МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ МУРМАНСКОЙ ОБЛАСТИ

ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ ПРОФЕССИОНАЛЬНОЕ

ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ МУРМАНСКОЙ ОБЛАСТИ

«МУРМАНСКИЙ МЕДИЦИНСКИЙ КОЛЛЕДЖ»

**УЧЕБНО-МЕТОДИЧЕСКАЯ РАЗРАБОТКА**

**ПО ТЕМЕ «THECARDIOVASCULARSYSTEM»**

**по учебной дисциплине «Английский язык»**

**(для студентов программы подготовки специалистов среднего звена**

**по специальности 31.02.01 Лечебное дело; 34.02.01 Сестринское дело)**



**Разработчик: Новак И.В., преподаватель английского языка**

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**ПОЯСНИТЕЛЬНАЯ ЗАПИСКА**

Методические рекомендации по теме «The cardiovascular system» составлены в соответствии с Федеральным государственным образовательным стандартом среднего профессионального образования, предназначены для студентов медицинских колледжей, реализующих программу подготовки специалистов среднего звена по специальностям 34.02.01 Сестринское дело и 31.02.01 Лечебное дело. Также данная разработка может быть полезной для преподавателей английского языка.

Тема «The cardiovascular system» является интегративной частью тематического раздела «Anatomy and physiology».

Данная разработка составлена с учетом современных тенденций в методике преподавания английского языка и демонстрирует реализацию компетентностного подхода в преподавании иностранных языков в среднем специальном учебном заведении.

Разработка включает несколько разделов:

* I раздел: word study;
* II раздел: text study;
* III раздел: learn to speak professional English;
* IV раздел: keys to the tasks;
* V раздел: self-check test;
* VI раздел: keys to the self-check test.

Методическая разработка содержит:

* список необходимых лексико-грамматических структур с транскрипцией;
* базовый текст;
* упражнения;
* ключи.

Упражнения (имитационные, подстановочные, творческие) направлены на формирование навыков устной речи по данной теме.

Данная тематическая разработка эффективна при самостоятельной работе студентов над указанной темой, так как содержит ключи к упражнениям и рекомендации по изучению и освоению лексико-грамматических структур.

Самостоятельная работа студентов предполагает предварительное повторение следующих грамматических разделов:

* правила употребления глагола «tobe»;
* правила употребления структуры «thereis / thereare»;
* правила употребления «to have»;
* правила употребления «Present Simple»;
* правила употребления «Present Simple Passive»;
* правила построения простого предложения.

Используя данную тематическую разработку, студенты имеют возможность самостоятельно подготовить:

* благодаря наличию ключей проверить правильность выполнения упражнений (самоконтроль);
* совершенствовать навыки употребления лексико-грамматических структур в устной речи;
* монологическое высказывание по теме.

**PART 1: WORD STUDY**

**Task 1: Read and learn the following words and word combinations.**

**cardiovascular** [kɑːdɪəʊˈvæskjʊlə] – сердечно-сосудистая

**blood vessel** [ˈblʌd ˈvesəl] – кровеносный сосуд

**cavity** [ˈkævətɪ] – полость

**pump** [pʌmp] – насос

**chamber** [ˈtʃeɪmbə] – камера

**atrium** [ˈeɪtrɪəm] - предсердие; мн.ч **atria**

**ventricle** [ˈventrɪkl̩] – желудочек

**septum**  [ˈseptəm] – перегородка

**valve**[vælv] – клапан

**tricuspid**[traɪˈkʌspɪd] – трехстворчатый

**mitral**[ˈmaɪtrəl] – митральный

**supply** [səˈplaɪ] – снабжать, подавать

**artery** [ˈɑːtərɪ] – артерия

**venule** [ˈvenjʊl] – венула

**eject** [ɪˈdʒekt] - вбрасывать

**superior vena cava** [s(j)uːˈpɪ(ə)rɪə ˈvɪːnə ˈkɑːvə ] – верхняя полая вена

**venous** [ˈvɪːnəs] – венозная

**inferior vena cava** [ɪnˈfɪərɪə ˈvɪːnə ˈkɑːvə] – нижняя полая вена

**pulmonary circulation** [ˈpʌlmənərɪsɜːkjʊˈleɪʃən] – малый круг кровообращения

**waste carbon dioxide** [weɪst ˈkɑːbən ˈdaɪɒksaɪd] – переработанный углекислый газ

**hemoglobin** [ˈhiːməˈɡləʊbɪn] – гемоглобин

**opposite direction** [ˈɒpəzɪtdəˈrekʃn] – противоположное направление

**maintain** [meɪnˈteɪn]  - поддерживать

**eliminate**[ɪˈlɪmɪneɪt] - удалять

**beneficial substance** [benɪˈfɪʃəlsʌbstəns] – полезное вещество

**heart** [hɑːt] – сердце

**сapillary**[ˈkæpɪlerɪ] – капилляр

**muscular** [ˈmʌskjʊlə] –мышечный

**chest** [tʃest] – грудная клетка

**systemic circulation** [sɪˈstemɪksɜːkjʊˈleɪʃən] – большой круг кровообращения

**aorta** [eɪˈɔːtə] – аорта

**arteriole**[ɑːˈtɪərɪəʊl] – артериола

**tissue** [ˈtɪʃuː] – ткань

**urinary** [ˈjʊərɪn(ə)rɪ] – мочевой

**aortic** [eɪˈɔːtɪk] – аортальный

**pulmonary** [ˈpʌlmən(ə)rɪ] - легочный

**Task 2: Sign the parts of the heart shown in the picture.**



**3**

**2**

**1**

**8**

**9**

**7**

**6**

**5**

**4**

**Task 3: Make words by putting letters in the correct order and translate them in the Russian.**

1. n i e l v e t c r
2. s v e s e l
3. m u a i r t
4. g l e h o o n m b i e
5. y m n u o p l a r
6. v y t c a i
7. n v o u s e
8. t d i i r s c u p
9. a t r o a
10. n i a t n a i m

**Task 4: Find the following words:** *желудочек, митральный, кровь, перегородка, полость, сердце, предсердие, насос, гемоглобин.*

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| l | a | m | t | j | m | p | u | m | p |
| h | e | m | o | g | l | o | b | i | n |

**Task 5: Fill in the diagram with the following words:**

cavity, eliminate, hemoglobin, valve, mitral, supply, eject, venous, chamber, tissue, superior, maintain, tricuspid, ventricle, beneficial, inferior, divide, begin

|  |  |  |
| --- | --- | --- |
| NOUNS | VERB | ADJECTIVE |
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**Task 6: Complete the sentences:**

1. The heart is divided into four … .
2. The heart has two … and two … .
3. The chamber is the … where blood is located.
4. The … of the heart … keep the blood flowing in one direction.
5. The heart works like a ….
6. All arteries are divided into … and veins into … .
7. Gas exchange occurs in the … ,the smallest … of our body.
8. The circulatory system ensures the supply of … to every cell of the body.
9. … is a protein that carries oxygen.
10. The … circulation begins with the … .

**PART 2: TEXT STUDY**

**Task 1: Read and translate the text.**

The cardiovascular system is made up of the heart, blood vessels and blood. Blood vessels are divided into arteries, capillaries and veins. The heart is situated in the center of the circulatory system. It is a muscular organ located in the chest cavity that pumps 4-5 liters of blood in one minute. The heart consists of four chambers: two atria and two ventricles. Right and left sides of the heart are separated by a septum. The valves prevent the reverse flow of blood. There are four valves in the heart: tricuspid, mitral, pulmonary and aortic valves.

The systemic circulation begins with the largest artery - the aorta. Systemic circulation supplies the upper and lower extremities, head, trunk, all internal organs. Due to the contraction of the left ventricle, blood is ejected into the aorta, which then divides into arteries and arterioles. Then arterial blood passes into venules, where the blood becomes venous. The venules unite together to form veins. These veins form the superior vena cava and inferior vena cava. The systemic circulation finishes in the right atrium.

The pulmonary circulation is the part of the cardiovascular system that carries oxygen-poor blood away from the heart to the lungs, and returns oxygen-rich blood back. Pulmonary circulation begins with the right ventricle.Blood from the right ventricle enters the lungs through the pulmonary artery. The pulmonary artery is divided into the left and right pulmonary arteries. In the lungs the blood gives up waste carbon dioxide and takes in fresh oxygen. Oxygenated blood is carried from the lungs in the pulmonary vein to the left atrium. From here it passes through the mitral valve into the left atrium.

The circulatory system performs important functions. The exchange of gases is one of the most important functions of the cardiovascular system. Oxygen is moved in blood by attaching to the protein called hemoglobin. The oxygen moves from the bloodstream into the tissues, while carbon dioxide travels in the opposite direction. The circulatory system also helps our body maintain normal body’s temperature. Blood eliminates waste products from the body through the urinary system. With the help of the circulatory system beneficial substances, vitamins and minerals are carried to each cell of the body.

**Task 2: Find in the text English equivalents for these words and word combinations.**

1. сердечно - сосудистая система; 2. кровеносные сосуды; 3. делиться на; 4. мышечный орган; 5. предсердие. 6. нижняя полая вена. 7. митральный клапан; 8. кровь выбрасывается; 9. проходит через; 10. левая и правая легочные артерии; 11. отдавать углекислый газ; 12. трехстворчатый клапан; 13. движение газов; 14. присоединение к белку; 15. поддерживать нормальную температуру. 16. выводить продукты распада; 17. полезные вещества.

**Task 3: Are these statements correct or false? Correct the statement, if it is false:**

1. The heart is the center of the circulatory system.
2. The systemic circulation supplies the lungs with blood.
3. The aorta divides into arteries and arterioles.
4. The systemic circulation finishes in the left ventricle.
5. The pulmonary circulation begins with the right ventricle.
6. The blood gives up the waste carbon dioxide in the lungs.
7. The pulmonary circulation begins with the right atrium.
8. The pulmonary artery is divided into superior and inferior arteries.
9. Oxygen is moved in your blood by attaching to a protein called hemoglobin.

**Task 4: Answer the questions.**

1. What does the cardiovascular system consist of?

2. What chambers does the heart consist of?

3. What valves are there in the heart?

4. What does systemic circulation begin with?

5. Where does systemic circulation end?

6. What does systemic circulation supply?

7. Where does pulmonary circulation begin?

8. Where does pulmonary circulation end?

9. What is the pulmonary artery divided into?

10. What functions does the cardiovascular system perform?

**Task 5: Fill in a crossword.**

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| **Across** | **Down** |
| 3. The right and left sides of the heart are divided by a ...  | 1. The smallest blood vessel is a … |
| 4. The largest blood vessel leaving the heart is the … | 2. A ... provides blood flow in one direction. |
| 5. The systemic circulation finishes in … | 6. The protein that carries oxygen is … |
| 8. The … is a muscle organ. | 7. The pulmonary circulation begins with … |

**Task 6: Complete the sentences.**

|  |  |
| --- | --- |
| 1) The cardiovascular system is made up of | a) divided into arteries, capillaries and veins. |
| 2) The venules unite | b) four chambers — two atria and two ventricles. |
| 3) From the right atrium blood passes into the right ventricle | c) the right atrium. |
| 4) Рulmonary circulation begins with | d) divided into the left and right pulmonary arteries. |
| 5) There are four valves in the heart | e) the blood gives up the waste carbon dioxide. |
| 6) The heart consists of | f) the heart, blood vessels and blood. |
| 7) The aorta divides into | g) the left atrium. |
| 8) The systemic circulation finishes in | h) arteries, arterioles. |
| 9) The pulmonary artery is | i) aortic, pulmonary, tricuspid and mitral valves |
| 10) Blood vessels are | j) through the tricuspid valve  |
| 11) In the lungs | k) the right ventricle. |
| 12) Pulmonary circulation finishes in | l) together to form veins. |

**Task 7: Complete the sentences: (variants are possible).**

1. The cardiovascular system is made …
2. Blood vesselsare divided…
3. The heart pumps …
4. The heart consists …
5. The aorta is …
6. Blood is ejected into the aorta due to …
7. The pulmonary circulation begins …
8. Hemoglobin is …
9. Blood circulation helps …
10. Carbon dioxide gets back …

**PART 3: LEARN TO SPEAK MEDICAL ENGLISH.**

**Task 1: Make up sentences, having put word in the correct order:**

1. within, is, an, hollow, inner, the, organ, placed, heart, the, chest, muscular.

2. septum, heart, of, two, the, separate, consists, divided, chambers, by, the.

3. parts, has, chambers, atria, and, the, each, connected, of, ventricles, two.

6. is, hemoglobin, blood, in, your, attaching to, moved, oxygen, by, a protein, called.

7. the, gives up, the, carbon dioxide, the, lungs, in, waste, blood.

8. one of, the, functions, of the, exchange, of, is, gases, the, most, cardiovascular system, important.

9. circulatory system, our, a normal, the, maintain, body, temperature.

10. urinary system, from, blood, waste, eliminates, products, through, the, body.

**Task 2: Choose the proper words given below and fill in the gaps.**

*atrium, blood, capillaries, fluid, heart, lungs, pump, side, systemic(2), tissues, ventricle, vessels, consists of, carrying, supplied, millimeter, pulmonary*

1. The human cardiovascular system \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the heart, blood vessels and blood.

2. The \_\_\_\_\_\_\_\_\_\_\_\_\_ is a muscular organ lying slightly to the left of the middle of the chest between two \_\_\_\_\_\_\_\_\_\_\_\_\_.

3. The heart works like a \_\_\_\_\_\_\_\_\_\_.

4. Blood passing through heart gets into \_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_ circulation. 5. The right side of the heart, consisting of the right atrium and the right ventricle, pumps\_\_\_\_\_\_\_\_\_\_\_\_\_ into the lungs.

5. The left side, consisting of the left \_\_\_\_\_\_\_\_\_\_ and left \_\_\_\_\_\_\_\_\_\_\_\_, pumps blood throughout the body.

6. The \_\_\_\_\_\_\_\_\_\_\_\_\_ circulation is much bigger, so the left \_\_\_\_\_\_\_\_\_\_\_\_\_ of the heart is stronger and thicker than is the right one.

7. There are three kinds of blood \_\_\_\_\_\_\_\_\_\_\_\_\_: arteries, veins, and capillaries.

8. Arteries are vessels \_\_\_\_\_\_\_\_\_\_\_\_\_ blood away from the heart.

9. Veins are vessels carrying blood from \_\_\_\_\_\_\_\_\_\_\_\_\_ to the heart.

10. The blood vessels are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ with nerves.

11. \_\_\_\_\_\_\_\_\_\_\_\_\_ are tiny vessels which connect the smallest arteries and veins.

12. In capillaries blood is moving along at the rate half a \_\_\_\_\_\_\_\_\_\_ per second.

13. Blood is \_\_\_\_\_\_\_\_\_\_\_\_\_ circulating through the heart, arteries, capillaries, and veins.

**Task 3: Insert prepositions where necessary:**

*Into(2), through(2), with, of, from(2), in(3), by*

1. The heart is divided … four chambers: the left and right atria, and the left and right ventricles.

2. Blood vessels are divided … arteries, capillaries and veins.

3. The heart is a muscular organ located … the chest cavity

4. The systemic circulation begins … the largest artery - the aorta.

5. From the right ventricle blood enters the lungs … the pulmonary artery.

6. ... the lungs oxygenated blood is carried in the pulmonary vein to the left atrium.

7. The exchange of gases is one of the most important functions … the cardiovascular system.

8. Oxygen is moved … your blood … attaching to a protein called hemoglobin.

9. Oxygen moves … the blood into the tissues, while carbon dioxide travels … the opposite direction.

10. Blood eliminates waste products from the body … the urinary system.

**Task 4: Open the brackets put the verb in the correct form.**

1. Your cardiovascular system (to have) many functions.
2. It (to act) as a message delivery service, as a pump, as a heating system, and as a protector of the body against diseases.
3. To do these tasks your cardiovascular system (to work) with other organ systems, such as the respiratory, lymphatic, endocrine, and nervous systems.
4. The lymphatic system (to be) a network of vessels and tissues that (to carry) clean fluid called lymph.
5. Lymph vessels (to be) tube-shaped, just like blood vessels.
6. The lymphatic system (to work) with the cardiovascular system (to return) body fluids to the blood.
7. Blood vessels can (to leak) just like any other pipe.
8. The lymphatic system (to make) sure leaked blood (return) back to the bloodstream.
9. When a small amount of fluid (to leak) out from the blood vessels, it is collected in the spaces between cells and tissues.
10. Some of the fluid (to return) to the cardiovascular system, and the rest is collected by the lymph vessels of the lymphatic system.
11. Unlike the cardiovascular system, the lymphatic system is not closed and (to have) no central pump.
12. Lymph (to move) slowly in lymph vessels.

**Task 5: Describe the cardiovascular system.**



**KEYS TO THE TASKS**

**PART 1**

**Task 2: Sign the parts of the heart shown in the figure**

1. right atrium 2. superior vena cava 3. aorta 4. left atrium 5. mitral valve 6. left ventricle 7. right ventricle 8. inferior vena cava 9. tricuspid valve

**Task 3: Make words by putting letters in the correct order.**

1. Ventricle – желудочек 2. Vessel – сосуд 3. Atrium – предсердие 4. Hemoglobin – гемоглобин 5. Pulmonary – легочная 6. Cavity – полость 7. Venous - венозный 8. Tricuspid – трехстворчатый 9. Aorta - аорта 10. Maintain - поддерживать

**Task 4: Find the words**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **V** | **e** | **n** | **t** | **r** | **i** | **c** | **l** | **e** | **a** |
| **m** |  | **b** |  |  | **s** | **a** |  | **h** | **t** |
| **i** |  | **l** |  |  | **e** | **v** |  | **e** | **r** |
| **t** |  | **o** |  |  | **p** | **i** |  | **a** | **i** |
| **r** |  | **o** |  |  | **t** | **t** |  | **r** | **u** |
| **a** |  | **d** |  |  | **u** | **y** |  | **t** | **m** |
| **l** |  |  |  |  | **m** | **p** | **u** | **m** | **p** |
| **h** | **e** | **m** | **o** | **g** | **l** | **o** | **b** | **i** | **n** |

**Task 5: Fill in the diagram.**

|  |  |  |
| --- | --- | --- |
| NOUNS | VERB | ADJECTIVE |
| cavity | eliminate | mitral |
| hemoglobin | supply | venous |
| valvе | eject  | superior  |
| chamber | maintain  | tricuspid |
| tissue | divide | beneficial |
| ventricle | begin | inferior  |

**Task 6: Complete the sentences.**

1. chambers 2. atria, ventricles 3. cavity 4. valves 5. pump 6. arterioles, venules 7. capillaries, vessels 8. beneficial substance 9. hemoglobin 10. carbon dioxide

**PART 2**

**Task 2: Find in the text English equivalents for these words and word combinations.**

1 cardiovascular system; 2 blood vessels; 3 divided into; 4 muscular organ; 5 atrium; 6 inferior vena cava; 7 mitral valvе; 8 blood is ejected; 9 passes through; 10 left and right pulmonary arteries; 11 give up the waste carbon dioxide; 12 the tricuspid valve; 13 the movement of gases; 14 attaching to the protein; 15 maintain a normal temperature; 16 eliminate waste products;

17 beneficial substances;

**Task 3: Are these statements correct or false? Correct the statement, if it is false:**

1. Т
2. F (The systemic circulation supplies the upper and lower extremities, head, trunk, all internal organs with blood.)
3. T
4. F (The systemic circulation finishes in the right atrium.)
5. T
6. T
7. F (The pulmonary circulation begins with the right ventricle.)
8. F (The pulmonary artery is divided into the left and right pulmonary arteries.)
9. T

**Task 4: Answer the questions.**

1. The cardiovascular system consists of the heart, blood vessels and blood.

2. The heart consists of four chambers — two atria and two ventricles.

3. There are four valves in the heart are: aortic, pulmonary, tricuspid and mitral valves.

4. The systemic circulation begins wiyh the left ventricle.

5. The systemic circulation ends in the right atrium.

6. The systemic circulation supplies the upper and lower extremities, head, trunk, all internal organs with blood

7. The pulmonary circulation begins with the right ventricle

8. The pulmonary circulation ends in the left ventricle.

9. The pulmonary artery is divided into the right and left pulmonary arteries.

10. The cardiovascular system performs different functions: the movement of gases, maintaining of the normal body temperature and transporting of nutrients, minerals and vitamins.

**Task 5: Fill in a crossword.**

1. capillary 2. valve 3. septum 4. aorta 5. atrium 6. hemoglobin7. ventricle8. heart

**Task 6: Complete the sentences.**

1-f 2-l 3-j 4-k 5-i 6-b 7-h 8-c 9-d 10-a 11-e 12-g

**Task 7: Complete the sentences:**

1. The cardiovascular system is made up of the heart, blood vessels and blood.

2. Blood vessels are divided into arteries, capillaries and veins.

3. The heart pumps 4-5 liters of blood in one minute.

4. The heart consists of four chambers — two atria and two ventricles.

5. The aorta is the largest artery.

6. Вlood is ejected into the aorta due to the contraction of the left ventricle of the heart.

7. Рulmonary circulation begins in the right ventricle.

8. Hemoglobin is a protein for oxygen transport.

9. Blood circulation helps maintain a constant body temperature.

10. Carbon dioxide gets back to the lungs, where it moves out of the blood and leaves your body.

**PART 3**

**Task 1: Make up sentences, having put words in the correct order.**

1. The heart is an inner hollow muscular organ placed within the chest.
2. The heart consists of two separate chambers divided by the septum.
3. Each of the chambers has two connected parts: atria and ventricles.
4. Oxygen is moved in your blood by attaching to a protein called hemoglobin.
5. In the lungs blood gives up the waste carbon dioxide.
6. The exchange of gases is one of the most important functions of the cardiovascular system.
7. The circulatory system helps our body to maintain a normal temperature.
8. Blood eliminates waste products from body through the urinary system.

**Task 2: Choose the proper words given below and fill in the gaps.**

1. The human cardiovascular system **consists of** the heart, blood vessels and blood.

2. The **heart** is a muscular organ lying slightly to the left of the middle of the chest between two **lungs**.

3. The heart works like a **pump**.

4. Blood passing through heart gets into the **pulmonary** and **systemic** circulation.

5. The right side of the heart, consisting of the right atrium and the right ventricle, pumps **blood** into the lungs.

6. The left side, consisting of the left **atrium** and left **ventricle** pumos blood throughout the body.

7. The **systemic** circulation is much larger, so the left **side** of the heart is stronger and thicker than the right one.

8. There are three kinds of blood **vessels**: arteries, veins, and capillaries.

9. Arteries are vessels **carrying** blood away from the heart.

10. Veins are vessels carrying blood from the **tissues** to the heart.

11. The blood vessels are **supplied** with nerves.

12. **Capillaries** are tiny vessels which connect the smallest arteries and veins.

13. In capillaries blood is moving along at the rate half a millimeter per second.

14. Blood is **fluid** circulating through the heart, arteries, capillaries, and veins.

**Task 3: Insert prepositions where necessary.**

1. Into 2. Into 3.In 4.With 5.Through 6.From 7.Of 8.In, by 9.From, in 10. Through .

**Task 4:**

1. Has 2. Acts 3. Works 4.Is, carries 5. Are, 6. Works, to return 7. Leak 8. Makes, returns 9. Leaks 10. Returns 11. Has 12.Moves.

**SELF-CHECK TEST**

1. **Fill in the right letter.**
2. atri…m
3. s…pply
4. e…ect
5. hem…globin
6. p…lmonary
7. d…oxide
8. he…rt
9. t…ssue
10. cardiovasc…lar
11. respir…tory

**2. Make up English-Russian pairs of words:**

|  |  |
| --- | --- |
| 1. chest | A. малый круг кровообращения |
| 2. inferior vena cava | B. камера |
| 3. valve | C. капиляр |
| 4. cavity | D. снабжать |
| 5. pulmonary circulation | E. грудная клетка |
| 6. supply | F. поддерживать |
| 7. eliminate | G. полость |
| 8. chamber | H. нижняя полая вена |
| 9. maintain | I. клапан |
| 10. capillary | J. удалять |

**3. Match the words from (A) and (B) in a logical way:**

|  |  |
| --- | --- |
| **a** | **b** |
| 1. The cardiovascular system has | a. and breathe out carbon dioxide |
| 2. The cardiovascular system consists of | b. works together with the respiratory, endocrine, and nervous systems |
| 3. It transports | c. to a protein called hemoglobin |
| 4. To do these tasks, your cardiovascular system | d. the heart, blood vessels and blood |
| 5. You breathe in oxygen | e. a muscular organ  |
| 6. Oxygen is moved in your blood by attaching | f. blood through the blood vessels |
| 7. The heart is | g. many functions |
| 8. The cardiac muscle contracts and pumps | h. four chambers |
| 9. The heart is divided into | i. tricuspid, mitral, pulmonary and aoric valves |
| 10. There are four valves of the heart: | j. nutrients, hormones, gases and wastes  |

**4. Match the words to make words combinations:**

1) divided, passes, blood, muscular, mitral, cardiovascular, carbon, beneficial, normal, movement

2) temperature, of gases, system , substances, dioxide, vessels, through, organ, into, valvе

**5. Put the words in the right order to make a sentence**

1. blood, cardiovascular, heart, and, the, blood, includes, vessels, system, the.

2. main, veins, blood, the, are, of, capillaries, in, arteries, vessels, body, types, there, three, and.

3. circulation, the, from, heart, oxygen-rich, away, blood, carries, systemic.

4. circulation, from, pulmonary, oxygen-poor, the, heart, to, away, the, lungs, carries, blood.

5. the, par,t are, the, an, blood, of, vessels, cardiovascular, important, system.

6. the, the, chambers, atria, ventricles, right, divided, is, into, left, and, and, the, left, four, and, right, heart.

7. by, cell, needed, your, is, body, every, in, oxygen.

**6. Finish the sentences.**

*1. The heart consists of chambers:*

a. two

b. three

c. four

d. five

*2. The systemic circulation begins with…*

a. left ventricle

b. left atrium

c. right atrium

d. right ventricle

*3. The pulmonary circulation begins with…*

a. left ventricle

b. left atrium

c. right atrium

d. right ventricle

*4. The heart is located…*

a. in the left half of the chest;

b. in the center of the chest;

c. in the right half of the chest

*5. Eachf blood circulation begins with ...*

a. only from the left ventricle

b. tissues and internal organs

*6. These biggest veins are called …vena cava*

a. left and right

b. the superior and inferior

c. back and front

*7. The protein that moves oxygen is called ...*

a. hemoglobin

b. erythrocyte

c. thrombocyte

*8. The cardiovascular system consists of ...*

a. the heart, arteries, blood

b. the heart, blood, blood vessels

c. the heart, chambers, vessels

*9. The systemic circulation ends in …*

a. right atrium

b. right ventricle

c. left atrium

*10. The pulmonary circulation ends in …*

a. right atrium

b. right ventricle

c. left atrium

c. atria or in the ventricle

d. one of the ventricles

**7. Complete the sentences by translating parts in the brackets. (Variants are possible)**

1. The cardiovascular system (образована) of the heart, blood vessels and blood.

2. The heart (располагаться) in the chest cavity.

3. The heart (состоять) four chambers – two atria and two ventricles.

4. (Располагаться) four valves in the heart tricuspid, mitral, pulmonary and aortic valves.

5. Systemic circulation (обеспечивать) the upper and lower extremities, head, trunk, all internal organs.

6. The venules (соединяться вместе) to form veins.

7. The pulmonary artery is (делиться на) the left and right pulmonary arteries.

8. Oxygen (перемещаться) in your blood by attaching to a protein called hemoglobin.

9. In the lungs the blood (отдавать) the waste carbon dioxide it is carrying and takes in fresh oxygen.

10. With the help of the circulatory system beneficial substances, vitamins and minerals (переноситься) to each cell of the body.

**8. Insert prepositions where necessary.**

*by(2), of(2), into, through, up, in, from, within*

1. The heart is a muscular organ placed \_\_\_\_\_ the chest.

2. The heart consists \_\_\_\_\_ two separate chambers divided \_\_\_\_\_ the septum.

3. Each \_\_\_\_\_ the chambers has two connected parts: the atrium and the ventricle.

4. Oxygen is moved \_\_\_\_\_ your blood \_\_\_\_\_ attaching to a protein called hemoglobin.

5. In the lungs the blood gives \_\_\_\_\_ the waste carbon dioxide.

6. Blood eliminates waste products \_\_\_\_\_ body through the urinary system.

7. The pulmonary artery is divided \_\_\_\_\_ the left and right pulmonary arteries.

8. Blood is fluid circulating \_\_\_\_\_ arteries, capillaries, and veins.

**KEYS TO SELF-CHECK TEST**

**1. Fill in the right letter.**

1. atria

2. supply

3. eject

4. hemoglobin

5. pulmonary

6. dioxide

7. heart

8. tissue

9. cardiovascular

10. respiratory

**2. Make up English-Russian pairs of words:**

1.Е 2.H 3.I 4. G 5.А 6.D 7.J 8.B 9.F 10.С

**3.Match the words from (A) and (B) in a logical way:**

1. g 2. d 3. j 4. b 5. a 6. c 7. e 8. f 9. h 10. i

**4. Match the words to make words combinations:**

divided into, passes through, blood vessels, muscular organ, mitral valvе, cardiovascular system, carbon dioxide, beneficial substances, normal temperature, movement of gases

**5. Put the words in the right order to make a sentence**

1. The cardiovascular system includes the heart, the blood vessels, and the blood.

2. There are three main types of blood vessels in the body: arteries, veins, and capillaries.

3. Systemic circulation carries oxygen-rich blood away from the heart.

4. Pulmonary circulation carries oxygen-poor blood away from the heart to the lungs.

5. The blood vessels are an important part of the cardiovascular system.

6. The heart is divided into four chambers, the left and right atria and the left and right ventricles.

7. Oxygen is needed by every cell in your body.

**6. Answer the questions: (Choose the correct answer.)**

1. C 2. A 3.D 4.A 5.D 6.B 7.A 8. B 9.A 10. C

**7. Complete the sentences by translating parts in the brackets.**

1. The cardiovascular system is **made** up of the heart, blood vessels and blood.

2. The heart is **located** in the chest cavity.

3. The heart **consists of** four chambers – two atria and two ventricles.

4. **There are** four valves in the heart: tricuspid and mitral valves, pulmonary and aortic valves.

5. Systemic circulation **supplies** the upper and lower extremities, head, trunk, all internal organs.

6. The venules **unitetogether** to form veins.

7. The pulmonary artery is **divided into** the left and right pulmonary arteries.

8. Oxygen is **moved** in your blood by attaching to a protein called hemoglobin.

9. In the lungs the blood **gives** up the waste carbon dioxide it is carrying and takes in fresh oxygen.

10. With the help of the circulatory system beneficial substances, vitamins and minerals are **carried** to each cell of the body.

**8. Insert prepositions where necessary.**

1. within 2. of, by 3. of 4. in, by 5. up 6. from 7. into 8.. through

|  |  |
| --- | --- |
| **Points:** | «5» - 90% - 100% - 90 - 81points |
| Maximum: 90 points | «4» - 89% - 80% - 80– 71points |
|  | «3» - 79% - 70% - 70 -61points |
| **Task number** | **Evaluation** |
| № 1 | 1 point |
| **maximum:** | **10 points** |
| № 2 | 1 point |
| **maximum:** | **10 points** |
| № 3 | 1 point |
| **maximum:** | **10 points** |
| № 4 | 1 point |
| **maximum:** | **10 points** |
| № 5 | 2point |
| **maximum:** | **14 points** |
| № 6 | 1 points |
| **maximum:** | **10 points** |
| № 7 | 1 points |
| **maximum:** | **10 points** |
| № 8 | 2points |
| **maximum:** | **16 points** |

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