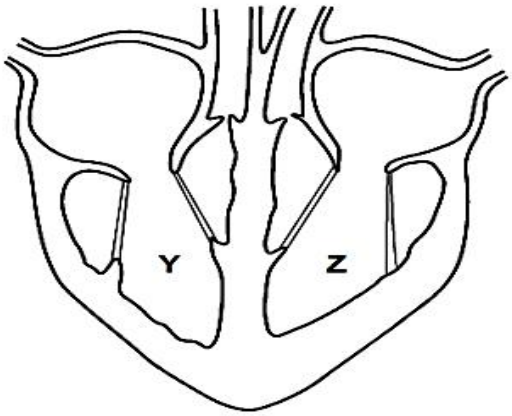
Ombiology Activities

Assignment

Human Heart



AHMED OMAAR

Name: …… School: ……

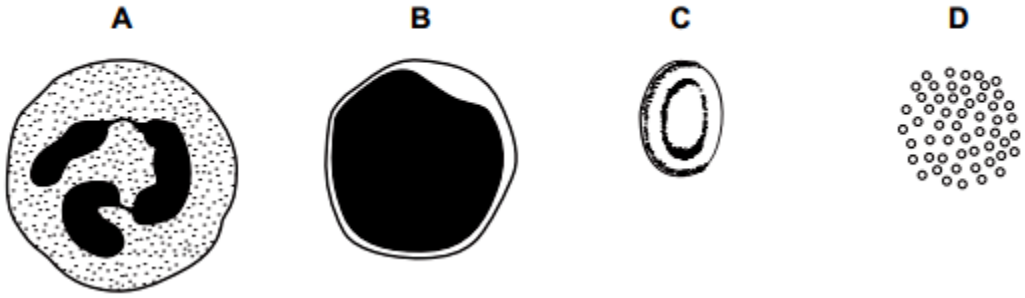
Class: …… Academic Year:

Section A: Multiple Choice Questions

For each question in this section, circle the correct answer

1. The blood plasma without the clothing factor is called
   A. Sebum
   B. Hemoglobin
   C. Serum
   D. septum
2. From which chamber of the heart does blood leave to go to the lungs?
   A. Right atrium
   B. Left atrium
   C. Right ventricle
   D. Left ventricle
3. The diagrams show some components of the blood of a mammal

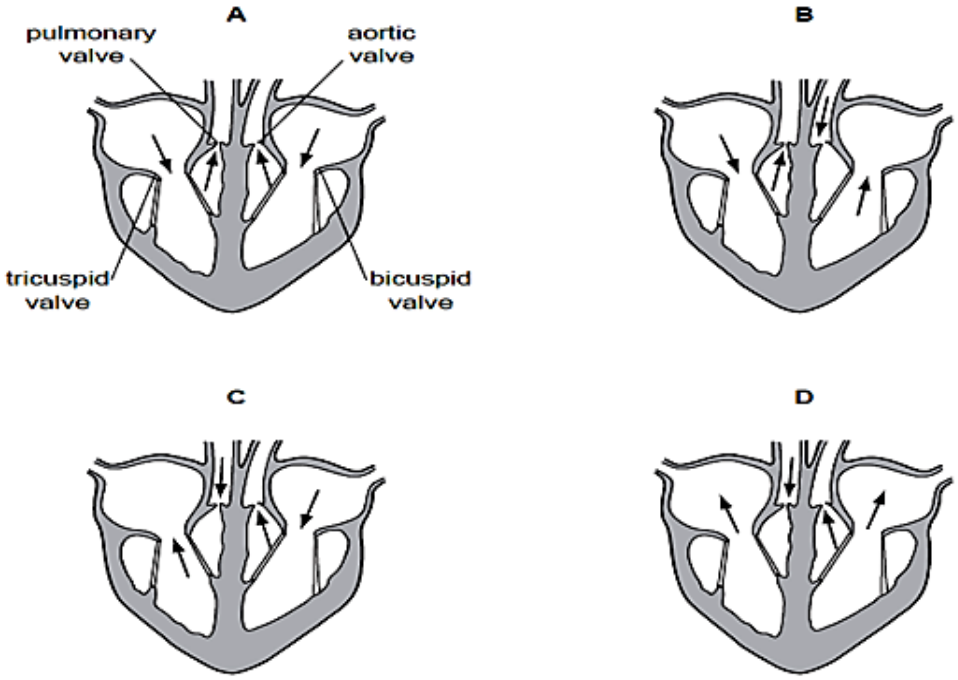
   Which component causes the blood to start clotting?



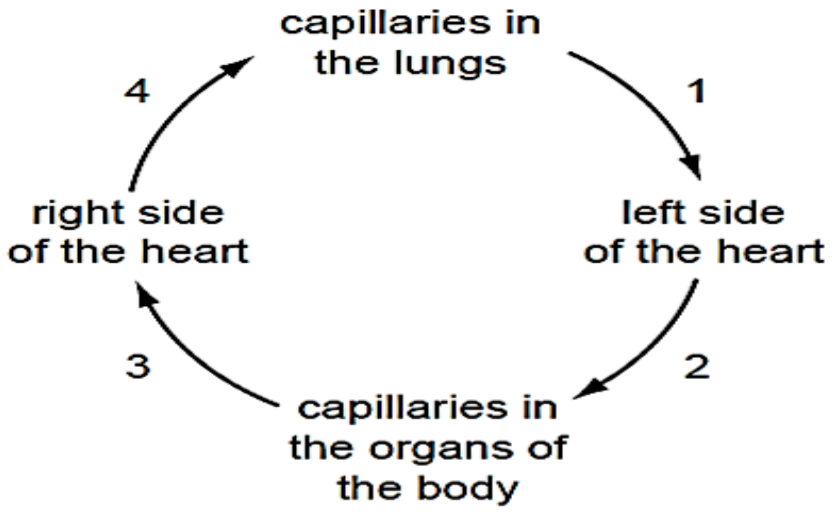
4. While oxygen is carried by red blood cells, most of the carbon dioxide is carried by the
   A. White blood cells
   B. Phagocyte cells
   C. Blood plasma
   D. Lymphocytes
5. Which valve prevents blood flowing back into the left atrium from the left ventricle?
   A. Aortic valve
   B. Tricuspid valve
   C. Bicuspid valve
   D. Semi-lunar valves
6. Oxygen moves into the tissue as the blood is flowing through
   A. Veins
   B. Arteries
   C. Capillaries
   D. Arteries and veins

7. What effect does adrenaline have on the heart?
   A. It increases the heart rate only
   B. It increases the stroke volume only
   C. It decreases the blood pressure only
   D. It increases the heart rate and stroke volume
8. In coronary heart disease, what are the fatty deposits on the walls of the arteries called?
   A. Platelets
   B. Plasma
   C. Plough
   D. Plaques
9. In the circulatory system, which is correct
   A. Left ventricle, semi-lunar valve, pulmonary artery, lungs
   B. Right ventricle, semi-lunar valve, pulmonary vein, lungs
   C. Left ventricle semi-lunar valve, pulmonary vein, lungs
   D. Right ventricle, semi-lunar valve, pulmonary artery, lungs
10. The other name for bicuspid valve is the
   A. Vitral
   B. Bitral
   C. Mitral
   D. Pitral
11. The highest blood pressure is found in the
   A. Venules
   B. Arteries
   C. Aorta
   D. Veins
12. Walls are thickest in the
   A. Right atrium
   B. Left atrium
   C. Right ventricle
   D. Left ventricle
13. Which circulation carries oxygenated blood to the body
   A. Muscular
   B. Bodily
   C. Systemic
   D. Pulmonary
14. Cardiac muscles are
   A. Striated and voluntary
   B. Striated and involuntary
   C. Smooth and involuntary
   D. Smooth and involuntary

15. The diagrams below are about sections through human hearts. Which diagram has the correct arrows showing the direction of blood flow passing through the heart valves?



16. The diagram shows the direction of blood flow in the human body.



Which numbered stages have blood containing the most oxygen?

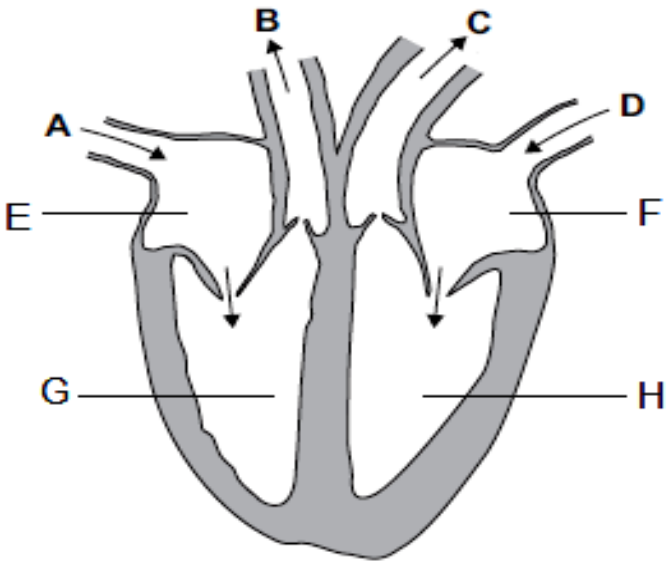
A. 2 and 3
B. 1 and 2
C. 4 and 1
D. 3 and 4

Section B: Structured Questions

Answer all the questions below as fully as possible.

Question 1

The below diagram shows a section through the human heart



(a) Name the structures labeled **E , F, G** and **H** on the above diagram

E …… F ……..

G …… G …… H …….

(b) The heart is part of the circulatory system.

(i) Name one substance transported by the blood in the circulatory system

……

(ii) What is the main type of tissue in the heart wall?

……

(c) Give one reason why the wall of the structure '**H**' is thicker than structure '**G**'

……..

(d) Suggest how the blood flowing through blood vessel **'B'** would be different from the blood flowing through the blood vessel '**C**'

……

(e)

The tissue in the wall of the heart contracts.

(i) What type of tissue is this?

Tick (✓) **one** box.

muscular ☐

glandular ☐

epithelial ☐

(ii) What does the heart do when this tissue contracts?

_____

(f)

(i) Which arrow, **A**, **B**, **C** or **D**, shows blood leaving the heart in the pulmonary artery to go to the lungs? ☐

(ii) Which arrow, **A**, **B**, **C** or **D**, shows blood from the lungs entering the heart in the pulmonary vein? ☐

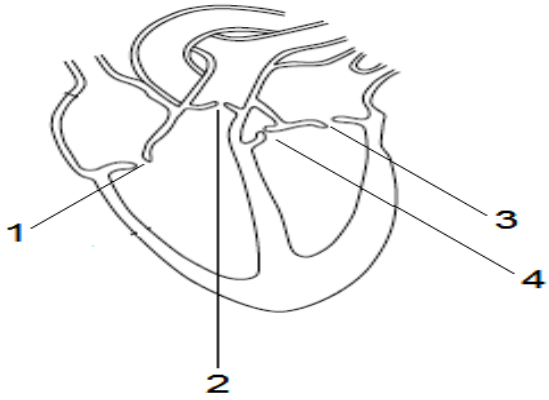
(iii) Valves in the circulatory system make sure blood only travels in one direction.

Name the type of blood vessel that has valves.

_____

Question 2

The below diagram shows a section through human heart



(a) Complete the table by placing ticks in the appropriate boxes to show which of valves **1** to **4** will open and which closed at time of ejecting blood out of the heart.

Valve	Open	Closed
1		
2		
3		
4		

Question 3:

I. List any four functions of the blood?

.....
.....
.....
.....

II. Compare between open circulatory system and closed circulatory system with examples?

.....
.....
.....
.....

Question 4:

(b) The diagrams show the left side of the heart at two stages in a cardiac cycle.

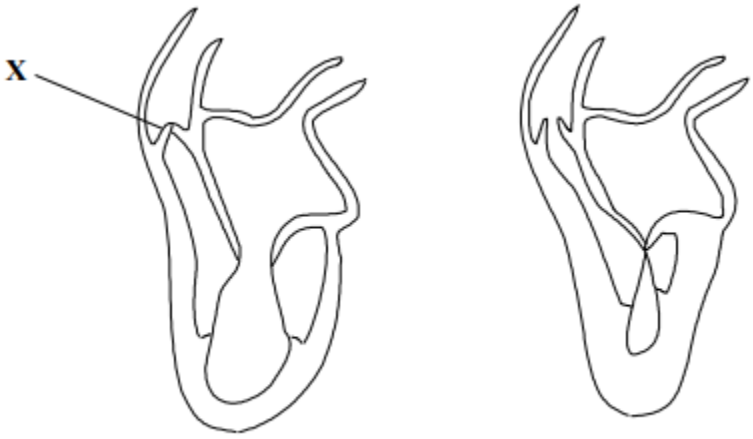


Diagram **A** Diagram **B**

(i) Name the structure labeled **X**

……

(ii) Describe two pieces of evidence in Diagram **B,** which indicate that the ventricle is emptying

……

……

(iii) Identify the role of labeled structure **X**

……

Question 5:

The left ventricle is thicker than the right ventricle of the heart.

a. Explain why does the left ventricle is thicker than the right ventricle?

……

……

……..

b. The heart is considered to be myogenic. Explain why so?

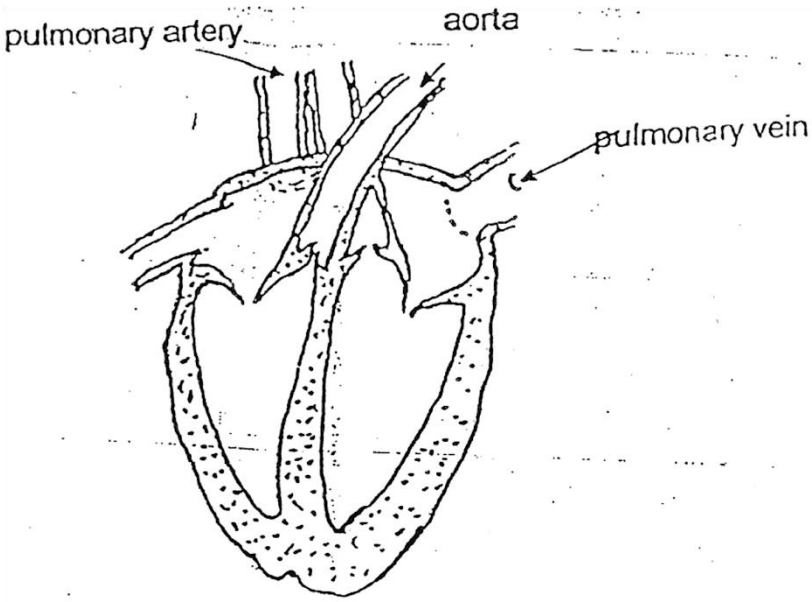
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Question 6:

The diagram below shows a cross section of the heart.



a) Using arrows draw on the diagram to show the passage of oxygenated blood toward the body.

b) The heart pumps the blood through two circulatory systems. The pulmonary and the systematic systems. What is main difference between these two systems?

……

……

c) Give the general name to a structure that stops the blood flowing in the wrong direction.

.....

d) In the diagram, clearly label the position of one of these structures, using the letter **A**.

e) On the diagram, mark with an **X** the place where the returning blood from the body enters the heart. What is the name given to the blood vessel that returns the blood from the body to the heart?

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