

Osh State University

international medical faculty

Department of anatomy, histology and normal physiology.

# Workbook

by section

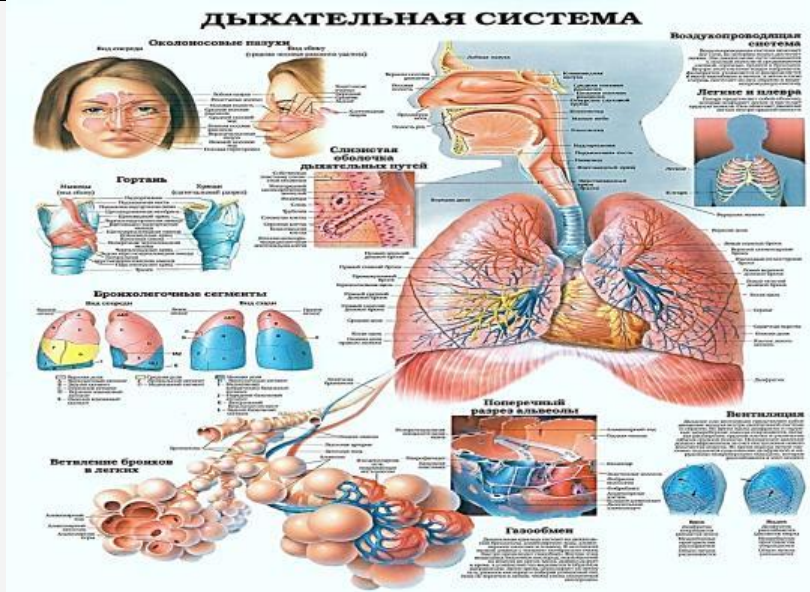
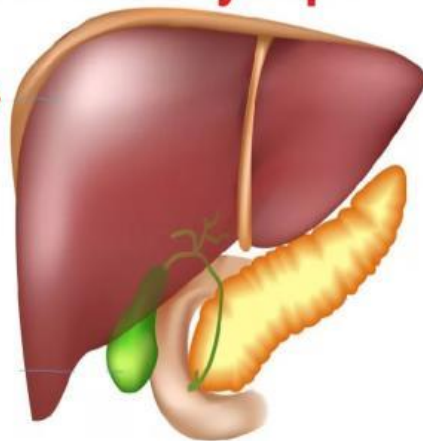
" Splanchnology "

Specialty: General Medicine

Discipline: Normal anatomy

Печень, поджелудочная  
железа, желчный пузырь

Анатомия,  
спланхнология



# Workbook

by section

"Splanchnology"

**Discipline: Normal anatomy**

*For 1st year students studying in specialty 560001 - general medicine*

Teacher's name \_\_\_\_\_

Student's name \_\_\_\_\_

Group \_\_\_\_\_

## **Workbook** mastering practical skills in Normal Anatomy (for 1st year students , specialty 560001 - general medicine)

The material was created in accordance with the requirements of the Kyrgyz State Educational Standard and the curriculum on human anatomy. The assignments are devoted to general issues of normal human anatomy and the anatomy of internal organs. This Workbook - as a methodological development - has the goal of helping students develop knowledge and skills in human anatomy, both the body as a whole and individual organs and systems, and use the acquired knowledge in the subsequent study of other fundamental and clinical disciplines, as well as in future professional activities . The notebook contains tasks for systematizing material on anatomy, which can be supplemented by the student using any available anatomy textbook of the appropriate level. The workbook is an integral part of the training module “Splanchnology”. Goal: methodological support for self-training of students to perform extracurricular independent work on the section “Digestive system”. Respiratory system." "Excretory system". "Reproductive system". The workbook includes various types of control and assessment material: control questions, tasks in test form, graphological structures, comparative tables, “silent” drawings, situational tasks. The assignments are completed in the workbook. Work on completing assignments contributes to the development of students’ research competence, as it requires independent search for the necessary information in textbooks and the Internet.

A grade of “**26-30**” is given if the student completed all tasks correctly.

A grade of “**21-25**” is given if the student has completed at least  $\frac{3}{4}$  of the task correctly.

A grade of “**16-20**” is given for work in which at least half of the tasks are completed correctly.

A grade of “**10-15**” is given for work in which more than half of the tasks are not completed.

A grade of “**0**” is given if the student has not completed more than one task.

### Recommendations for working with the textbook

1. Start working with the textbook after familiarizing yourself with the theoretical materials of the topic.
2. After studying the information, complete tasks that include anatomical drawings, tables, diagrams, situational tasks, graphological structures necessary for logical research and the development of professional competence.
3. If you have difficulty choosing an answer or if you answer incorrectly, read the appropriate section of the manual or textbook and find out what the error is.
4. To self-test the acquired knowledge, answer test questions, tasks in test form, fill out tables, diagrams, silent drawings, graphological structures. This promotes the development of visual and motor memory and a better understanding of the material. Tasks in the form of tables involve generalizing or comparing the material being studied, which develops analytical thinking. Tests help students test themselves during their independent solution.

Compiled by: Anatomy teacher - Asanbek kyzy K

Reviewers: Head. Departments: Assoc. Dzholdubaev S.J. , Keneshbaev B.K. Sakibaev K.Sh.

## **Topic No. 1 " Review buildings digestive system . Anatomy oral cavities : tongue , palate, teeth , gums . Salivary glands Pharynx and esophagus . "**

**LESSON PLAN:**

- Structure of the oral cavity
- Structure and muscles of the tongue
- Structure and formula of teeth
- Salivary glands and their classification
- **Anatomy of the pharynx**
- **Anatomy of the esophagus**
- **Lymphoid rings of Pirogov**

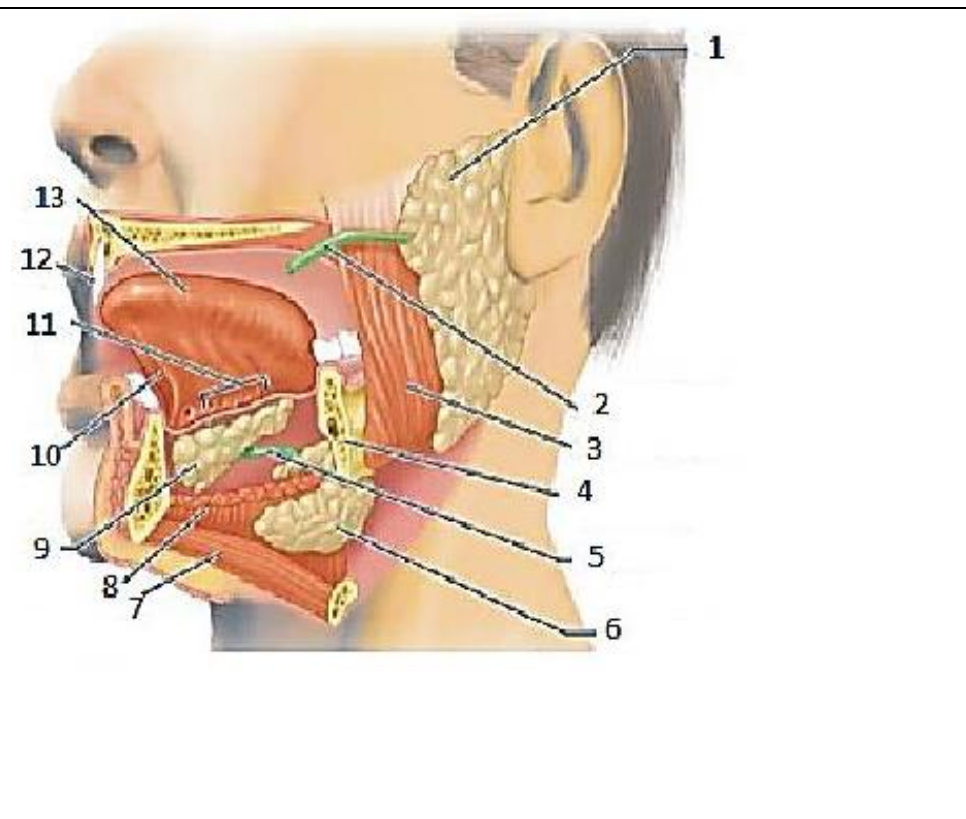
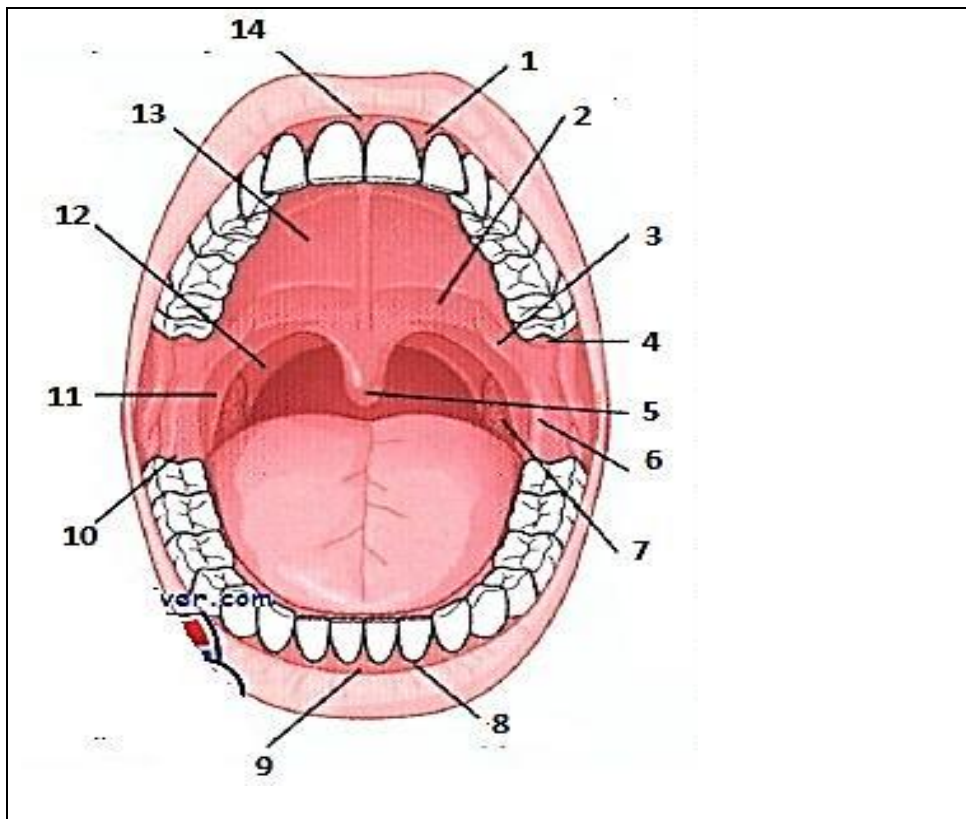
**Practical tasks and skills**

1. On the sitter, examine the frenulum of the lips and tongue, gums, pharynx, arches, palatine tonsils, and uvula.
2. Show on the sitter the projection of the location of the salivary glands.
3. Schematically draw the structure of the tooth, the formula of milk and permanent teeth.
4. Study radiographs of the jaws and teeth.
5. Determine skeletotopy and syntopy of the pharynx and esophagus.
6. Draw a schematic diagram of the stomach and indicate its sections.
7. Measure the length, width and thickness of the stomach.
8. Determine the projection of the location of the cardiac and pyloric parts of the stomach in relation to the skeleton and neighboring organs

**Control questions:**

- |   |  |
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| <ol style="list-style-type: none"> <li>1. Draw the digestive system?</li> <li>2. What is the digestive system?</li> <li>3. What parts are secreted in the digestive tract?</li> <li>4. What is the floor of the oral cavity?</li> <li>5. What is the inside of the oral cavity lined with?</li> <li>6. Name the muscles of the soft palate?</li> <li>7. Where are the palatine tonsils located?</li> <li>8. Name and show the papillae of the tongue?</li> <li>9. What groups are the muscles of the tongue divided into?</li> <li>10. Where are the minor salivary glands located?</li> <li>11. What's inside a tooth? Where do blood vessels and nerves penetrate into the tooth?</li> <li>12. What are the numbers and formula of baby teeth?</li> <li>13. What are the numbers and formula of permanent teeth?</li> <li>14. What surfaces are distinguished on the crown of a tooth?</li> </ol> | <ol style="list-style-type: none"> <li>15. What is a normal bite? What forms are there?</li> <li>16. What are skeletotopy and pharyngeal syntopy ?</li> <li>17. What muscles does the pharynx contain?</li> <li>18. What is special about pharyngeal constrictors ?</li> <li>19. What is the lymphoepithelial ring of the pharynx formed by?</li> <li>20. What openings open into the nasopharynx?</li> <li>21. How does the oral cavity communicate with the pharynx?</li> <li>22. How is the pharynx connected to the larynx?</li> <li>23. What is the role of the esophagus?</li> <li>24. What are holotopy , skeletopy and syntopy esophagus?</li> <li>25. What layers does the wall of the esophagus consist of?</li> <li>26. Show aortic and diaphragmatic narrowing of the esophagus on an x-ray?</li> <li>27. How many narrowings does the esophagus have and where are they located?</li> </ol> |
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**Write the structures indicated by numbers? Score: 5 points \_\_\_\_\_**

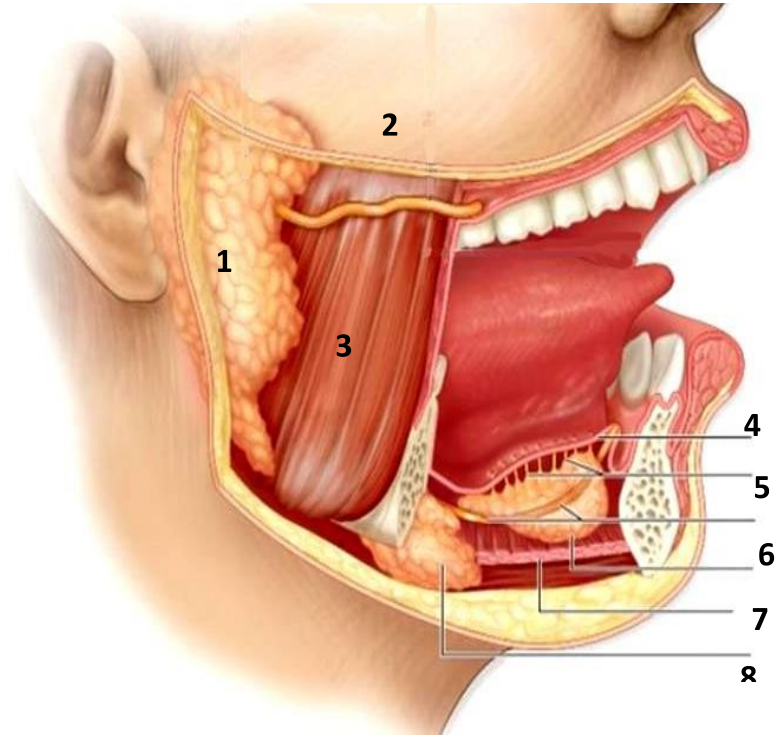
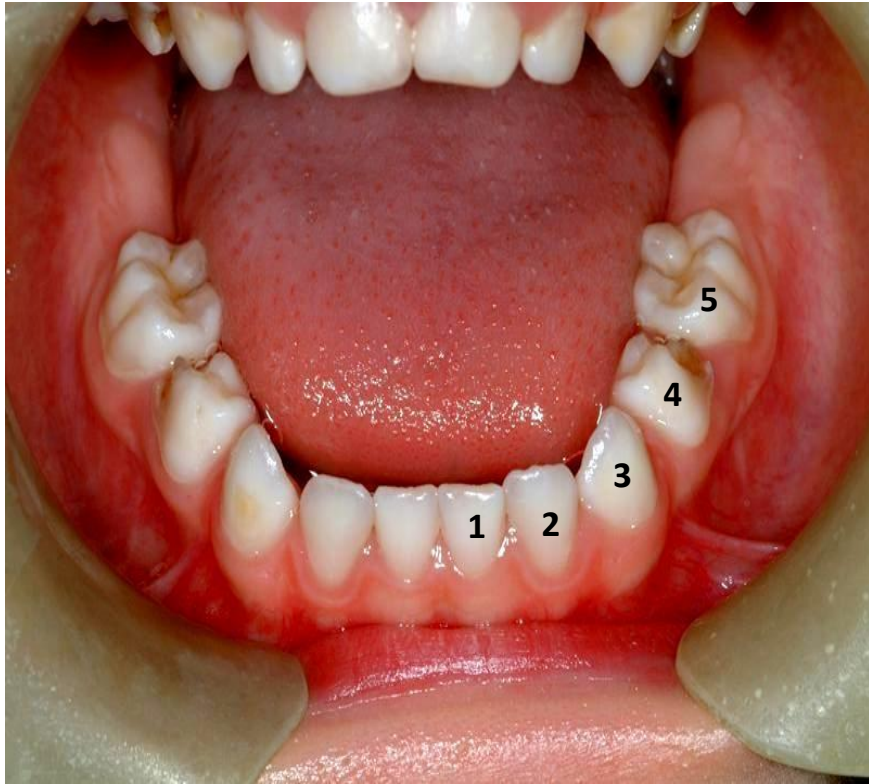


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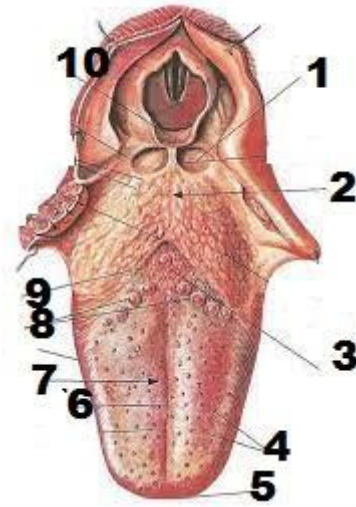
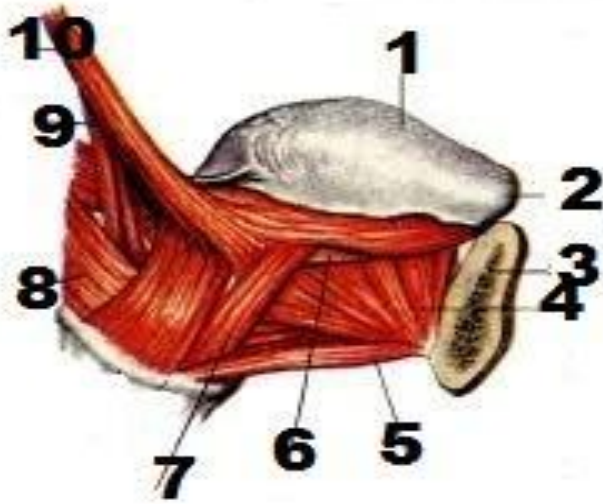
**Write the structures indicated by numbers. Score: 5 points \_\_\_\_\_**





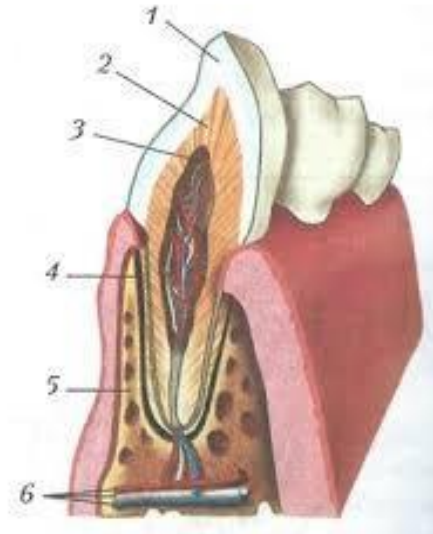
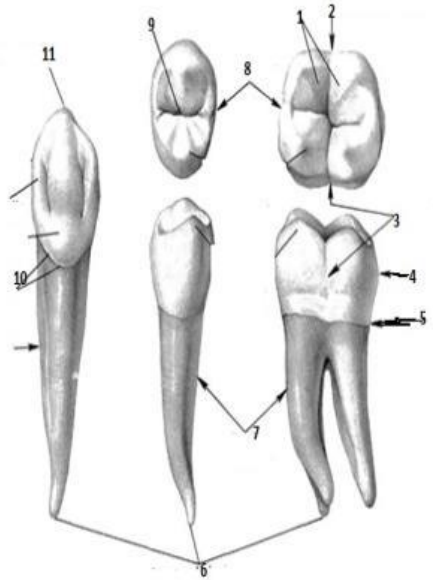
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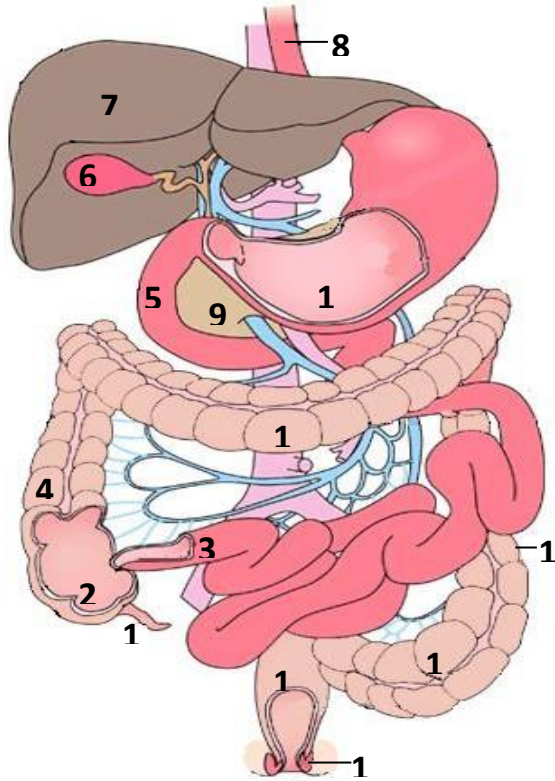
Write the structures indicated by numbers? Score: **5** points \_\_\_\_\_



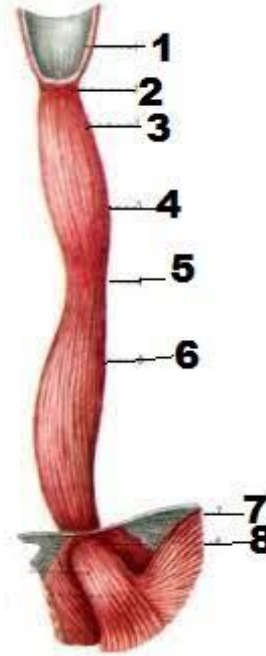
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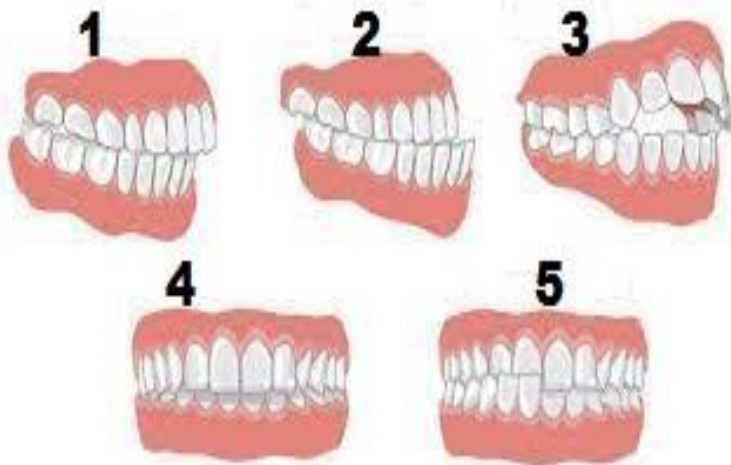
Write the structures indicated by numbers? Score: 10 points \_\_\_\_\_



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Total: 30 points \_\_\_\_\_

# Topic No. 2 Stomach. Large and small intestine .

Plan:

- 1.Small intestine
- 2.Large intestine
- 3.structure of the stomach
4. X-ray image

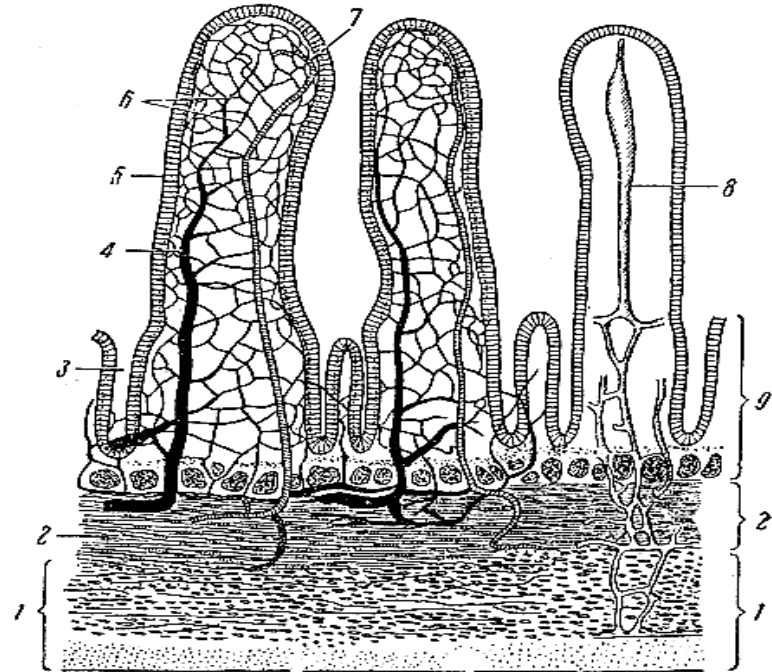
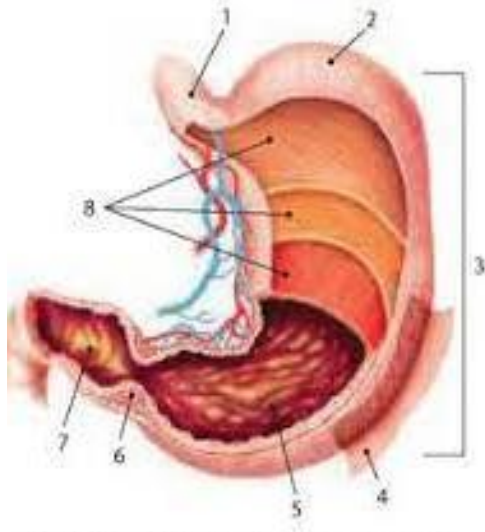
## Practical tasks and skills

- Dissect the wall of the small intestine.
- Prepare a Peyer's patch preparation.
- Study the relief of the mucosa of all parts of the small intestine.
- To study the skeletotopy of the duodenum.
- Dissect the wall of the colon.
- Determine skeletopy of the rectum.
- Using a complex of organs, determine the relationship of the large intestine with other organs.
- Examine radiographs of the small and large intestines.
- Fill out the control chart, silent diagrams and tables in Latin transcription.

### Control questions.

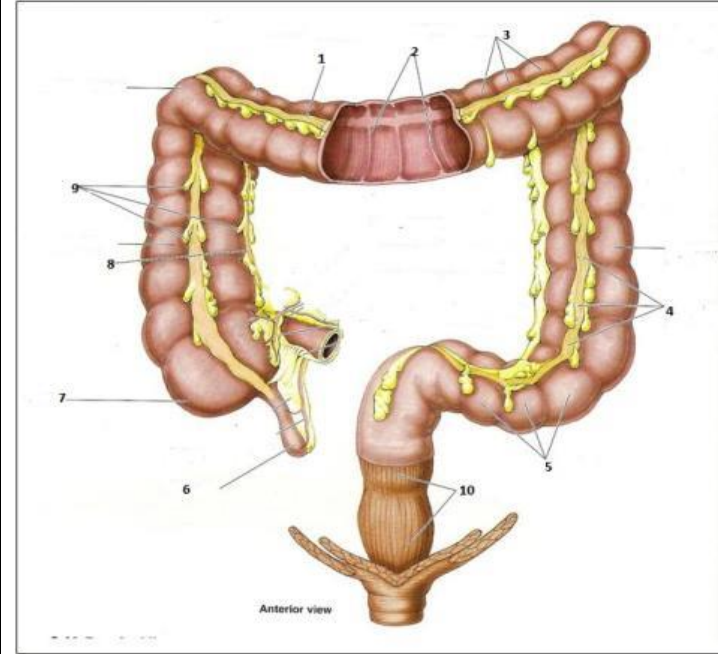
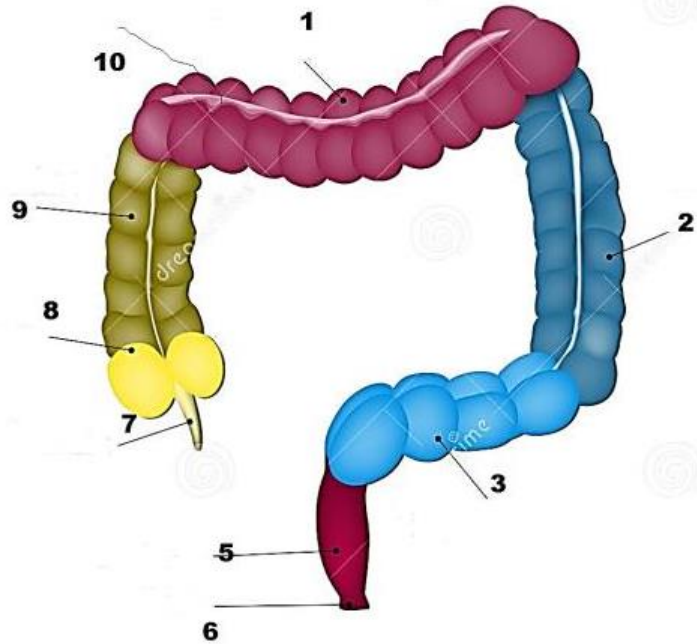
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| <ol style="list-style-type: none"><li>1. What are the options for the shape, structure and position of the stomach?</li><li>2. Show the lesser curvature of the stomach on the specimen?</li><li>3. What is gastric peristalsis?</li><li>4. What organs are in contact with the stomach?</li><li>5. Show the formations of the pyloric part of the stomach?</li><li>6. What walls, curvatures and parts are distinguished on the stomach?</li><li>7. What is the holotopy , syntopy and skeletopy of the stomach?</li><li>8. How is the stomach covered by peritoneum?</li><li>9. How are the walls of the stomach built?</li><br/><li>10. How does the small intestine develop?</li><li>11. Name the layers of the wall of the small intestine?</li><li>12. How is the muscle membrane built, what is its role?</li><li>13. Show the papilla of Vater, what ducts open here?</li><li>14. Show Peyer's patch and tell how it is prepared?</li></ol> | <ol style="list-style-type: none"><li>15. Should I show the duodenal bulb on the x-ray?</li><li>16. How is the villi built, what is its role?</li><li>17. How are the different parts of the small intestine related to the peritoneum?</li><li>18. What parts is the small intestine divided into?</li><li>19. What parts is the duodenum divided into?</li><li>20. What are holotopy , skeletopy and syntopy of the duodenum?</li><li>21. What is the x-ray picture of the duodenum?</li><li>22. What features does the mucous membrane of the small intestine have?</li><li>23. What role do the villi play in the mucous membrane of the small intestine?</li><li>24. How are lymphoid formations of the small intestine formed?</li><li>25. What are the features of the muscular layer of the small intestine?</li><li>26. What is the X-ray picture of the jejunum and ileum?</li><li>27. Tell us about the development of the colon? about anomalies and development options.</li><li>28. What options are there for the shapes and positions of the appendix?</li></ol> |
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Write the structures indicated by numbers? Score: **6** points \_\_\_\_\_



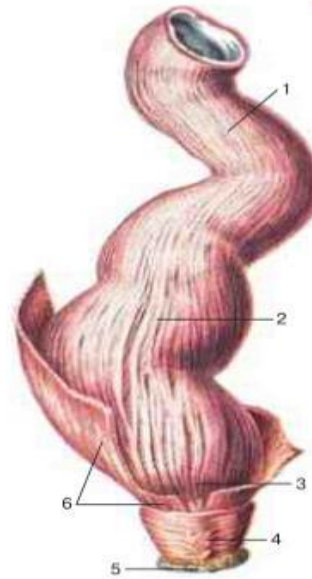
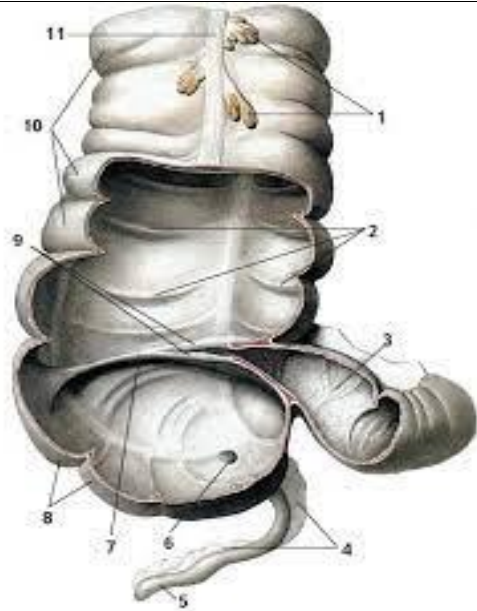
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Write the structures indicated by numbers? Score: **6** points \_\_\_\_\_



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Write the structures indicated by numbers? Score: **6** points \_\_\_\_\_



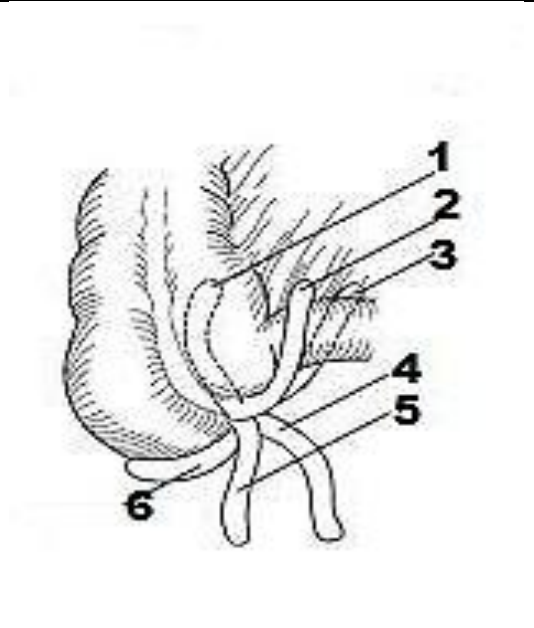
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List the distinctive features of the small and large intestine?		Score: <u>12</u> points _____	
Colon		Small intestine	
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**Schematically draw the boundaries of the abdomen?**

**What is the atypical location of the appendix?**


**Total: 30 points \_\_\_\_\_**

## Topic No. 3 Liver. Pancreas. Spleen. Peritoneum and its derivatives.

### Practical tasks and skills

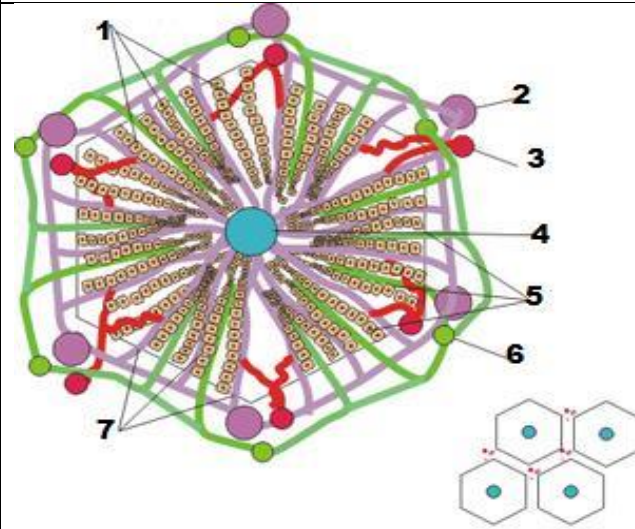
- Dissect the visceral surface of the liver - gates, grooves, ligaments.
- Dissect the gallbladder and bile ducts.
- Dissect the pancreatic duct and hilum of the spleen.
- Study the skeletal and syntopy of the liver, pancreas and spleen on a sitter.
- To study the formations of the peritoneum in a corpse and a complex of organs.
- Study the skeletotopy of the mesenteric root.
- Make a diagram of the course of the peritoneum and its formations.
- Schematically draw the relationship of the peritoneum to the umbilical ring, inguinal and femoral canals.

### Control questions:

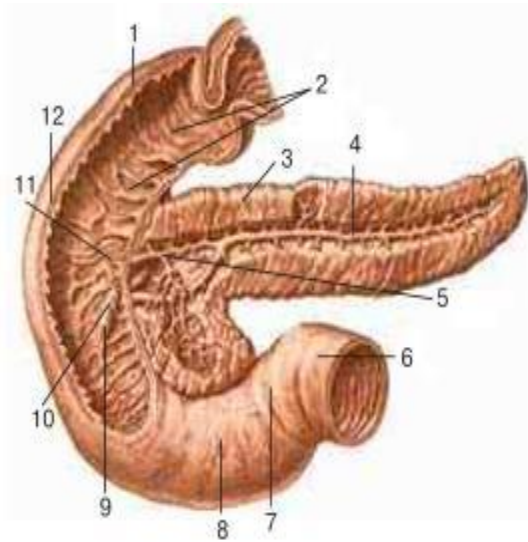
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| <ol style="list-style-type: none"><li>1. How do the liver and pancreas develop in ontogeny and phylogenesis?</li><li>2. What is the function of the liver, pancreas and spleen?</li><li>3. Show the groove of the inferior vena cava on the preparation?</li><li>4. What is contained in the hepatoduodenal ligament?</li><li>5. Show the ligaments of the diaphragmatic surface of the liver?</li><li>6. What elements make up the fixing apparatus of the liver?</li><li>7. Show the lower border of the liver on the sitter?</li><li>8. What is located at the porta hepatis?</li><li>9. What are the features of the blood supply to the liver?</li><li>10. How do the branches of the hepatic artery and portal vein branch?</li><li>11. What is the liver miraculous network?</li><li>12. What is the role of the gallbladder?</li><li>13. What is the structure of the pancreas?</li><li>14. The role of the islet apparatus of the gland?</li><li>15. How does the pancreatic duct go and where does it open?</li><li>16. What is the role of the spleen?</li><li>17. Tell us about the internal structure of the spleen?</li><li>18. What is the meaning of the peritoneum?</li></ol> | <ol style="list-style-type: none"><li>19. What is the peritoneal cavity?</li><li>20. Show stuffing box holes?</li><li>21. What is the topography of the peritoneum in the posterior abdominal wall?</li><li>22. What is the course of the peritoneum in the pelvis?</li><li>23. Show the projection of the mesentery root on the skeleton?</li><li>24. Name and show the folds and pits on the anterior abdominal wall?</li><li>25. How are the peritoneal ligaments divided according to their structure?</li><li>26. What are the peritoneal ligaments called?</li><li>27. What groups are the abdominal organs divided into in relation to the peritoneum covering them?</li><li>28. What organs are located intraperitoneally ?</li><li>29. What organs are located extraperitoneally ?</li><li>30. What organs of the digestive system are located mesoperitoneally ?</li><li>31. What floors is the abdominal cavity divided into?</li><li>32. What organs are located in the upper and middle floors?</li><li>33. What organs are located in the pelvic cavity?</li><li>34. What depressions are located in the area of transition of the duodenum to the jejunum?</li><li>35. What anomalies of peritoneal development do you know?</li></ol> |
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Write the structures indicated by numbers?

Schematically draw the liver segments? Score: **6** points



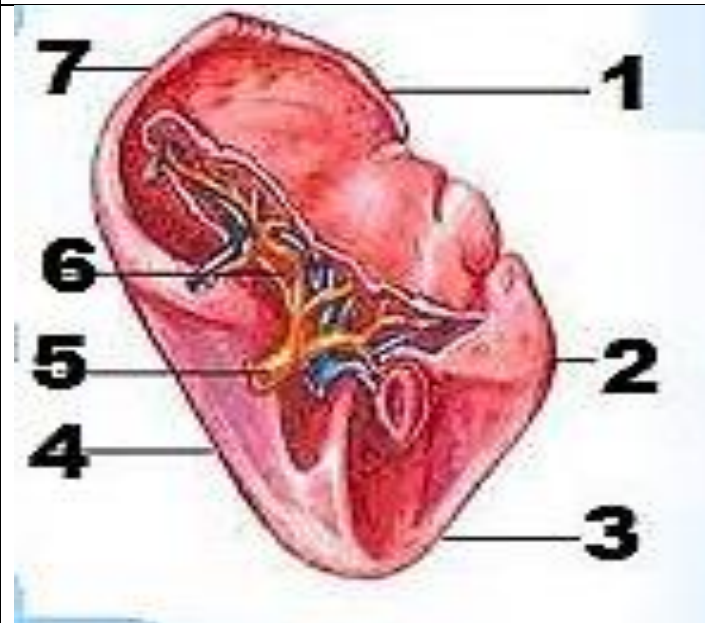
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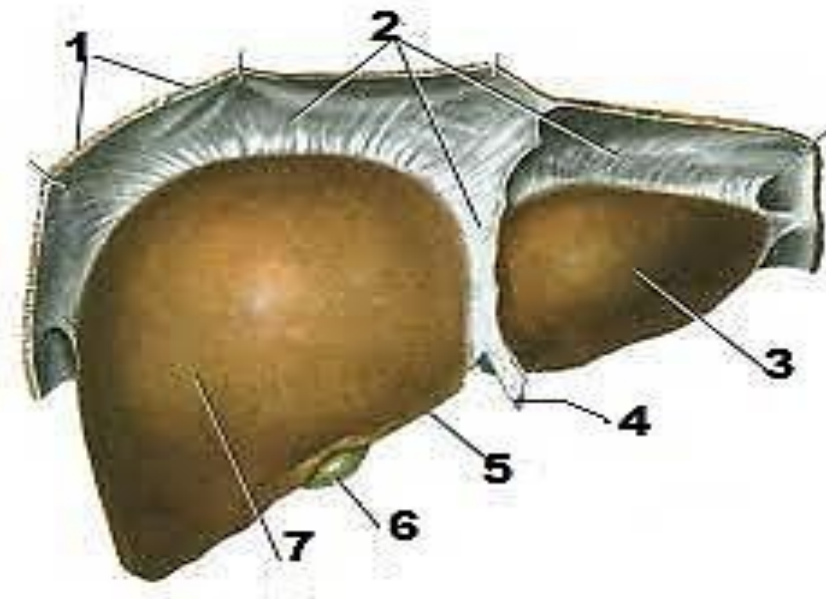
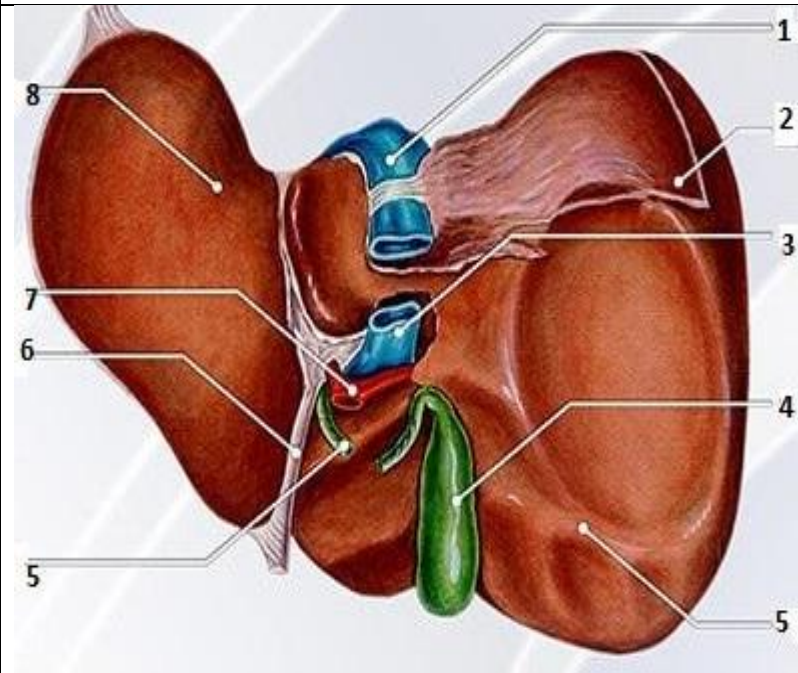
Score: 4 points



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Write the structures indicated by numbers?

Score: 7 points \_\_\_\_\_



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Choose one correct answer?	Score: <u>5</u> points
<p><b>1) The peritoneum is:</b></p> <ul style="list-style-type: none"> <li>• mucous membrane;</li> <li>• submucosa;</li> <li>• muscle membrane;</li> <li>• <b>serous membrane;</b></li> </ul> <p><b>1) The lesser omentum is derived from:</b></p> <ul style="list-style-type: none"> <li>• <b>ventral primary mesentery of the stomach;</b></li> <li>• dorsal primary mesentery of the stomach;</li> <li>• ventral secondary mesentery of the stomach;</li> <li>• dorsal secondary mesentery of the stomach;</li> </ul> <p><b>2) The falciform ligament of the liver is derived from:</b></p> <ul style="list-style-type: none"> <li>• <b>ventral primary mesentery of the stomach;</b></li> <li>• dorsal primary mesentery of the stomach;</li> <li>• ventral secondary mesentery of the stomach;</li> <li>• dorsal secondary mesentery of the stomach;</li> </ul> <p><b>3) The hepatic bursa contains:</b></p> <ul style="list-style-type: none"> <li>• stomach;</li> <li>• duodenum;</li> <li>• <b>right lobe of the liver and gallbladder;</b></li> <li>• the left lobe of the liver and spleen;</li> </ul> <p><b>5) Organs located mesoperitoneally :</b></p> <ul style="list-style-type: none"> <li>• stomach, spleen;</li> <li>• <b>ascending and descending colons;</b></li> <li>• pancreas;</li> <li>• kidneys, adrenal glands;</li> </ul>	<p><b>6) Parts of the pancreas:</b></p> <ul style="list-style-type: none"> <li>• <b>head, body, tail ;</b></li> <li>• head, neck, body, tail;</li> <li>• head, bottom, body, tail;</li> <li>• head, tail, bottom, body,;</li> </ul> <p><b>7) The pancreatic duct opens into:</b></p> <ul style="list-style-type: none"> <li>• upper part of the duodenum;</li> <li>• <b>descending part of the duodenum;</b></li> <li>• horizontal part of the duodenum;</li> <li>• ascending part of the duodenum;</li> </ul> <p><b>8) The liver is located:</b></p> <ul style="list-style-type: none"> <li>• <b>in the left hypochondrium;</b></li> <li>• in the umbilical region;</li> <li>• in the epigastric region;</li> <li>• in the right lateral region of the abdomen;</li> </ul> <p><b>9) . On the visceral surface near the lower edge of the liver there is:</b></p> <ul style="list-style-type: none"> <li>• gastric depression;</li> <li>• esophageal depression;</li> <li>• renal depression;</li> <li>• <b>colonic depression;</b></li> </ul> <p><b>10 . The spleen is located:</b></p> <ul style="list-style-type: none"> <li>• at the level of the X-XII ribs in the left hypochondrium;</li> <li>• at the level of the X-XII ribs in the right hypochondrium;</li> <li>• at the level of the VIII-X ribs in the left hypochondrium;</li> <li>• <b>at the level of the IX-XI ribs in the left hypochondrium;</b></li> </ul>

Total: 30 points\_\_\_\_\_

## Topic No. 4 Overview of the respiratory system. Nasal cavity and paranasal sinuses. Larynx. Trachea. Main bronchi. Their structure, topography and function. Thyroid and parathyroid glands .

### Plan:

1. Respiratory System Overview
2. Anatomy of the nose
3. Anatomy of the Larynx
4. Anatomy of the trachea
5. Anatomy of the thyroid and parathyroid glands

### Practical tasks and skills

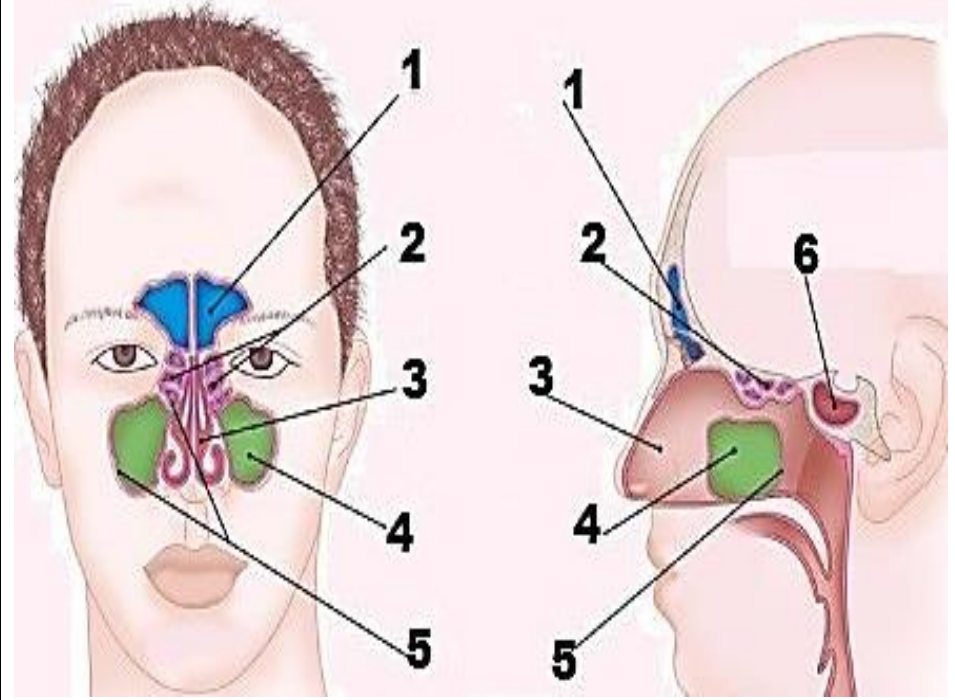
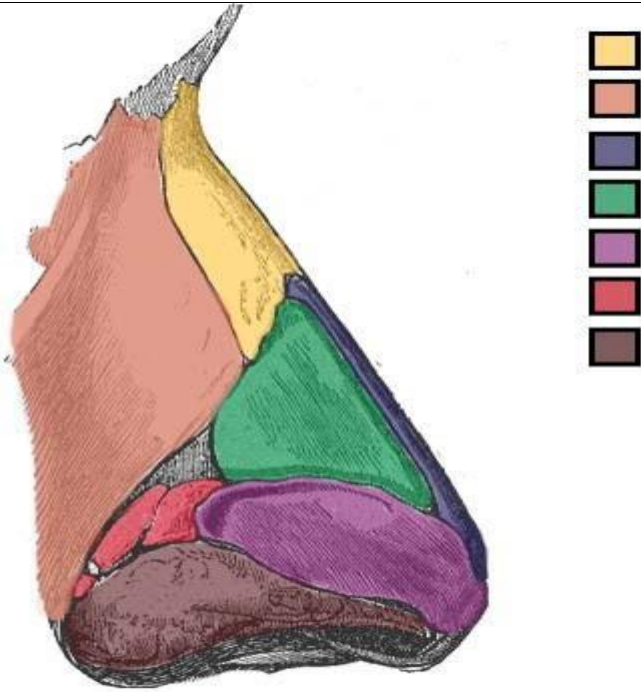
- Dissect nasal cartilage.
- Dissect cartilage, ligaments, joints and muscles of the larynx.
- Study the structure of the nasal cavity.
- Dissect the trachea, main bronchi, bronchial tree.
- Study the topography of the thyroid and parathyroid glands.
- Find the location of the trachea division on the skeleton, taking into account individual characteristics.
- Examine radiographs of the trachea.

### Control questions:

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| <ol style="list-style-type: none"><li>1. What is the role of the respiratory organs?</li><li>2. What organs belong to the upper respiratory tract?</li><li>3. What organs belong to the lower respiratory tract?</li><li>4. What function does the nasal cavity perform?</li><li>5. Show and name the nasal turbinates?</li><li>6. Where do the paranasal sinuses open?</li><li>7. Name and show the nasal passages?</li><li>8. How does the nasal cavity develop?</li><li>9. Show me your vocal cords, glottis?</li><li>10. What role do the vocal muscles play in voice production?</li><li>11. What are the functional features of the human larynx?</li><li>12. What are holotopy , skeletopy and syntopy of the larynx?</li><li>13. What cartilages are classified as hyaline?</li><li>14. Which cartilages of the larynx are elastic?</li></ol> | <ol style="list-style-type: none"><li>15. cartilage and the hyoid bone connected ?</li><li>16. What cartilages of the larynx are connected by joints?</li><li>17. What muscles lie on the back surface?</li><li>18. What muscles are located on the anterior surface of the larynx?</li><li>19. What groups are the muscles of the larynx divided into?</li><li>20. What muscles are compressors ?</li><li>21. What muscles are dilators?</li><li>22. How is the entrance to the larynx limited?</li><li>23. What parts is the laryngeal cavity divided into?</li><li>24. What is the wall of the vestibule of the larynx formed by?</li><li>25. Where is the trachea located?</li><li>26. Where is the tracheal bifurcation located?</li><li>27. Skeletotopy and tracheal syntopy ?</li></ol> |
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Write the structures indicated by numbers?

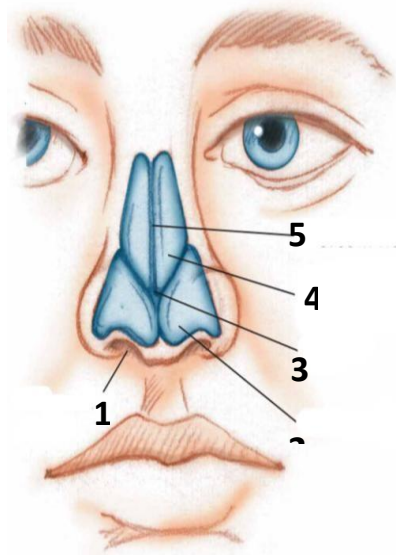
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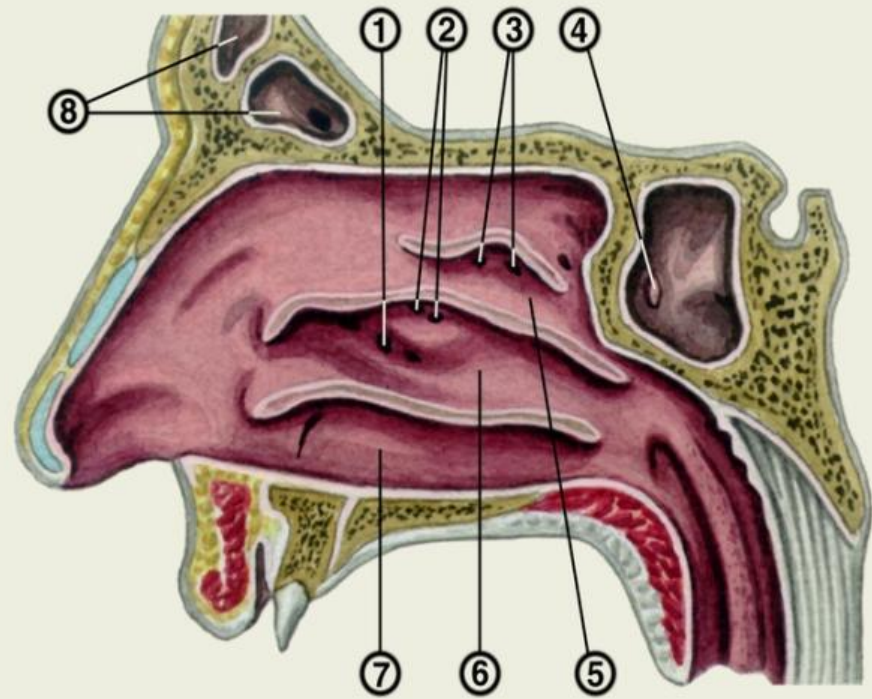
Write the structures indicated by numbers?

Score: **5** points \_\_\_\_\_



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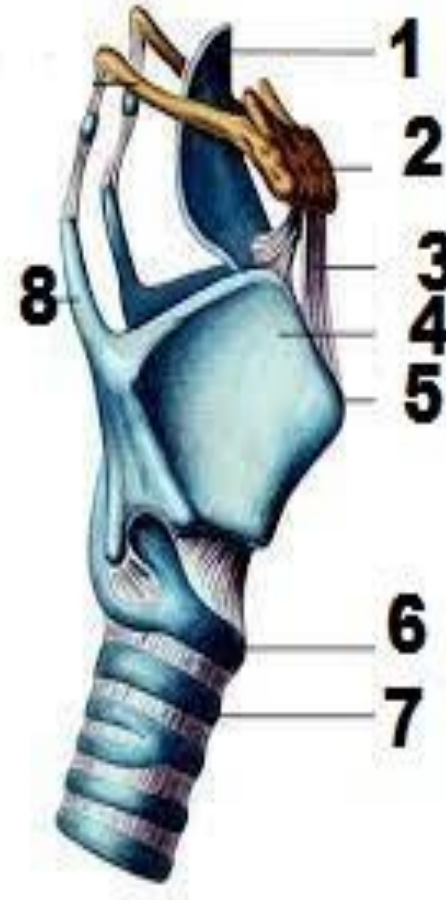
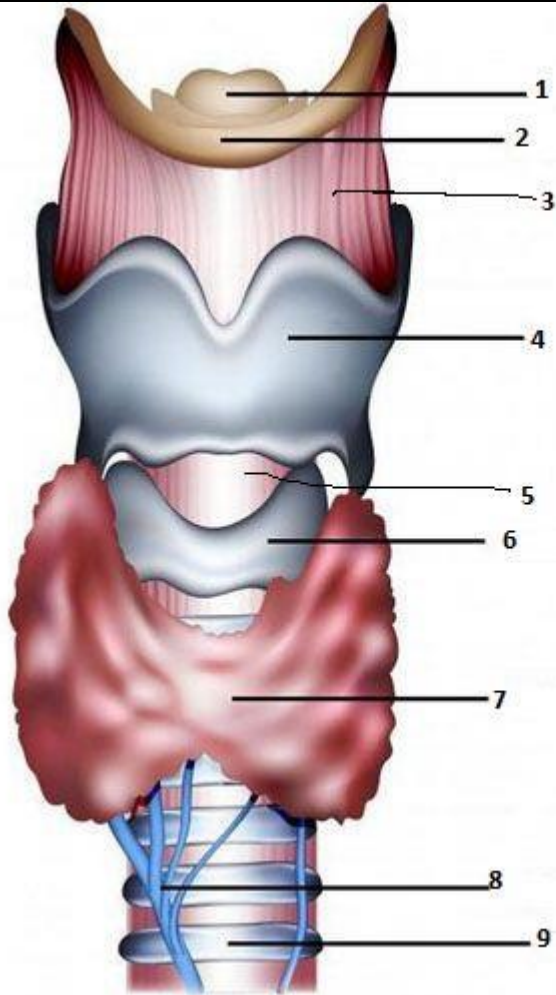


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Write the structures indicated by numbers?

Score: 6 points

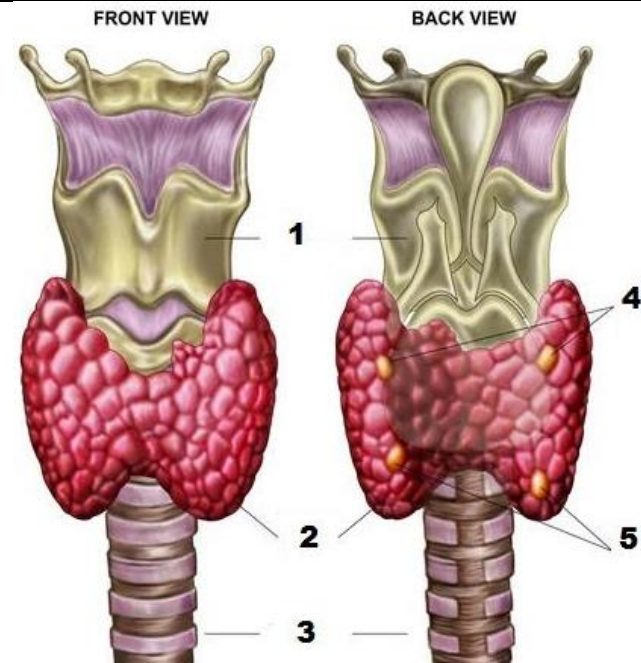
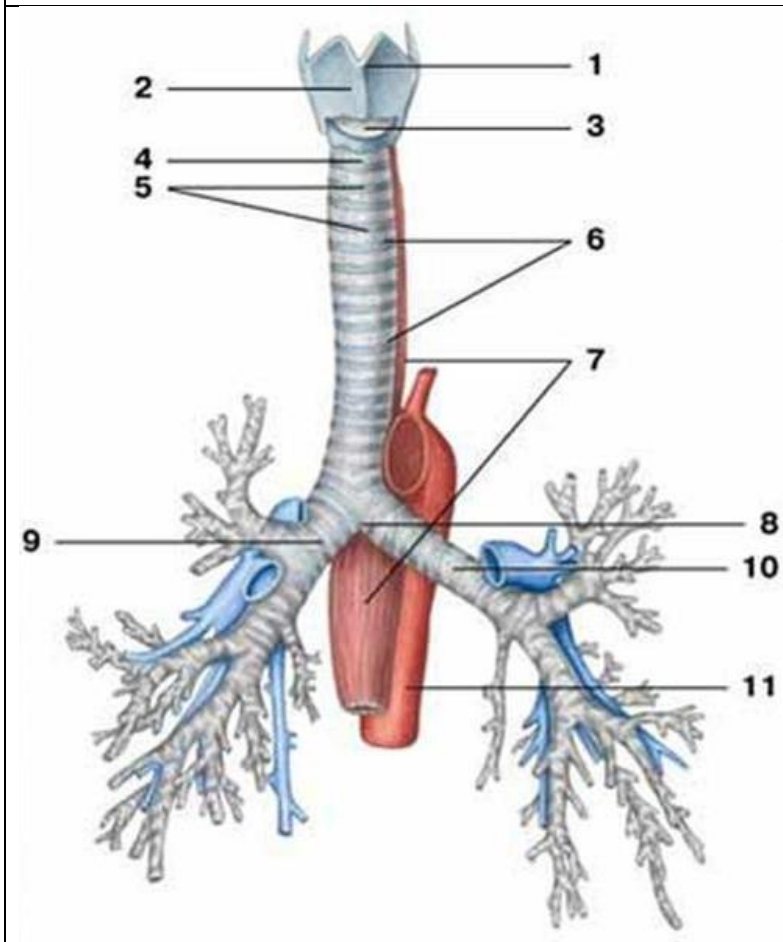


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Write the structures indicated by numbers?

Score: **6** points



Choose one correct answer?

Score: 8 points

**1. The upper respiratory tract includes:**

- nasal cavity, nasal and oral parts of the pharynx, larynx;
- nasal cavity, nasal and oral parts of the pharynx;
- nasal cavity, larynx, trachea;
- nasal cavity, nasal pharynx, larynx;

**2. The lower respiratory tract includes:**

- bronchi;
- trachea, bronchi;
- larynx, trachea, bronchi;
- oropharynx, larynx, trachea, bronchi;

**3. In the nasal septum there are:**

- membranous, cartilaginous and bone parts;
- membranous and cartilaginous parts;
- membranous and bony parts;
- cartilage and bone parts;

**4. The paired cartilages of the larynx include:**

- thyroid, cricoid, epiglottis;
- thyroid, arytenoid, corniculate;
- arytenoid, corniculate, wedge-shaped;
- arytenoid, cricoid, epiglottis;

**5. The unpaired cartilages of the larynx include:**

- thyroid, cricoid, epiglottis;
- thyroid, arytenoid, corniculate;
- arytenoid, corniculate, wedge-shaped;
- arytenoid, cricoid, epiglottis;
- arytenoid, wedge-shaped, cricoid;

**6. The glottis widens:**

- thyroarytenoid muscle;
- cricothyroid muscle;
- lateral cricoarytenoid muscle;
- posterior cricoarytenoid muscle;

**7. The vocal cord is strained:**

- cricothyroid muscle;
- thyroarytenoid muscle;
- posterior cricoarytenoid muscle;
- lateral cricoarytenoid muscle;

**8. Skeletotomy of the trachea:**

- from the IV cervical vertebra to the VI thoracic vertebra;
- from the VI cervical vertebra to the V thoracic vertebra;
- from the VII cervical vertebra to the III thoracic vertebra;
- from the VI cervical vertebra to the II thoracic vertebra;

**9. In the cervical region in front of the trachea there is:**

- larynx;
- esophagus;
- thyroid;
- pharynx;

**10. Number of cartilaginous half-rings of the trachea:**

- 9-11;
- 10-14;
- 16-20;
- 20-25;

**11. The bifurcation of the trachea is located at the level:**

- II thoracic vertebra;
- III thoracic vertebra;
- IV thoracic vertebra;
- V thoracic vertebra;

**12. In the cavity of the larynx there are divisions:**

- intermembranous and intercartilaginous;
- vestibule of the larynx, interventricular region, subglottic cavity;
- cartilage, muscles and ligaments;
- anterior, middle, posterior;

## Topic No. 5 Bronchi. Lungs, pleura and mediastinal organs

### Plan:

1. Anatomy of the bronchi
2. Anatomy of the lungs
3. Anatomy of the pleura
4. Anatomy of the mediastinum

### Practical tasks and skills

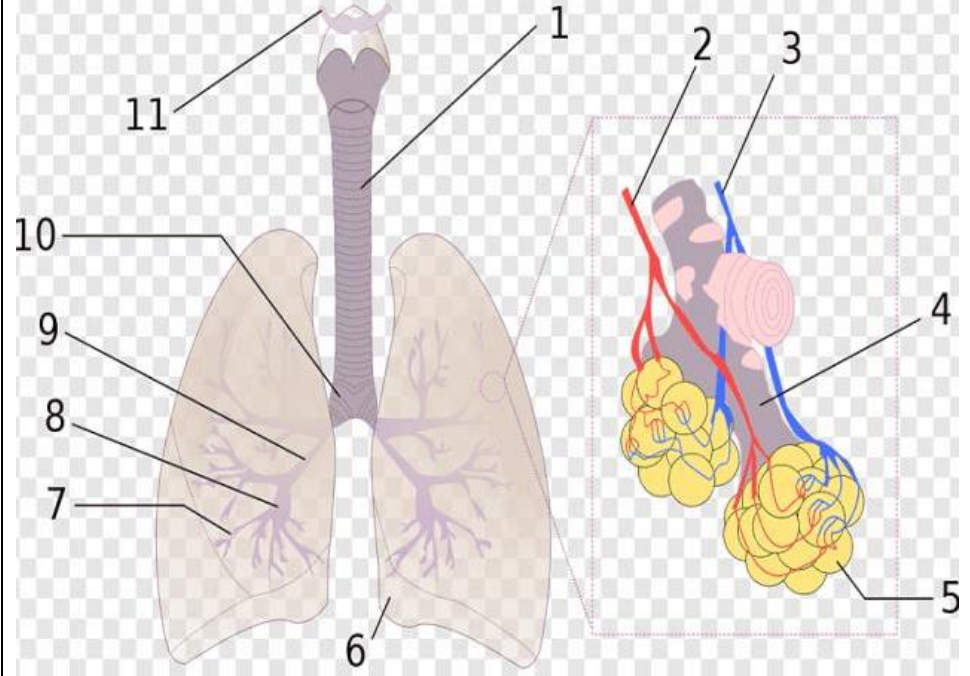
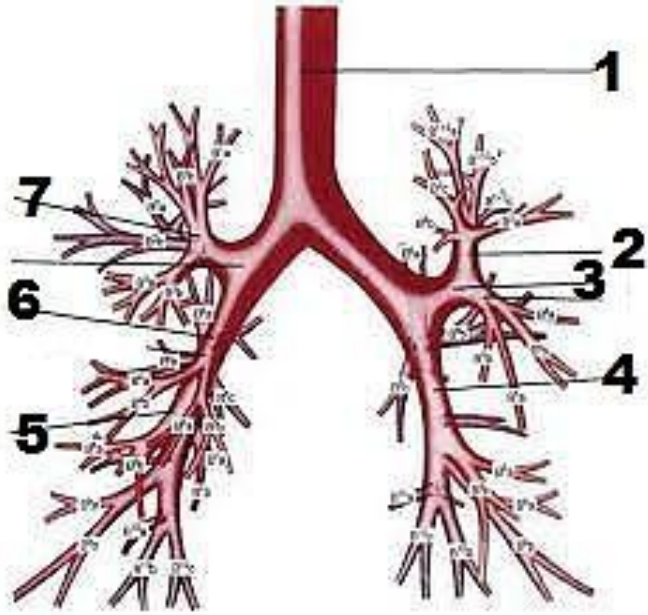
- Determine the boundaries of the lung on the sitter.
- Dissect the lung and isolate the bronchial tree.
- On the corpse of a newborn, open the chest cavity and dissect the mediastinal organs.
- Identify all parts of the parietal pleura by removing one lung.
- Fill out the control chart, silent diagrams and tables in Latin transcription.

### Control questions:

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. What surfaces and edges does the lung have?</li> <li>2. How many segments are there in the lung?</li> <li>3. Where does gas exchange occur?</li> <li>4. What is the difference between the structure of the right and left lungs?</li> <li>5. What is in the hilum of the lungs?</li> <li>6. What is an acinus ? Can you draw a diagram of the acini ?</li> <li>7. what are the boundaries of the lungs?</li> <li>8. Show the boundaries of the pleura on the sitter and the skeleton?</li> <li>9. What is the significance of the pleural sinuses?</li> <li>10. What are the age-related characteristics of the chest?</li> <li>11. What types of breathing do you know?</li> </ol> | <ol style="list-style-type: none"> <li>12. How does anatomical lung capacity change with age?</li> <li>13. Tell us about the features in the structure of the walls of bronchioles in children?</li> <li>14. Give anatomical justification for interlobular pleurisy in childhood?</li> <li>15. What are the boundaries of the lungs in newborns under 3 years of age?</li> <li>16. How do pleural sinuses develop in children?</li> <li>17. What is the superior mediastinum?</li> <li>18. What is the inferior mediastinum?</li> <li>19. Where is the anterior, middle and posterior mediastinum located?</li> <li>20. What organs are located in the anterior mediastinum?</li> <li>21. What organs are located in the posterior mediastinum?</li> </ol> |
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Write the structures indicated by numbers?

Score: 5 points



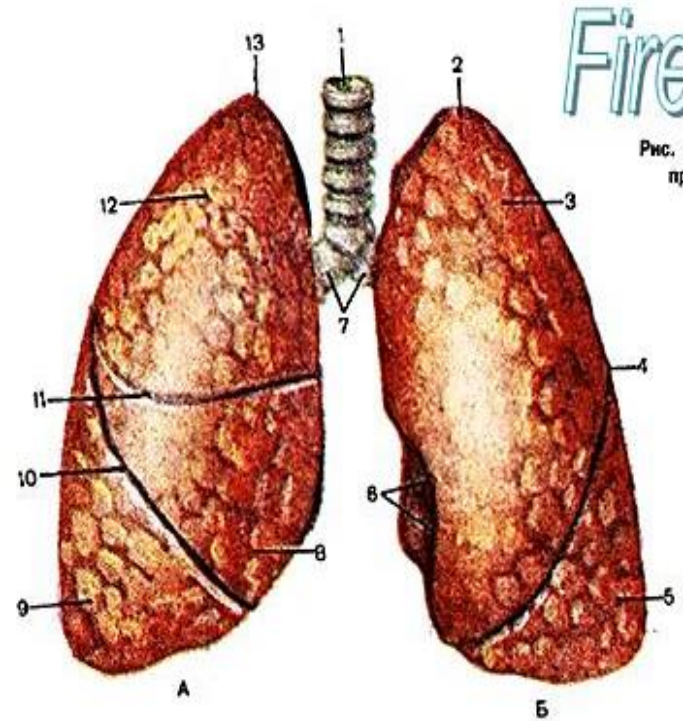
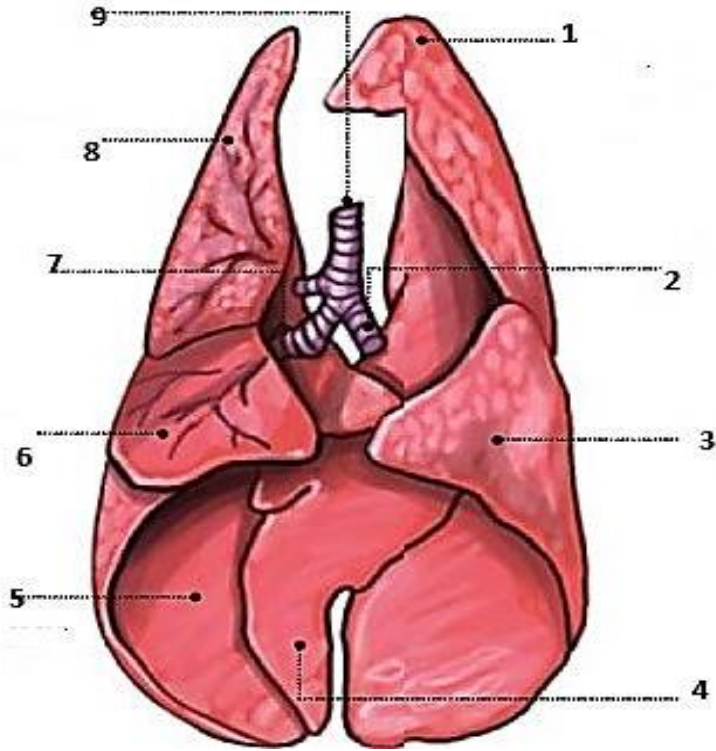
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Write the structures indicated by numbers?

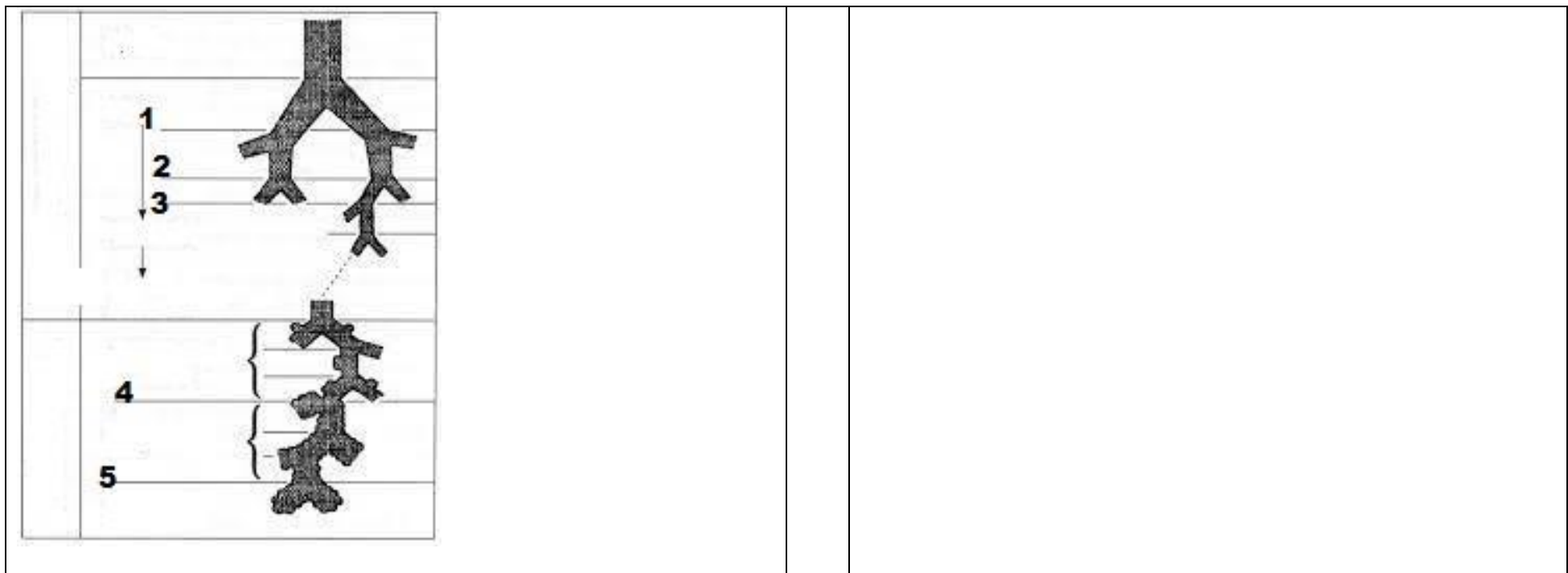
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Answer the questions?	Write your answers? Score: <b>5</b> points _____	
1. Why does the body need air?	1	
2. What element warms the cold air in the nose?	2	
3. Function of the paranasal sinuses?	3	
4. What kind of organ is the “thymus”?	4	
5. How is a person’s voice formed?	5	
6. write the upper and lower parts of the respiratory tract?	6	
	1	
	2	
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	5	



Choose one correct answer?	Score: <u>7</u> points _____
<p>1. Doesn't they belong to the airways of the respiratory organs?</p> <ol style="list-style-type: none"> <li>1. Nasal cavity</li> <li>2. Larynx</li> <li>3. <i>Lungs</i></li> <li>4. Trachea</li> </ol> <p>2. Does the inferior opening of the nasolacrimal duct open into the nasal passage?</p> <ol style="list-style-type: none"> <li>1. Upper</li> <li>2. Average</li> <li>3. <i>Nizhny Novgorod</i></li> <li>4. The entire nasal cavity</li> </ol> <p>3. In adults, is the larynx located at the level of the vertebrae?</p> <ol style="list-style-type: none"> <li>1. 2-4 cervical</li> <li>2. <i>4-6 cervical</i></li> <li>3. 7 cervical – 1.2 thoracic</li> <li>4. 3-5 breasts</li> </ol>	<p>7. The hilum of the lungs is located on the surface:</p> <ol style="list-style-type: none"> <li>1. vertebral</li> <li>2. <i>medial</i></li> <li>3. diaphragmatic</li> <li>4. costal</li> </ol> <p>8. The structural and functional units of the lung are:</p> <ol style="list-style-type: none"> <li>1. shares</li> <li>2. slices</li> <li>3. <i>acini</i></li> <li>4. segments</li> </ol> <p>9. Behind the trachea is</p> <ol style="list-style-type: none"> <li>1. pharynx</li> <li>2. larynx</li> <li>3. <i>esophagus</i></li> <li>4. thyroid</li> </ol>

<p><b>4. The unpaired cartilages of the larynx include the cartilage:</b></p> <ol style="list-style-type: none"> <li>1. arytenoid</li> <li>2. Horn-shaped</li> <li>3. Wedge-shaped</li> <li>4. Cricoid</li> </ol> <p><b>5. Does the bifurcation of the trachea into two main bronchi occur at the level of the vertebrae?</b></p> <ol style="list-style-type: none"> <li>1. 7 cervical – 1 thoracic</li> <li>2. 2-3 breasts</li> <li>3. 4-5 breasts</li> <li>4. 6-7 breasts</li> </ol> <p><b>6. There are no surfaces on each lung:</b></p> <ol style="list-style-type: none"> <li>1. costal</li> <li>2. medial</li> <li>3. diaphragmatic</li> <li>4. lateral</li> </ol>	<p><b>10. Bifurcation of the trachea is</b></p> <ol style="list-style-type: none"> <li>1. transition of the larynx to the trachea</li> <li>2. <i>division of the trachea into bronchi</i></li> <li>3. air entering the pleural cavity</li> <li>4. narrowing of the trachea</li> </ol> <p><b>11. The pleural cavity is located between</b></p> <ol style="list-style-type: none"> <li>1. lungs and chest</li> <li>2. <i>layers of pleura</i></li> <li>3. pleura and heart</li> <li>4. two lungs</li> </ol> <p><b>12. The main voice-producing part of the larynx is</b></p> <ol style="list-style-type: none"> <li>1. Upper – extended</li> <li>2. Medium – narrowed</li> <li>3. Lower – extended</li> <li>4. Upper - lower</li> </ol>
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Total: 30 points\_\_\_\_\_

## Topic No. 6 Kidneys. Adrenal glands. Ureters, bladder, urethra.

### Plan:

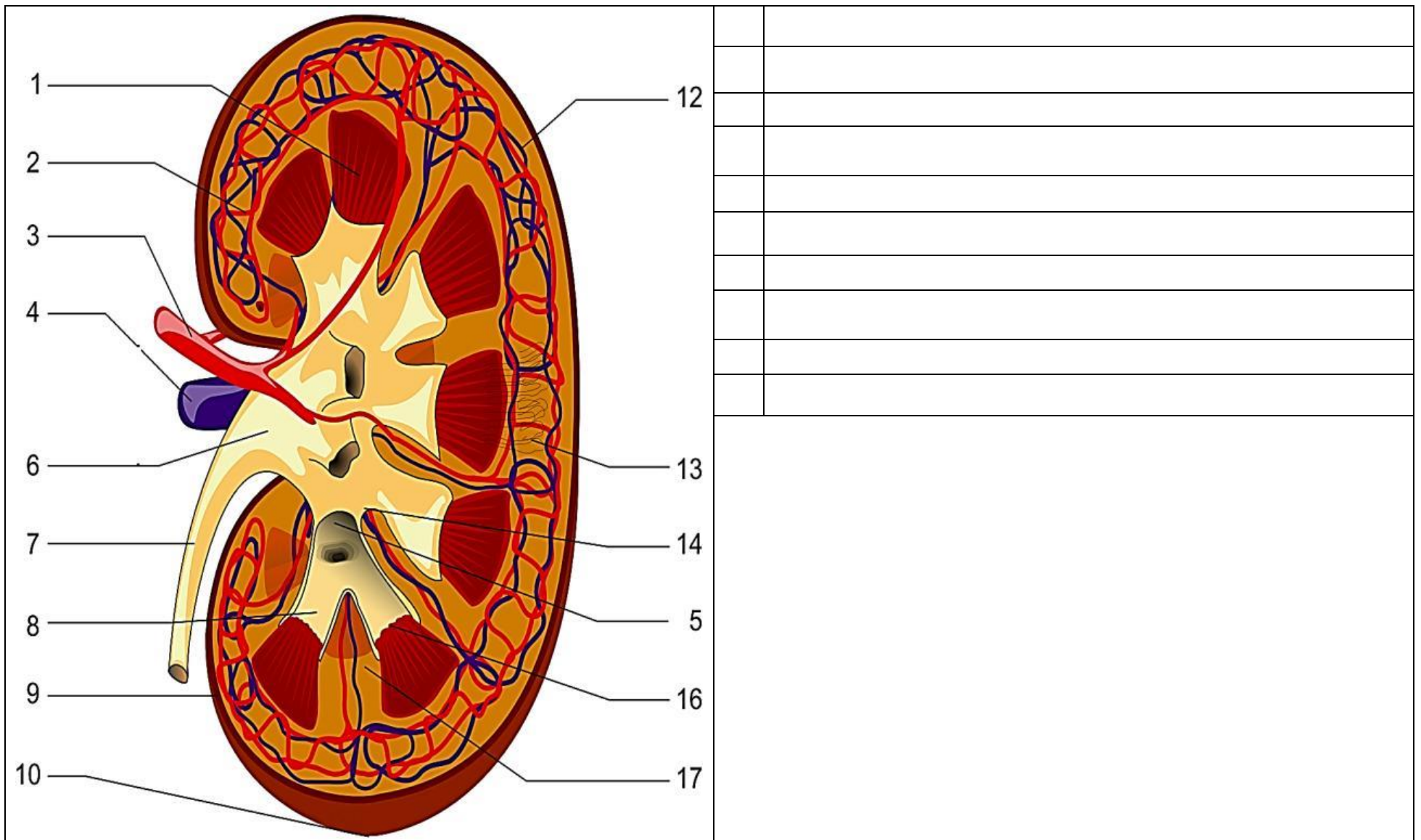
1. Kidney Anatomy;
2. Anatomy of the ureters;
3. Anatomy of the bladder;
4. Anatomy of the urethra;

### Practical tasks and skills

- Dissect the kidneys and adrenal gland.
- Study the topography of the kidney in relation to the skeleton.
- Examine radiographs of the kidney.
- Schematically draw the structure of a nephron.
- Dissect the bladder wall and urethra.
- Study the topography of the urethra.







Write the structures indicated by numbers?	Score: <u>3</u> Balla _____	
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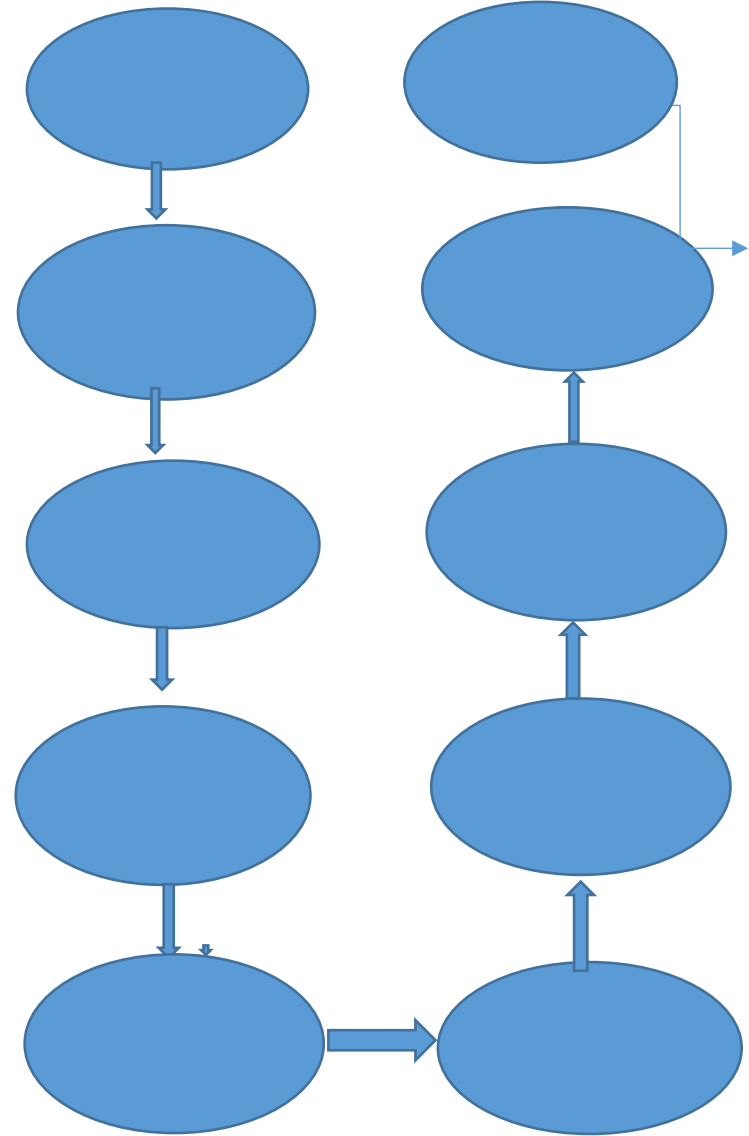
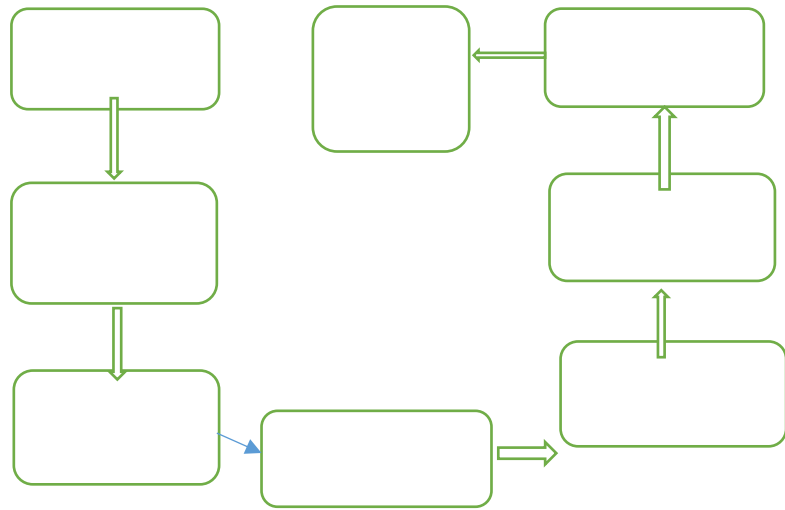


Write the fixation device for the kidney?

Blood supply to the kidney?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

**Mechanism of urine formation?**





Choose one correct answer ?

Score: 10 points

1. What is the name of the organ that serves to remove urine from the body?

- 1. bladder
- 2. ureter
- 3. urethra
- 4. appendix

2. What does primary urine contain?

- 1. only harmful substances
- 2. only beneficial substances
- 3. both harmful and beneficial substances
- 4. only water

3. The paired organ of the urinary system is

- 1. Ureters
- 2. Bladder
- 3. Urethra
- 4. Kidneys

4. In a convoluted tubule occurs

- 1. Selective absorption of substances back into the blood
- 2. Excretion of urine into the external environment
- 3. Filtration of blood plasma
- 4. Neutralization of uric acid

5. The kidneys are located in the medulla

- 1. mixed lot
- 2. renal pyramids
- 3. blood capillaries
- 4. renal corpuscles

6. The primary urine of a healthy person should not contain

- 1. proteins
- 2. salts
- 3. amino acids
- 4. glucose

7. Indicate the correct sequence of urine formation processes

- 1. blood plasma filtration, tubular secretion, reabsorption
- 2. blood plasma filtration, reabsorption, tubular secretion
- 3. tubular secretion, blood plasma filtration, reabsorption
- 4. tubular secretion, reabsorption, filtration of blood plasma

8. The amount of urine excreted per day in an adult is

- 1. 0.5 - 0.8 liters
- 2. 1.5 - 1.8 liters
- 3. 2.5 - 3 liters
- 4. 3.3 - 4 liters

9. The structural and functional unit of the kidney is

- 1. capsule
- 2. nephron
- 3. convoluted tubule
- 4. glomerulus

10. Upper limit of the location of the right kidney

- 1. upper edge of the third lumbar vertebra
- 2. middle of the XI thoracic vertebra
- 3. lower edge of the XI thoracic vertebra
- 4. middle of the third lumbar vertebra

Total: 30 points \_\_\_\_\_

# Topic No. 7 Male and female genital organs. Crotch .

Plan:

1. Anatomy of the external male genitalia;
2. Anatomy of the external male genitalia;
3. Anatomy of the external female genitalia;
4. Anatomy of the external female genitalia;
5. Crotch.

## Practical tasks and skills

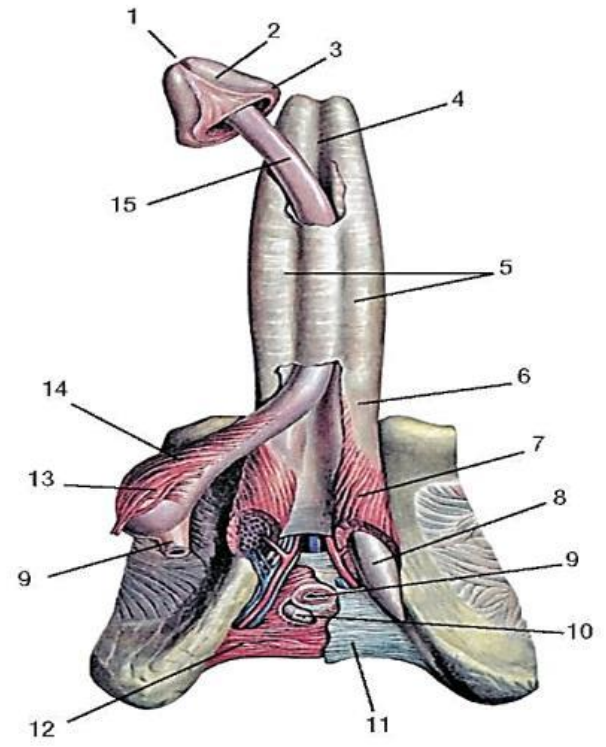
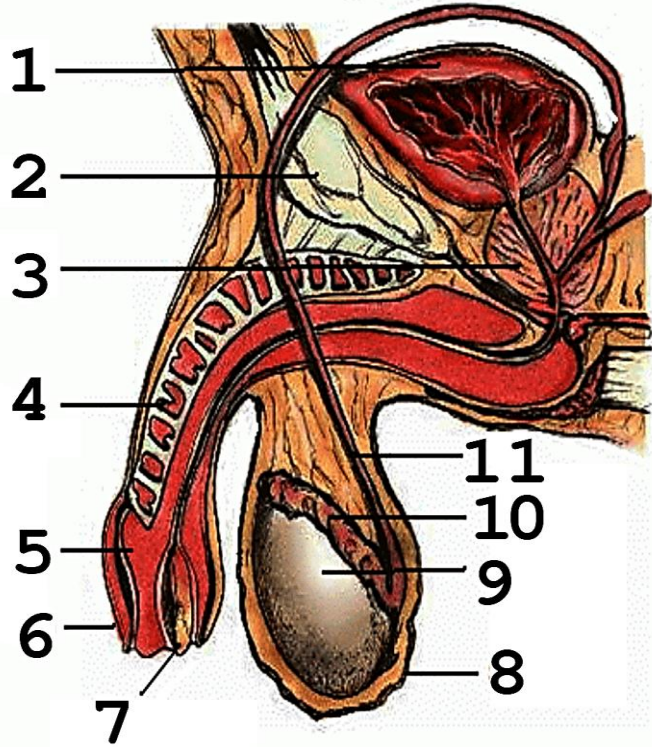
- Dissect the testicular membranes.
- Dissect the spermatic cord.
- Schematically draw the vas deferens.
- Schematically draw the testicular membranes.
- Dissect the wall of the tube, uterus, vagina.
- Dissect the ligaments of the ovary and uterus.
- Study the topography of the uterus, ovary, tube, vagina.
- Schematically draw the course of the peritoneum in the pelvic cavity.
- Dissect the muscles and fascia of the perineum.
- Schematically draw a diagram of the perineal fascia

### Control questions:

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>1. List the external and internal male genitalia?</li><li>2. What is the structure of the testicular parenchyma and seminal system?</li><li>3. How is the ejaculatory duct formed?</li><li>4. What are the testicular membranes and their origin?</li><li>5. What formations form the wall of the penis?</li><li>6. What extensions does the body of the penis have?</li><li>7. What parts are distinguished in the penis?</li><li>8. What formations are distinguished in the area of the head of the penis?</li><li>9. How is the penile fixation apparatus formed?</li><li>10. How does the process of testicular descent occur?</li><li>11. What organs develop in men from the Wolffian and Mullerian ducts?</li><li>12. What anomalies of the development of male genital organs do you know?</li><li>13. Show the uterine cavity and cervical canal?</li><li>14. What is the relationship between the vaginal vaults and the recesses (rectumuterine and vesicouterine) of the pelvis?</li><li>15. What parts do the external female genitalia consist of?</li><li>16. Where is the ovary located, and what is its relationship to the peritoneum?</li></ol> | <ol style="list-style-type: none"><li>17. How is the uterus covered by peritoneum?</li><li>18. What sections are distinguished in the uterus? What parts does the cervix have?</li><li>19. What positions of the uterus are distinguished?</li><li>20. What parts does the fallopian tube divide into and where does it open?</li><li>21. How are the walls of the uterus and fallopian tube structured?</li><li>22. What is the hymen?</li><li>23. How are the external female genitalia built?</li><li>24. Where is the vestibule bulb located and how is it structured?</li><li>25. Between what points of the skeleton is the perineum located?</li><li>26. Where and how is the deep transverse perineal muscle located?</li><li>27. What is the urethral sphincter?</li><li>28. How is the levator ani muscle built?</li><li>29. What areas is the perineum divided into?</li><li>30. What is in the anal area?</li><li>31. What is in the genitourinary area?</li><li>32. What diaphragms does the perineum contain?</li><li>33. What passes through the pelvic and genitourinary diaphragms?</li><li>34. How are the pelvic and genitourinary diaphragms formed?</li><li>35. Name the superficial and deep muscles of the pelvic and genitourinary diaphragm?</li></ol> |
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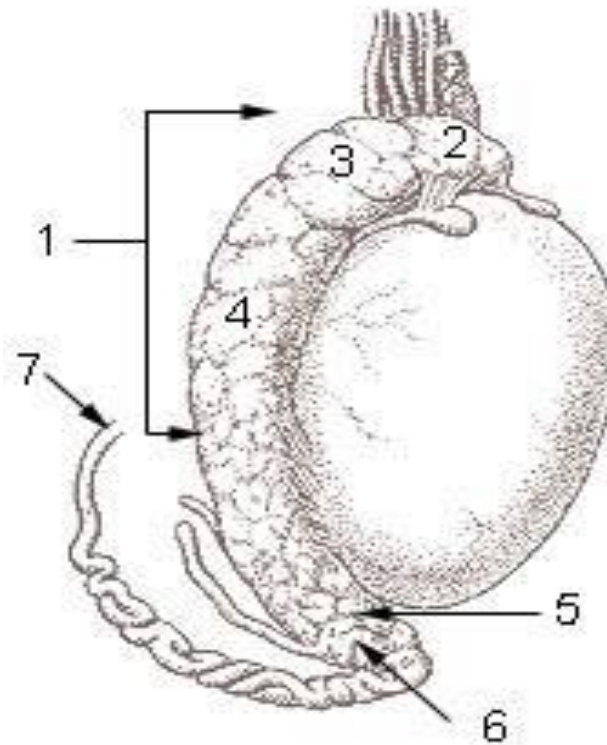
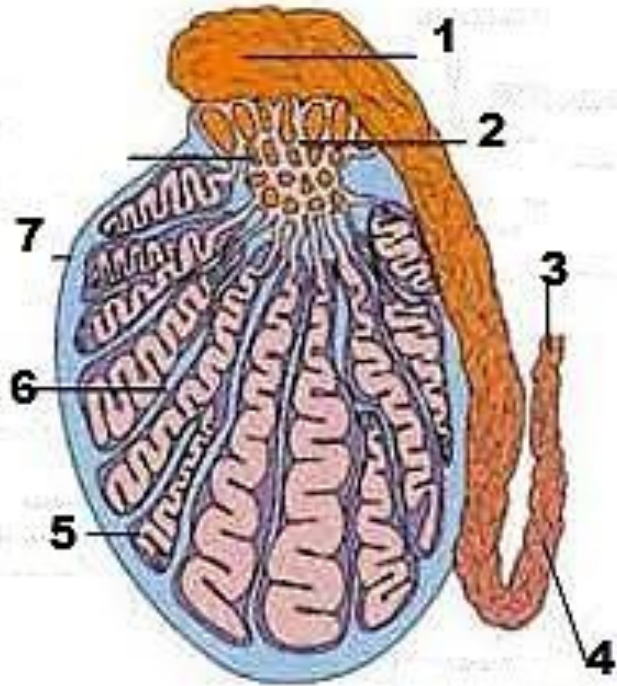
Write the structures indicated by numbers? Score: 5 points



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Write the anatomical structures indicated by numbers?

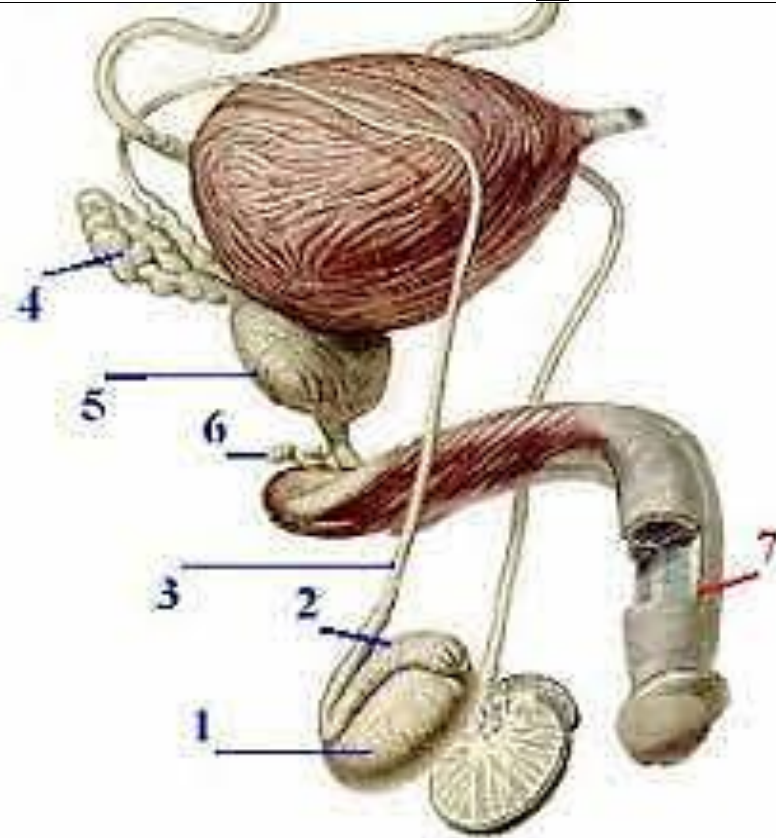
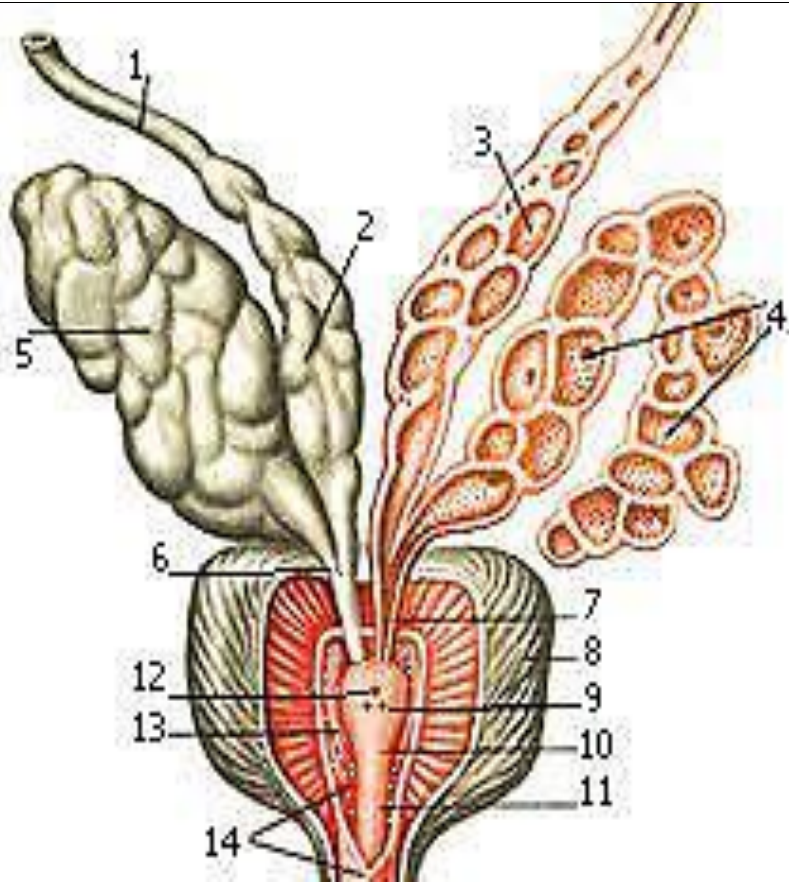
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Write the anatomical structures indicated by numbers?

Score: 4 points



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**13. In the testicle there are:**

- lateral and medial surfaces, anterior and posterior edges, upper and lower ends;
- lateral and medial edges, superior and inferior ends, anterior and posterior surfaces;
- lateral and medial surfaces, superior and inferior edges, anterior and posterior ends;

**14. The testicle has edges:**

- upper and lower;
- front and back;
- lateral and medial;
- posterior, lateral

**15. Sperm are produced:**

- in convoluted seminiferous tubules;
- in straight seminiferous tubules;
- in the mediastinum of the testicle;
- in the efferent tubules;

**16. The seminal vesicles are located:**

- in the pelvic cavity above the prostate gland;
- in the pelvic cavity below the prostate gland;
- behind the bulbous part of the urethra;
- behind the rectum;

**17. The prostate gland is located**

18. above the bladder;
- under the urogenital diaphragm;
  - under the bladder under the urogenital diaphragm;
  - under the bladder on the urogenital diaphragm;

**6. Specify the part of the male urethra:**

- A ) abdominal;
- B ) prostate ;
- C ) pelvic;
- D ) lumbar;

**7. In the uterus there are:**

- A ) body;
- B ) gate;
- C ) corpus luteum;
- D ) clitoris;

**8. Indicate in which testicular tubules sperm are produced:**

- A. Straight seminiferous tubules
- B. Testicular rete
- C. Convoluted seminiferous tubules
- D. Efferent testicular tubules

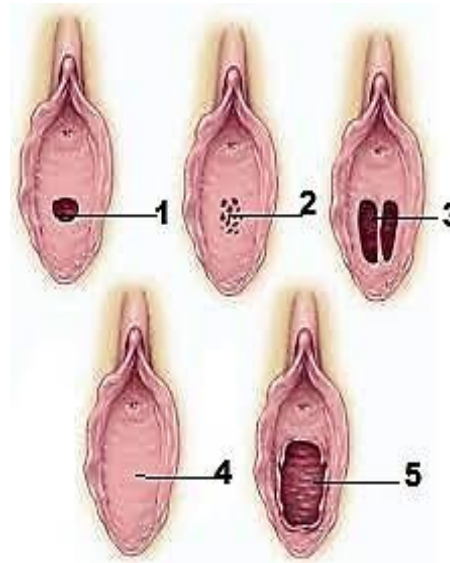
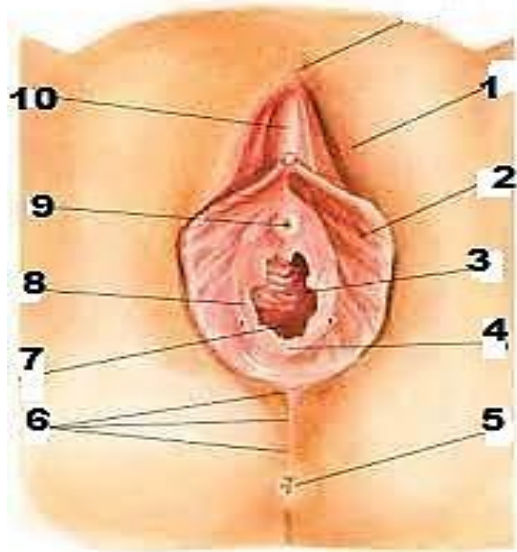
**9. Indicate the widest part of the fallopian tube:**

- A ) uterine part;
- B ) ampulla of the fallopian tube;
- C ) isthmus of the fallopian tube;
- D ) funnel of the fallopian tube.

**10. Specify the ligament of the uterus:**

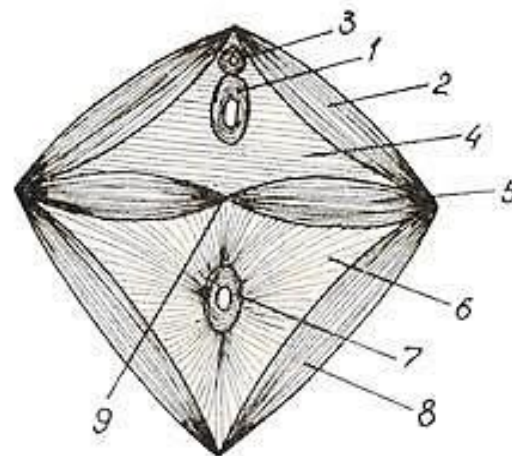
- A ) inguinal ligament;
- B ) own ligament of the ovary;
- C ) round ligament;
- D ) deltoid ligament.





Describe the muscles of the pelvic diaphragm?

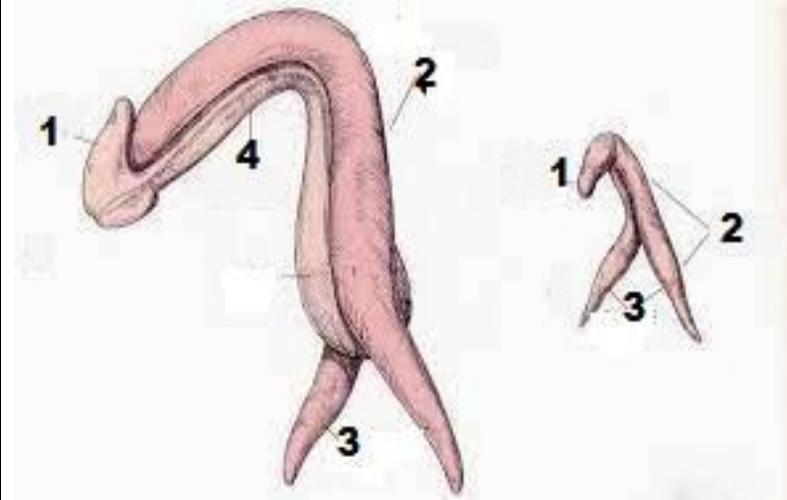
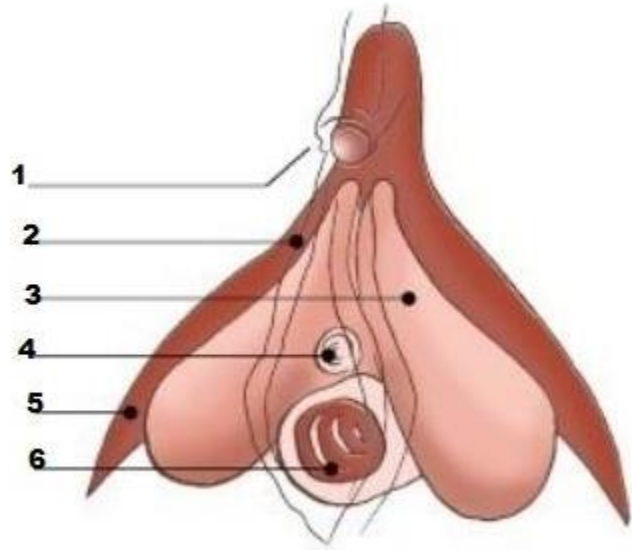
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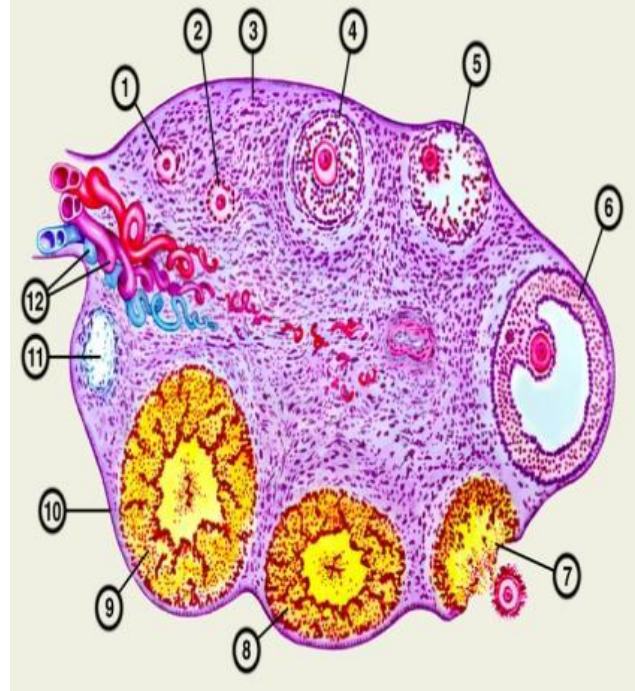


Write the anatomical structures indicated by numbers ? Score: 2 points

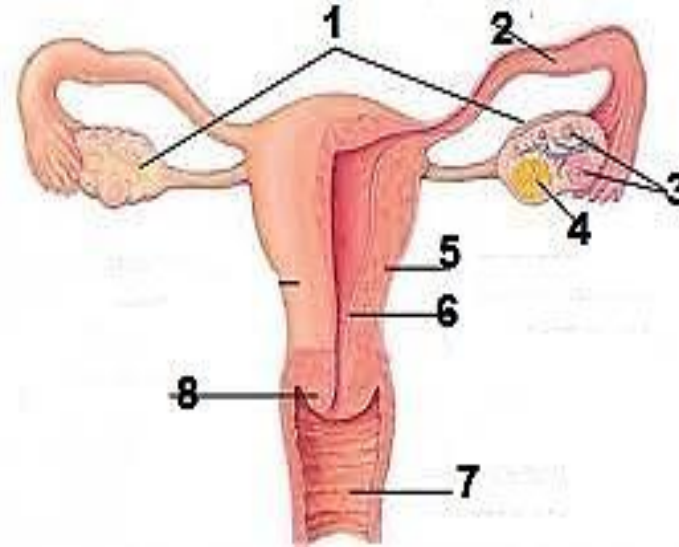


1			
2		1	
3		2	
4		3	
5		4	
6			
		1	
		2	
		3	

Write the anatomical structures indicated by numbers



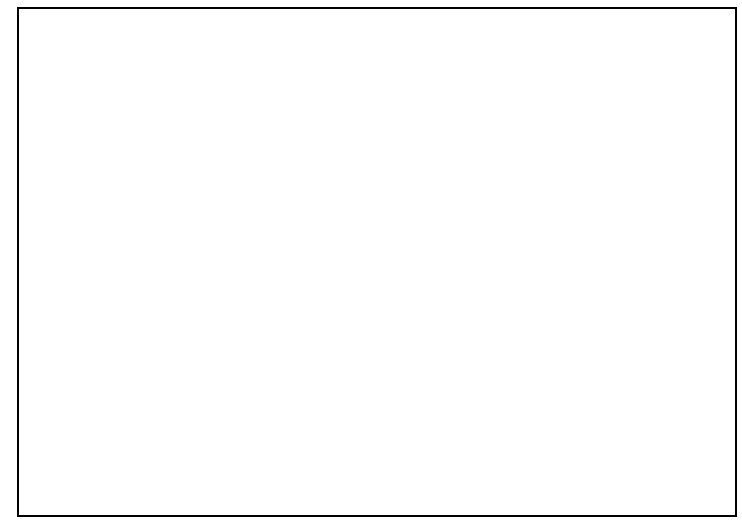
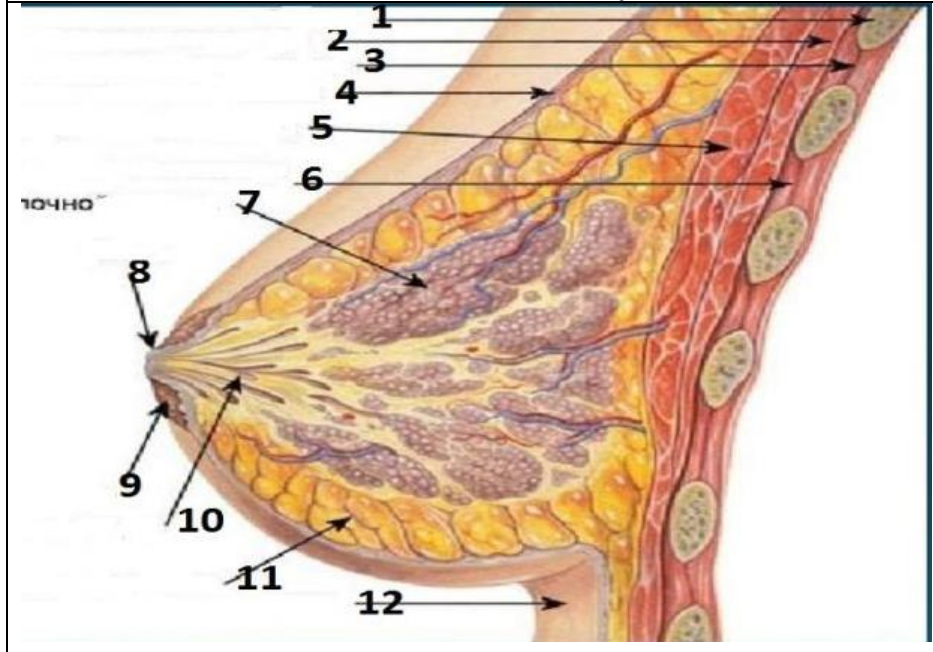
Score: 2 points



1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9			
10			
eleven			
12			

Score: 3 Points

**Write the anatomical structures indicated by numbers?** **Schematically draw the perineum?**



1			<b>Describe the regulation of the menstrual cycle?</b>
2			
3			
4			
5			
6			
7			
8			
9			
10			
eleven			
12			

**Total: 30** points