
30. Shoulder joint.
31. Elbow joint.
32. Wrist joint.
33. Joints of the hand.
34. The connection of the pelvic bones.
35. Hip joint.
36. Knee joint.
37. Connecting the bones of the lower leg.
38. The ankle joint.
39. The connection of the bones of the foot.
40. Shopar's joint. Lisfrank joint.
41. Arches of the foot.
42. Development of the skull bones.
43. Age-related features of the skull.
44. The skull of a newborn.
45. Sexual differences of the skull.
46. The frontal bone.
47. Parietal bone.
48. Occipital bone.
49. The main bone.
50. Temporal bone.
51. Channels of the temporal bone.
52. The latticed bone.
53. Lacrimal bone, nasal bone, nasal coulter.
54. Palatine bone.
55. Lower nasal shell, upper jaw.
56. Lower jaw.
57. Anterior cranial fossa
58. Medial cranial fossa
59. Posterior cranial fossa
60. Eye socket.
61. Nasal cavity. The paranasal sinuses of the nose.
62. Temporal fossa. The suspensory fossa. Wing-palatine fossa.
63. The connection of the bones of the skull.
64. Temporomandibular joint.
65. Anterior section of the external base of the skull.
66. The middle section of the external base of the skull.
67. the 3rd part of the external base of the skull.
68. Classification of muscles.
69. Auxiliary apparatus of muscles.
70. Facial muscles.
71. Chewing muscles.
72. Neck muscles.
73. Fascia of the neck.
74. Neck topography.
75. Upper limb girdle muscles.
76. Shoulder muscles, topography.
77. Muscles acting on the shoulder joint.
78. Muscles acting on the elbow joint.
79. Muscles of the anterior surface of the forearm, topography.
80. Muscles of the posterior surface of the forearm.
81. The muscles of the hand.
82. The axillary cavity.
83. Chest muscles, fascia.
84. The diaphragm.

85. Respiratory muscles. 86. Abdominal muscles, the vagina of the rectus abdominis. 87. Back muscles. 88. Inguinal canal. 89. Lower limb girdle muscles. 90. Thigh muscles. 91. Muscles acting on the hip joint. 92. Femoral canal. 93. Femoral-popliteal canal. 94. Popliteal fossa. 95. Lower leg muscles. 96. The shin-popliteal canal. 97. Muscles acting on the knee joint. 98. Foot muscles.	
Task for the evaluation indicator of the descriptor "Knows", "Owns"	Type of task
1. Determine whether the ribs, collarbone, shoulder blade belong to the right or left side of the skeleton. 2. Show the front and rear ends of the ribs. 3. Show the upper and lower edges of the edges. 4. Determine whether the humerus, ulna, radius and hand belong to the right or left side of the skeleton. 5. Show the proximal and distal ends of the humerus, ulna, radius. 6. Determine whether the femoral, pelvic, tibial, fibular and foot bones belong to the right or left side of the skeleton. 7. Show the proximal and distal ends of the femur, tibia, fibula. 8. Show the movements in the joints in the form of axes drawn through the joints. 9. Show movements in the joints of the upper limb 10. Show movements in the joints of the lower limb 11. Be able to find and cut the walls of the nasal cavity, eye sockets 12. Be able to show with what and through what the nasal cavity, the eye socket is communicated. 13. Show movements in the temporomandibular joint. 14. Dissect: muscles. 15. Palpate the main bone formations for the purpose of their topographic and anatomical characteristics. 16. Demonstrate and correctly name the movements carried out in the main joints of the human body. 17. Find and palpate the main muscle landmarks of the human body. 18. The technique of anatomical examination.	practical

TYPICAL TASKS FOR CREDIT (2nd semester)

The task on the credit contains 2 theoretical questions and a list of practical skills.

The task for the indicators of the evaluation of the descriptor "Knows"	Type of task
Formulate detailed answers to the following theoretical questions: 1. Development of the digestive system. Malformations of the maxillofacial region and digestive tract. 2. The oral cavity. 3. Language, structure. 4. Salivary glands: structure, topography. 5. The structure. Development and change of teeth. 6. The structure of the soft palate. 7. Pharynx: structure, topography. 8. Pirogov-Waldeyer lymphoepithelial ring.	theoretical

9. Esophagus: structure, topography.
10. Stomach: structure, topography.
11. Small intestine: structure, topography.
12. Colon: structure and topography.
13. Caecum and appendix: structure, variants, position. Importance in surgery.
14. Rectum: structure, topography.
15. Liver: structure, topography.
16. Gallbladder and extrahepatic bile ducts.
17. Pancreas: structure, topography.
18. Spleen: structure, topography.
19. Derivatives of the peritoneum: ligaments, omentums, mesentery. The ratio of organs to the peritoneum.
20. Topography of the peritoneum of the upper floor of the abdominal cavity.
21. Topography of the peritoneum of the middle floor of the abdominal cavity.
22. Topography of the peritoneum of the pelvis and the anterior wall of the abdomen.
23. The outer nose. The nasal cavity.
24. The walls of the nasal cavity. The paranasal sinuses of the nose.
25. Nasopharynx.
26. Larynx, laryngeal cartilage.
27. Connection of laryngeal cartilage.
28. Laryngeal cavity. The vocal fold.
29. Laryngeal muscles.
30. Mediastinum, departments, organs.
31. Trachea, main bronchi.
32. Lungs, structure, boundaries.
33. Segmental structure of the lungs.
34. Bronchial tree.
35. Pleura, borders, pleural sinuses.
36. The structural and functional unit of the lung.
37. The external structure of the kidney. The fixing device.
38. The structure of the kidney on the incision. Nephron.
39. Fornix apparatus
40. Urinary tract: structure, their topography.
41. The bladder: topography, structure.
42. Male and female urethra.
43. The main stages of the ontogenesis of the genitourinary system.
- Abnormalities of the development of the organs of the MPS.
44. Uterus: structure, topography.
45. Ovaries and fallopian tubes: topography, structure.
46. Testicle and appendage: structure, testicular membranes, spermatic cord, its constituent parts.
47. Prostate gland, seminal vesicles and bulbourethral glands: structure and topography.
48. External male genitalia.
49. Vagina and external female genitalia: structure, topography.
50. Perineum, genitourinary and pelvic diaphragms.
51. The concept of a neuron. Classification of neurons and receptors.
52. The development of the central nervous system.
53. Brain bladders and their derivatives.
54. The three-neural reflex arc.
55. The external structure of the spinal cord.
56. The internal structure of the spinal cord.
57. Segmental structure of the spinal cord.
58. Anatomy of the base of the brain.
59. The medulla oblongata. External and internal structure.

<p>60. The beginning of the medial loop.</p> <p>61. The bridge of the brain. External and internal structure.</p> <p>62. Cerebellum - external, internal structure, functions.</p> <p>63. The lateral loop.</p> <p>64. The legs of the cerebellum, conducting the pathways of the legs.</p> <p>65. IV ventricle.</p> <p>66. Projection of nuclei to the bottom of the IV ventricle.</p> <p>67. The middle brain.</p> <p>68. Intermediate brain, III ventricle.</p> <p>69. The isthmus of the rhomboid brain.</p> <p>70. Furrows and convolutions of the dorsolateral surface of the cerebral hemispheres.</p> <p>71. Furrows and convolutions of the medial surface of the cerebral hemispheres.</p> <p>72. Furrows and convolutions of the basal surface of the cerebral hemispheres.</p> <p>73. The location of cortical centers in the hemispheres of the brain.</p> <p>74. Gray and white matter of the cerebral hemispheres.</p> <p>75. The basal nuclei of the cerebral hemispheres.</p> <p>76. The Vault. The olfactory brain.</p> <p>77. I. Pavlov's teaching on localization of functions in the cortex. Cyto- and myeloarchitectonics of the cortex.</p> <p>78. Lateral ventricles.</p> <p>79. The membranes of the brain.</p> <p>80. Sinuses of the dura mater.</p> <p>81. The place of formation of cerebrospinal fluid and the ways of its outflow.</p> <p>82. Afferent department of the motor analyzer.</p> <p>83. Efferent department of the motor analyzer (cortical-nuclear pathway).</p> <p>84. Conductive pathways of the skin analyzer.</p> <p>85. Conducting pathways of the auditory analyzer.</p> <p>86. Conducting pathways of the visual analyzer.</p> <p>87. Olfactory brain, structure and function.</p> <p>88. Cortical–bridge-cerebellar pathways.</p> <p>89. The cerebrospinal tract.</p> <p>90. The extrapyramidal system.</p>	
<p>Task for the evaluation indicator of the descriptor "Knows", "Owns"</p>	<p>Type of task</p>
<p>1. Determine the main anthropometric points and lines to clarify the constitutional features of the body structure, determine the boundaries of organs.</p> <p>2. Master the methods of determining the boundaries of the lung.</p> <p>3. Genitourinary system</p> <p>4. Be able to find and show the structures and membranes of the spinal cord on the preparations, slides of the anatomical table "Anatome".</p> <p>5. Be able to find and show on the preparations, slides of the anatomical table "Anatome" the structures of the base of the brain, the exit point of 12 pairs of cranial nerves from the brain and from the cranial cavity.</p> <p>6. Be able to find and show on the preparations, slides of the anatomical table "Anatome" the structures of the medulla oblongata, cerebral bridge, cerebellum.</p> <p>7. Be able to find and show the structures of the midbrain, the fourth ventricle on the preparations, slides of the anatomical table "Anatome".</p> <p>8. Be able to find and show on the preparations, slides of the anatomical table "Anatome" the structures of the intermediate brain, the third ventricle of its wall.</p> <p>9. Be able to find and show on the preparations, slides of the anatomical table "Anatome" the furrows and convolutions of the dorsolateral and basal surfaces of the cerebral hemispheres.</p>	<p>practical</p>

<p>10. Be able to find and show on the preparations, slides of the anatomical table "Anatontage" furrows and convolutions of the medial surface of the hemispheres, lateral ventricles.</p> <p>11. Be able to find and show the basal nodes, the white matter of the cerebral hemispheres, the inner capsule, the arch, the olfactory brain on the preparations, slides of the anatomical table "Anatontage".</p> <p>12. Be able to find and show on the preparations, slides of the anatomical table "Anatontage" the membranes of the brain, the intervertebral spaces, the sinuses of the dura mater, the place of formation of cerebrospinal fluid and the ways of its outflow.</p> <p>13. Be able to find and show afferent pathways on the preparations, slides of the anatomical table "Anatontage".</p> <p>14. Be able to find and show the efferent pathways of the extrapyramidal system on the preparations, slides of the anatomical table "Anatontage".</p>	
--	--

TYPICAL TASKS FOR EXAM (3rd semester)

The exam tasks contain four theoretical questions and a list of practical skills.

The task for the indicators of the evaluation of the descriptor "Knows"	Type of task
<p>Formulate detailed answers to the following theoretical questions:</p> <ol style="list-style-type: none"> 1. The subject and content of anatomy. Its place is among the biological disciplines. The importance of anatomy for the study of clinical disciplines and for medical practice. 2. Modern directions of anatomical science. Methods of anatomical research. 3. The concept of the integrity of the organism. The interrelation of parts of the body, the unity of structure and function. 4. Individual variability of the organism. The concept of the variants of the norm in the structure and the organism as a whole. Body Types 5. Axes and planes in anatomy. Lines conventionally drawn on the surface of the body, their meaning to indicate the projection of organs on the skin (examples). 6. Representatives of the anatomy of the ancient period (Hippocrates, Galen). Anatomy of the Renaissance (Leonardo da Vinci, Andrei Vesalius). 7. The first Russian anatomists " of the XVII century (A.P. Protasov, M.I.Shein, O.E. Mukhin, N.M. Maksimovich - Ambodik). 8. Pirogov, P.F. Lestgaft: the significance of their works on anatomy and practical medicine. 9. Russian anatomy of the first half of the twentieth century (V.P. Vorobyov, V.N. Tonkov, V.N. Shevkunenko, G.M. Iosifov, D.A. Zhdanov), their contribution to the development of anatomical science. 10. Bone as an organ of bone development and growth. The method of ossification. 11. Bone structure. Regularities of the structure of compact and spongy matter. Periosteum. Bone marrow. Classification of bones. 12. The structure of the vertebra. The vertebral column, the structure of the vertebrae, the connection between themselves and the skull, bends, movements. 13. The chest as a whole: bones, joints, form of movement. 14. Bones of the shoulder girdle and shoulder. 15. Bones of the forearm and hand. 16. Pelvic and femoral bones. 17. Bones of the lower leg and foot. 18. The connection of the pelvic bones. The pelvis as a whole. Sexual differences. The size of the female pelvis. 19. Occipital, frontal, parietal bones: parts, openings and their meaning. 20. The main lattice bone of the skull: parts, holes and their meaning. 21. Bones of the facial skull: structure, holes and their significance. 	- theoretical

22. Temporal bone, its parts, channels and their meaning.
23. Topography of the external base of the skull, holes and their significance.
24. Topography of the inner base of the skull: holes and their significance.
25. Nasal cavity: walls, message and their meaning.
26. Bone walls of the eye socket: holes, slits and their significance.
27. Krylonebnaya, podvisochneya and temporal fossa: walls, messages and their meaning.
28. Features of the structure of the skull in a newborn.
29. Age, sex, individual features of the skull. The connection of the bones of the skull.
30. Types of bone connection. Signs of joints. Classification of joints.
31. Temporomandibular joint: building. Muscles acting on it, their blood supply and innervation.
32. Shoulder joint: the structure, the muscles acting on it, their blood supply and innervation.
33. Elbow joint: the structure, the muscles acting on it, their blood supply and innervation.
34. Wrist joint: the structure, the muscles acting on it, their blood supply and innervation.
35. Hip joint: the structure, the muscles acting on it, their blood supply and innervation.
36. Knee joint: the structure, the muscles acting on it, their blood supply and innervation.
37. Ankle joint: the structure, the muscles acting on it, their blood supply and innervation.
38. Joints of the foot. The foot as a whole: the structure, the muscles acting on the joints of the foot, their blood supply and innervation.
39. General anatomy of muscles. Muscles as an organ. Auxiliary apparatus of muscles. Classification of skeletal muscles.
40. Back muscles, their function of blood supply and innervation.
41. Chest muscles, diaphragm, structure, function of their blood supply and innervation.
42. Abdominal muscles, their blood supply and innervation. The vagina of the rectus abdominis muscle. White belly line.
43. Inguinal canal: walls, outer and inner rings, significance in pathology.
44. Neck muscles: topography and fascia of the neck.
45. Facial muscles. Chewing muscles.
46. Topography of the axillary fossa, cavity.
47. The muscles of the hand. Bone - fibrous channels and synovial vaginas of the hand.
48. Topography of the upper limb.
49. The muscles of the hip region: their function, blood supply and innervation. Holes, channels in the walls of the pelvis and their meaning.
50. Thigh muscles, their blood supply and innervation. Fascia and hip topography. Femoral canal. Significance in surgery.
51. Lower leg muscles, their blood supply and innervation. Topography of the lower leg.
52. Foot muscles, their blood supply and innervation. Fascia and synovial sheaths of the tendons of the muscles of the lower extremities.
53. Development of the digestive system. Anomalies in the development of the maxillofacial region and the digestive tract.
54. The oral cavity. Language, structure, function, blood supply and innervation.
55. Salivary glands: structure, topography, their blood supply and innervation.
56. Structure. Development and change of teeth, their blood supply and innervation.
57. The structure of the soft palate.

58. Pharynx: structure, topography, blood supply and innervation.
59. Esophagus: structure, topography, blood supply and innervation.
60. Stomach: structure, topography, blood supply and innervation.
61. Small intestine: structure, topography, blood supply and innervation.
62. Colon: structure. The cecum and the appendix: structure, variants, position. Significance in surgery. Rectum: structure, topography. Blood supply and innervation of the large intestine.
63. Liver: structure, topography. Gallbladder and extrahepatic bile ducts: structure, blood supply and innervation.
64. Pancreas and spleen: structure, topography, blood supply and innervation.
65. Derivative of the peritoneum: ligaments, omentums, mesentery. The ratio of organs to the peritoneum.
66. Topography of the peritoneum of the upper floor of the abdominal cavity.
67. Topography of the peritoneum of the middle floor of the abdominal cavity.
68. Topography of the pelvic peritoneum and anterior abdominal wall.
69. Kidneys: structure, topography. The structure of the kidney on the incision. Nephron.
70. Urinary tract: structure, their topography. Bladder: topography, structure, blood supply and innervation.
71. Male and female urethra.
72. The main stages of the ontogenesis of the genitourinary system. Anomalies of the development of the organs of the genitourinary system.
73. Uterus: structure, topography. Ovaries and fallopian tubes: topography, structure, blood supply and innervation.
74. Testicle and appendage: structure. The membranes of the testicle, the spermatic cord, its components, blood supply and innervation.
75. Prostate gland, seminal vesicles and bulbourethral glands: structure, topography, blood supply and innervation.
76. External male genitalia, blood supply and innervation.
77. Vagina and external female genitalia, blood supply and innervation.
78. Perineum, genitourinary and pelvic diaphragms.
79. External nose. Nasal cavity, blood supply and innervation.
80. Larynx: structure, topography, blood supply and innervation.
81. Trachea, bronchi. Structure, topography, blood supply and innervation.
82. Lungs. Development, structure, topography, blood supply and innervation.
83. Pleura: divisions, borders, pleural cavity, pleural sinuses, blood supply and innervation.
84. Mediastinum: its divisions, topography and contents.
85. Skeletotopy of the organs of the thoracic cavity (heart, lungs, pleural sacs).
86. Classification of the endocrine glands, their general characteristics.
87. Neurogenic group of endocrine glands (pituitary gland, epiphysis): structure, topography, function, blood supply and innervation.
88. Mesodermal group of endocrine glands (sex glands): structure, topography, function. Blood supply and innervation.
89. Endodermal group of endocrine glands (pancreas): structure, topography, function. Blood supply and innervation.
90. Branchiogenic group of endocrine glands (thyroid gland, parathyroid glands, thymus gland): structure, topography, function. Blood supply and innervation.
91. The nervous system, its departments, meaning in the body.
92. The concept of a neuron. Classification of neurons. Classification of receptors. Simple and complex reflex arcs.
93. Development of the spinal cord and brain. Brain bubbles and their derivatives.
94. Spinal cord: topography, structure. The membranes of the spinal cord.
95. Distribution of gray and white matter of the spinal cord. Functional value.
96. The medulla oblongata. External and internal structure, function.
97. Bridge. External and internal structure, function.

98. The cerebellum. External and internal structure, function.

99. IV ventricle: walls, with what and through what is communicated.

100. The midbrain: External and internal structure, function.

101. The intermediate brain, its parts, structure, function.

102. Functional anatomy of the brain stem. 103.

Furrows and convolutions of the upper lateral surface of the cerebral hemispheres.

Location of cortical centers.

104. Furrows and convolutions of the medial and basal surfaces of the cerebral hemispheres.

105. Pavlov I.P.'s teaching on localization of functions in the cortex. Cyto- and myeloarchitectonics of the cortex.

106. The distribution of gray and white matter on the sections of the hemispheres of the brain. The inner capsule.

107. Basal ganglia. Extrapyramidal nervous system.

108. Lateral ventricles: walls, with what and through what is communicated.

109. Olfactory brain: structure, function.

110. Anatomy of the median sagittal incision of the brain.

111. Anatomy of the base of the brain. The place where the cranial nerves exit from the brain or enter it.

112. The membranes of the brain (the sinuses of the dura mater, the intervertebral spaces) and the circulation of cerebrospinal fluid.

113. Ventricles of the brain and circulation of cerebrospinal fluid.

114. Conductive pathways of proprioceptive sensitivity.

115. Conductive pathways of skin sensitivity.

116. Pyramidal conducting paths.

117. The external structure and topography of the heart. The pericardial bag.

118. The structure of the heart wall: Blood supply and innervation. The conducting system of the heart.

119. Chambers of the heart. The valvular apparatus of the heart. Large and small circles of blood circulation. Harvey's research.

120. Fetal blood circulation. A change in the vascular system of the newborn.

121. General regularities of the structure and location of blood vessels.

122. The pathways of the indirect (collateral) blood flow. Microcirculatory bed: characteristics, regularities of its structure.

123. Aorta: departments, topography. Branches of the aortic arch. Branches of the thoracic aorta, their topography, the area of blood supply.

124. Common and external carotid arteries: topography, branches, blood supply area.

125. Maxillary artery: its divisions, topography, branches, area of blood supply.

126. Blood supply to the spinal cord and brain.

127. Subclavian artery: departments, branches, area of blood supply.

128. Axillary and brachial arteries: topography, divisions, branches and blood supply area.

129. Artery of the forearm and hand: topography, branches, area of blood supply.

130. Abdominal aorta: topography, branches, blood supply area.

131. Internal iliac artery: topography, branches, blood supply area.

132. External iliac and femoral arteries: topography, branches, blood supply area.

133. Popliteal artery. Arteries of the lower leg and foot: topography, branches, area of blood supply.

134. The system of the superior vena cava.

135. The internal jugular vein, its extracranial and intracranial tributaries.

136. Veins of the brain. Venous sinuses of the dura mater. Venous graduates and diploic veins.

137. The inferior vena cava system.

138. Portal vein. Cavocaval and portocaval anastomoses.

139. The principle of the structure of the lymphatic system (capillaries, vessels, trunks and ducts, their general characteristics). Pathways of lymph outflow from the body areas into the venous bed.
140. Lymphatic capillaries, vessels and nodes: structure, function. Factors providing lymph flow.
141. Thoracic duct. The right lymphatic duct, their formation, structure, topography, place of confluence with the venous bed.
142. Veins, lymph nodes and vessels of the upper and lower extremities
143. Veins, lymph nodes and vessels of the head and neck.
144. Lymph nodes and vessels of the thoracic and abdominal cavities.
145. Formation of spinal nerves. The posterior and anterior branches of the spinal nerves.
146. Cervical plexus: formation, topography, branches and area of innervation.
147. Brachial plexus: formation, topography, short branches and innervation area.
148. Ulnar nerve: topography, branches, area of innervation.
149. Median nerve: topography, branches, area of innervation.
150. Radial nerve: topography, branches, area of innervation.
151. Innervation of the skin of the upper limb.
152. Lumbar plexus: formation, topography, branches, area of innervation.
153. Femoral nerve: topography, branches, area of innervation.
154. Sacral plexus: formation, topography, short branches, area of innervation.
155. Sacral plexus: formation, topography, long branches, area of innervation.
156. Innervation of the skin of the lower limb.
157. Innervation of the trunk skin.
158. Innervation of the scalp and neck.
159. Innervation and blood supply to the walls of the abdominal cavity.
160. Innervation and blood supply of the walls of the chest cavity.
161. Principles of formation of cranial nerves. Projection of cranial nerve nuclei to the bottom of the rhomboid fossa.
162. Oculomotor, block, diverting nerves: nuclei, branches, topography, area of innervation.
163. Trigeminal nerve: nuclei, branches, topography, area of innervation.
164. Facial nerve: nuclei, branches, topography, area of innervation.
165. Lingopharyngeal nerve: nuclei, branches, topography, area of innervation.
166. Vagus nerve: nuclei, branches, topography, area of innervation.
167. Accessory, sublingual nerves: nuclei, branches, topography, area of innervation.
168. The autonomic nervous system. Morphological and functional features of the autonomic nervous system.
169. The parasympathetic part of the autonomic nervous system. Centers and peripheral formations.
170. The sympathetic part of the autonomic nervous system. Centers and peripheral formations.
171. Innervation of abdominal organs.
172. Innervation of the organs of the thoracic cavity.
173. Innervation of the pelvic organs.
174. The outer and middle ear: structure, blood supply, innervation.
175. The inner ear. Bony and membranous labyrinths.
176. The preverno-cochlear nerve. Conducting pathways and centers of the organ of hearing, balance.
177. Eyeball, structure, blood supply, innervation.
178. Auxiliary apparatus of the eyeball, structure, blood supply, innervation.
179. Conducting pathways and centers of the visual analyzer.
180. Conducting pathways and centers of the olfactory organ.
181. Conducting pathways centers of the organ of taste.

182. Anatomy of the skin and its derivatives. Mammary gland, topography, structure, blood supply, innervation.	
Task for the evaluation indicator of the descriptor "Knows", "Owns"	Type of task
<ol style="list-style-type: none"> 1. Use basic anatomical instruments (tweezers, scalpel, etc.) 2. Dissect: joints, muscles, vessels, nerves. 3. Palpate the main bone formations for the purpose of their topographic and anatomical characteristics. 4. Palpate the main superficially located arteries and find the place of their pressing against the bone formations. 5. Palpate the main groups of lymph nodes. 6. Demonstrate and correctly name the movements carried out in the main joints of the human body. 7. Find and palpate the main muscle landmarks of the human body. 8. Determine the main anthropometric points and lines to clarify the constitutional features of the body structure, determine the boundaries of organs. 9. Demonstrate and correctly name the movements carried out in the main joints of the human body. 10. Determine the main anthropometric points and lines to clarify the constitutional features of the body structure, determine the boundaries of organs. 11. Be able to find and show anatomical formations according to the theoretical question. 12. Master the technique of anatomical examination. 13. Possess methods of determining the boundaries of organs. 14 To master the technique of auscultation of the heart valves. 	- practical