

BIOLOGY

BOOKS - EVERGREEN BIOLOGY (ENGLISH)

CIRCULATORY SYSTEM

Review Question

1. Define the following:

Diapedesis



2. Define the following:

Thrombosis



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3. Define the following:

Pacemaker



4. Define the following:

Systole



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5. Define the following:

Haemophilia



6. Define the following:

Leucopenia



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7. Define the following:

The mineral element essential for the clotting of blood



8. Enumerate various steps involved in blood clotting.



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9. Name the arteries that supply blood to the nearest organ, kidney and liver.



10. What do you mean by portal vein and portal system?



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11. What is the need of a hepatic portal system?



12. Differentiate between the following pairs on the basis of what is indicated within the brackets:

Artery and vein (direction of blood flow)



- 13. Write the differences between:
- (a) Blood and Lymph
- (b) Open and Closed system of circulation

(c) Systole and Diastole (d) P-wave and T-wave **Watch Video Solution 14.** Define the following: **Thrombosis Watch Video Solution** 15. Differentiate between Pulmonary and Systemic circulation



16. Differentiate between Erythrocytes and leucocytes of mammals



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17. Mark the odd one in each series:

RBC, WBC: platelets, cartilage.



18. Tabulate differences between:

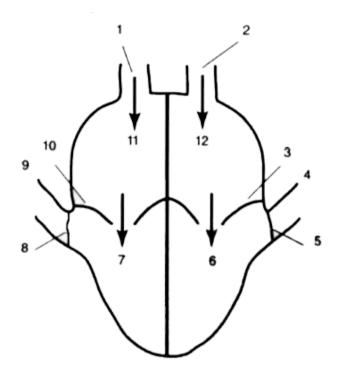
LUBB and DUP (Names of valves whose closure produce sound



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19. The given diagram is highly diagrammatic representation of mammalian heart. In this diagram

Name the parts marked 1-12.





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20. The given diagram is highly diagrammatic representation of mammalian heart. In this

diagram

(##EVR ANM ICSE BIO X CO7 E01_020_Q01.png"

width="80%">

What do the arrows indicate?



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21. The given diagram is highly diagrammatic representation of mammalian heart. In this diagram (##EVR_ANM_ICSE_BIO_X_C07_E01_021_Q01.png"

width="80%">

Name the valves that guard openings in the heart.



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22. The given diagram is highly diagrammatic representation of mammalian heart. In this diagram

(##EVR_ANM_ICSE_BIO_X_C07_E01_022_Q01.png" width="80%">

From where do the parts numbered 1- 6 receive blood?

23. Where is SAN located and what is its function?



24. Where does a body weigh more – at the surface of the earth or in a mine?



25. Which of the following is an anticoagulant and checks blood coagulation in blood vessels ?



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26. Explain :

Universal recipient



27. Which is the correct sequence of arrangement of types of WBC in decreasing order term of number per mm^3 of human blood?



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28. Fill in the blanks:

............ , And Enter the right auricle

whereas enters the left auricle.



29. Fill in the blanks .	
(i) Deletions and insertions of base pair o	f
DNA causes	
(ii) A classical examples of point mutation is	5
·	



30. Fill in the blanks:

.....leaves the left ventricle.



31. Bicuspid valve is present between



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32. Leukocytes can squeeze out of blood capillaries. This process is called



33. Fill in the blanks:

..... vein is that which starts as well as terminates as capillaries.



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34. Fill in the blanks:

Largest (in number) WBCs in the blood are

•••••



35. The largest RBC's have been seen in



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36. Fill in the blanks:

The blood vessel that begins and ends in capillaries is the.....



37. Fill in the blanks:

Oxygen combines with haemoglobin resent in

RBC and forms



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38. Find the odd one out:

Haemoglobin, prothrombin, fibrinogen and thrombokinase.



Hepatic artery, renal artery, coronary artery and pulmonary arteries,



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40. Find the odd one out :

Renal vein, hepatic vein, mesenteric and hepati portal vein.



Superior vena cava inferior vena cava, coronary
Sinus and pulmonary veins,



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42. Find the odd one out:

Bicuspid valve SAN A-V node and bundle of His



Thick walled narrow lumen, muscular walls and Semilunar valves presont.



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44. Find the odd one out:

Monocytes, lymphocytes, erythrocytes and basophils



Transportation of digested food. Excretory products. hormones and oxygen.



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46. Find the odd one out:

Bicuspid valve most thick-walled receives exygenated blood and beginning of pulmonary arch



Thin walled, wide lumen, collapsible and valves absent



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48. Lumen, muscular tissue, connective tissue, pericardium



49. Assertion: The process of clotting can occur in absence of all cellular elements except platelets

Reason: Vitamin K is essential for blood clotting.



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50. Erythropoiesis starts in



51. Name the following:

The vein that carries oxygenated blood.



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52. Name the following:

The valve present in the opening of inferior vena cava



53. Rh factor was discovered by



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54. Name the following:

The scientist who identified different types of blood groups......



55. Name the type of cells that produce antibodies.



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56. Name the following:

The gas that reduces oxygen carrying capacity of the blood.



57. Name the vitamin which is vital for the clotting of blood?



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58. The duration of cardiac cycle in a normal man is



59. Name the following:

The vein which drains the blood from the intestine to the liver



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60. Name the following:

Blood vessels carrying blood to the left atrium



61. Name the following:

The blood vessel which supplies blood to the liver



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62. Name the compound formed by haemoglobin with carbon dioxide.



63. Why is the heartbeat rate equal to the arterial pulse rate?



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64. Explain briefly:

Why are capillaries thin walled?



65. A mature mammalian erythrocyte characteristically has :



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66. Explain briefly:

Pulse.



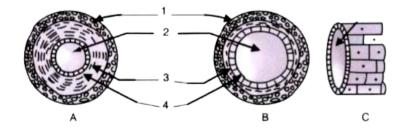
67. Explain briefly:

Blood flows in arteries in spurts and is under pressure



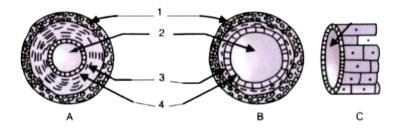
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68. The figures given below are crose-coctions of blood vessels



Identity the blood vessels A B and C.

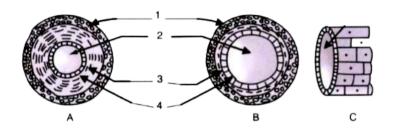
69. The figures given below are crose-coctions of blood vessels



Name the parts labelled 1 – 4.



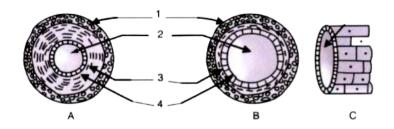
70. The figures given below are cross-sections of blood vessels



Venlion two structural differences between A and b



71. The figures given below are cross-sections of blood vessels

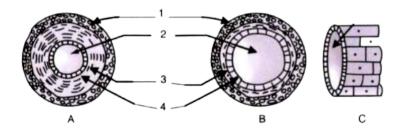


Name the type of blood that flows (a) through A. (B) through b



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72. The figures given below are crose-coctions of blood vessels

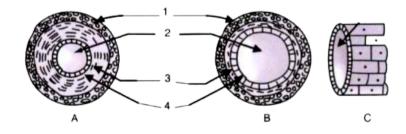


In which of the above vessels referred to in value above Goes Oxchange of gases actually take place?



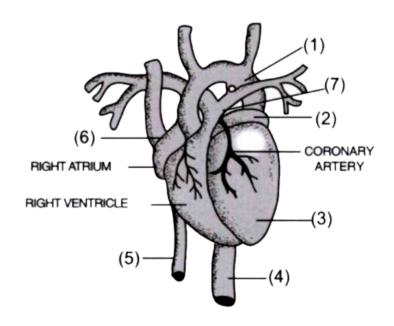
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73. The figures given below are cross-sections of blood vessels



Which category of blood vessels have valves in their inner lining?

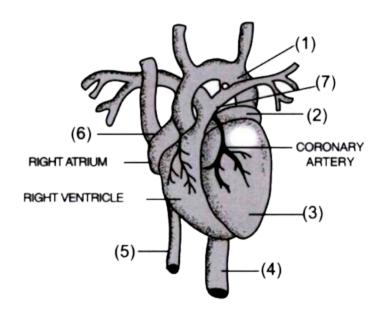
74. Given below is a diagram of the external features of the heart:



Name the parts 1 to 7.



75. Given below is a diagram of the external features of the heart:

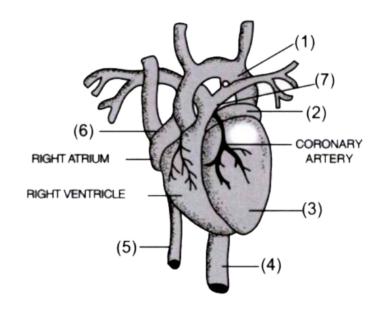


What happens if the coronary artery gets an internal clot?



76. Given below is a diagram of the external

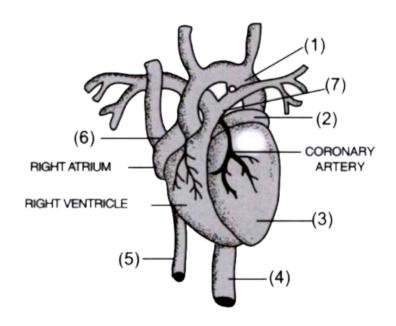
features of the heart:



What type of blood does '5' carry?



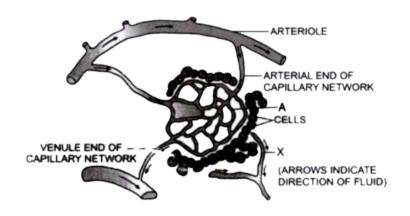
77. Given below is a diagram of the external features of the heart:



Mention one structural difference between 5 and 4



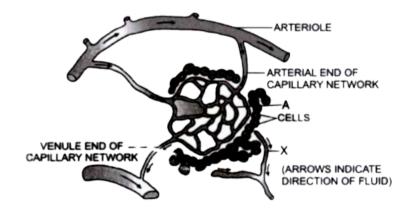
78. The diagram given below shows part of the capillary bed in an organ of the mammalian body. Some of the blood arriving at the capillaries at point labelled A moves out into the spaces between the tissue



When the liquid from the blood surrounds the cells, What is it called ?

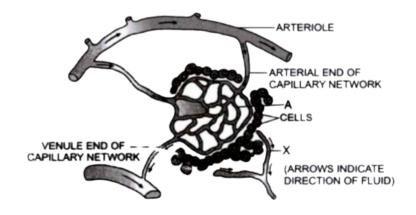


79. The diagram given below shows part of the capillary bed in an organ of the mammalian body. Some of the blood arriving at the capillaries at point labelled A moves out into the spaces between the tissue



Name any one important component of the blood which remains inside the capillaries and fails to move out into the spaces.

80. The diagram given below shows part of the capillary bed in an organ of the mammalian body. Some of the blood arriving at the capillaries at point labelled A moves out into the spaces between the tissue



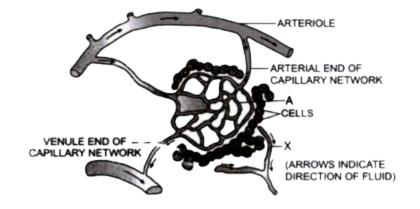
Some of the liquid surrounding the cells does

not pass directly back into the blood but eventually reaches it by another route through vessel X. Name the fluid present in vessel X.



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81. The diagram given below shows part of the capillary bed in an organ of the mammalian body. Some of the blood arriving at the capillaries at point labelled A moves out into the spaces between the tissue

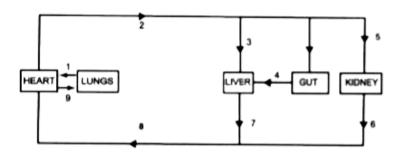


State two important functions performed in our body by the fluid present in vessel X.



82. The following simplified diagram refers to the outline plan of the circulation of blood in a mammal, Study the diagram and write the number and the name of the blood vessel in

each case as mentioned under.

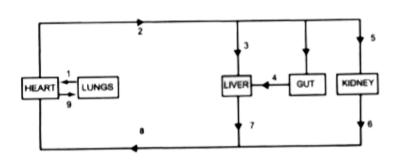


Several hours after a meal containing a lot of protein, which vessel will contain the highest concentration of urea?



83. The following simplified diagram refers to the outline plan of the circulation of blood in

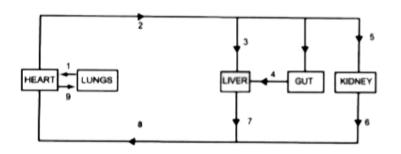
a mammal, Study the diagram and write the number and the name of the blood vessel in each case as mentioned under.



Which vessel contains the highest concentration of amino acids and glucose soon after a meal?



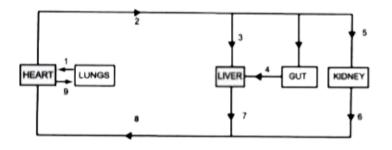
84. The following simplified diagram refers to the outline plan of the circulation of blood in a mammal, Study the diagram and write the number and the name of the blood vessel in each case as mentioned under.



Which vessel begins and ends in capillaries?



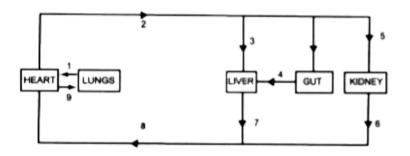
85. The following simplified diagram refers to the outline plan of the circulation of blood in a mammal, Study the diagram and write the number and the name of the blood vessel in each case as mentioned under.



Which vessel will contain the smallest number of red blood cells per unit volume of blood?

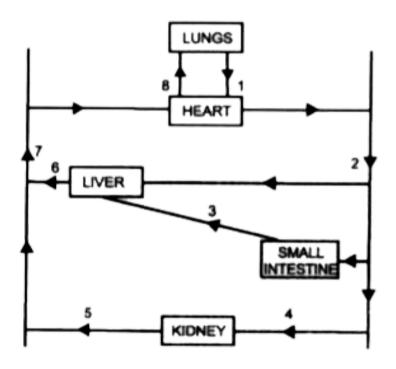


86. The following simplified diagram refers to the outline plan of the circulation of blood in a mammal, Study the diagram and write the number and the name of the blood vessel in each case as mentioned under.



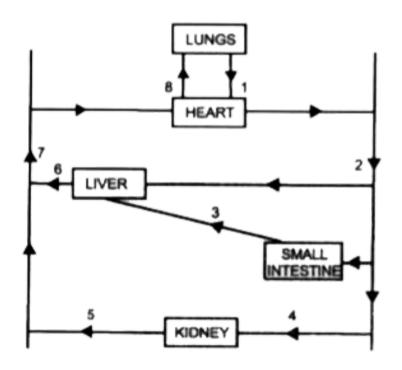
in which vessel will the blood carry the most oxyhaemoglobin





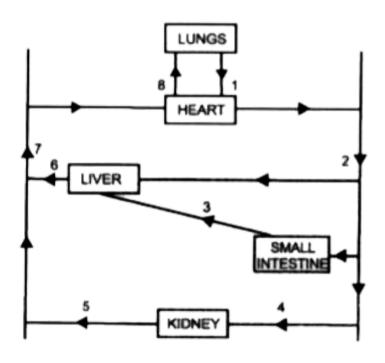
Name the blood vessels labelled 1. 3. 6. and 7.





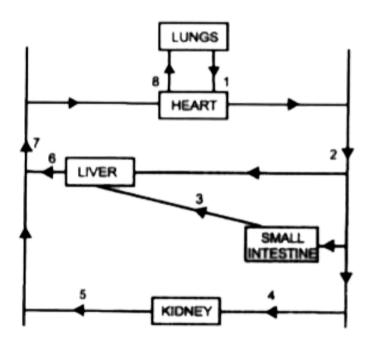
Name the blood vessel that supplies the walls of the heart with oxygen.





Draw a neat labelled diagram of the blood vessel numbered 2' as seen in a cross-section.





Mention one structural difference between blood vessels numbered 4 and 5



91. State main functions of :

Coronary artery



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92. State main functions of :

Thrombocytes



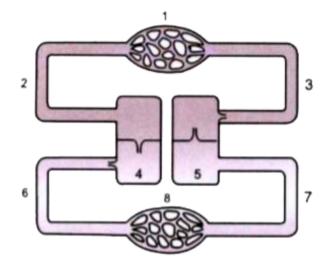
93. State main functions of:

Give the exact location of Mitral valve.



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94. Given below is a simple diagram of the circulation of blood in a mammal showing the main blood vessels, the heart, lungs and body tissues. The

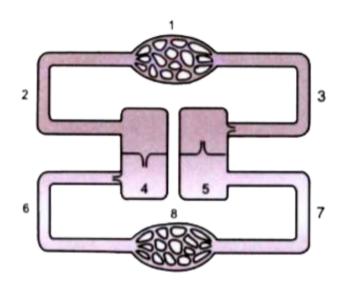


blood vessels, labelled 6, contain deoxygenated blood and the valve leading to it has three semi-lunar pockets

Name the blood vessels or organs marked by numbers 1 to 8



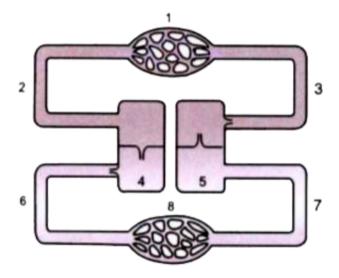
95. Given below is a simple diagram of the circulation of blood in a mammal showing the main blood vessels, the heart, lungs and body tissues. The



blood vessels, labelled 6, contain deoxygenated blood and the valve leading to it has three semi-lunar pockets

What is diastole

96. Given below is a simple diagram of the circulation of blood in a mammal showing the main blood vessels, the heart, lungs and body tissues. The



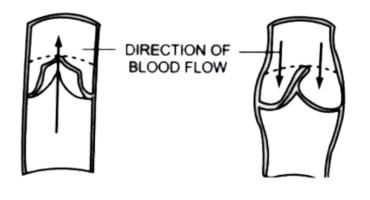
blood vessels, labelled 6, contain

deoxygenated blood and the valve leading to it has three semi-lunar pockets

What is diastole



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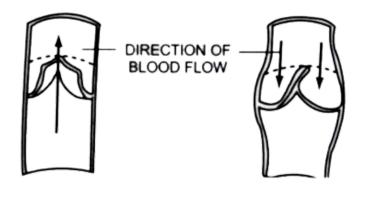


Describe

the role of these structures.



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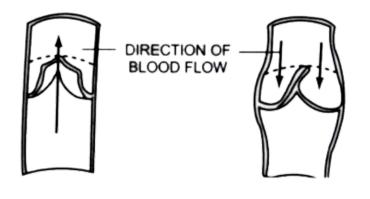


Describe

the role of these structures.



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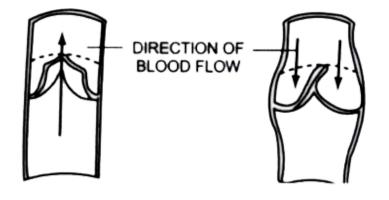


Describe

the role of these structures.



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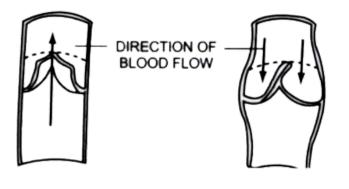


Are

these structures present in any other kind of blood vessel? If so, name it.



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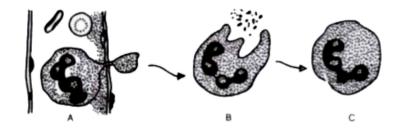
Towards

which side of the figure (top or bottom) is the heart located ?



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102. Look at the figures A, B and C carefully and answer the questions which follow:



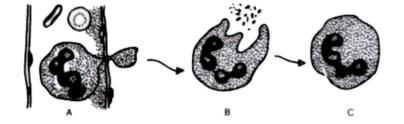
Which kind of blood vessel is shown in A?

Write any two characteristics of such blood vessels.



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103. Look at the figures A, B and C carefully and answer the questions which follow:

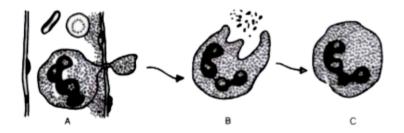


Name two kinds of blood cells shown in A



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104. Look at the figures A, B and C carefully and answer the questions which follow:



Describe step by step what is happening in the

three figures. What is the advantage of this activity to our body?



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105. Blood of Mr X and Mr Y was tested to determine their blood group. Their blood samples were mixed with solutions containing either antibody a or antibody b The following table shows the result. Study it and answer the following questions:

Person	Reaction with antibody a	Reaction with antibody b
MrX	No reaction	Agglutination
MrY	Agglutination	Agglutination

Explain what is meant by agglutination



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106. Blood of Mr X and Mr Y was tested to determine their blood group. Their blood samples were mixed with solutions containing either antibody a or antibody b The following table shows the result. Study it and answer the following questions:

Person	Reaction with antibody a	Reaction with antibody b
MrX	No reaction	Agglutination
MrY	Agglutination	Agglutination

What is the blood group of Mr X



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107. Blood of Mr X and Mr Y was tested to determine their blood group. Their blood samples were mixed with solutions containing either antibody a or antibody b The following table shows the result. Study it and answer the following questions:

Person	Reaction with antibody a	Reaction with antibody b
MrX	No reaction	Agglutination
MrY	Agglutination	Agglutination

What is the blood group of Mr Y.



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108. Blood of Mr X and Mr Y was tested to determine their blood group. Their blood samples were mixed with solutions containing either antibody a or antibody b The following table shows the result. Study it and answer the following questions:

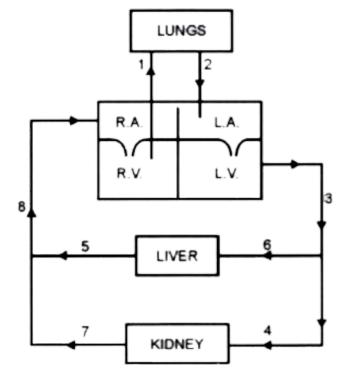
Reaction with antibody a	Reaction with antibody b
No reaction	Agglutination
Agglutination	Agglutination
	antibody a No reaction

Explain why agglutination did not take place when the blood sample of Mr X was mixed with a solution containing antibody a.



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109. Given below is a diagrammatic representation of a certain part of the process of circulation of blood in man. Study the same and then answer the questions that follow:

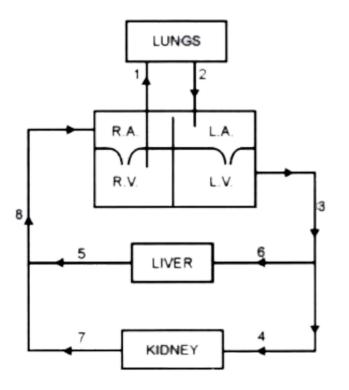


Name the parts labelled 1, 2, 4 and 6



110. Given below is a diagrammatic representation of a certain part of the process

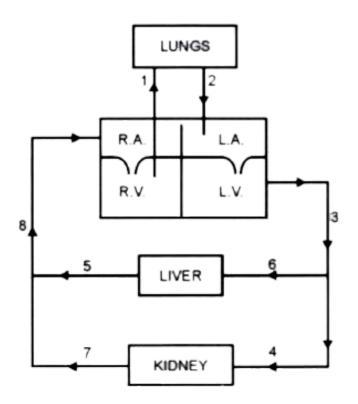
of circulation of blood in man. Study the same and then answer the questions that follow:



Give the number and name of the vessel which contains the maximum amount of urea a few hours after a protein rich meal.



111. Given below is a diagrammatic representation of a certain part of the process of circulation of blood in man. Study the same and then answer the questions that follow:

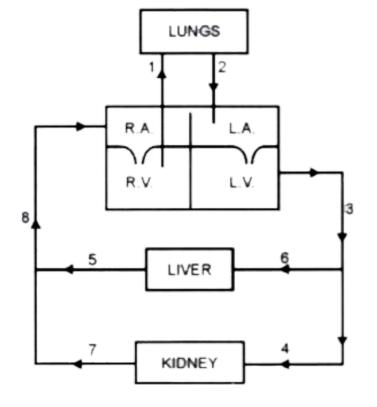


Draw a neat, labelled diagram of the cross sectional view of the blood vessel numbered 3.



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112. Given below is a diagrammatic representation of a certain part of the process of circulation of blood in man. Study the same and then answer the questions that follow:



Mention two structural differences between blood vessels '3' and '8



113. Slate the main functions of:

Chordae tendineae



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114. Slate the main functions of:

Lymphocytes



115. State main functions of:

Coronary artery



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116. Give biological technical terms for the following

Squeezing out of white blood cells from the capillaries into the surrounding tissues,



117. Give biological technical terms for the following

The sound produced when the atrioventricular valves close the heart.



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118. The process by which a white blood cell or an amoeba engulfs bacteria is called phagocytosis.



119. What are the cellular components of blood?



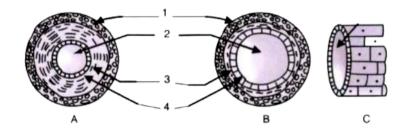
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120. Give biological technical terms for the following

Squeezing out of white blood cells from the capillaries into the surrounding tissues,

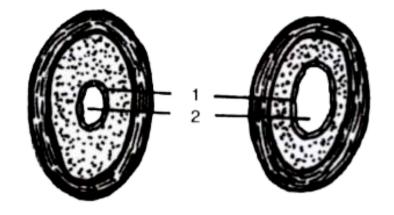


121. The figures given below are crose-coctions of blood vessels



Identity the blood vessels A B and C.

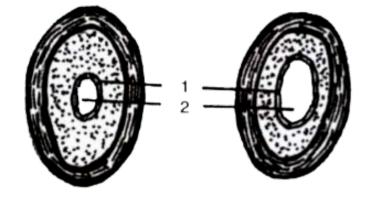




Name the parts numbered 1 and 2



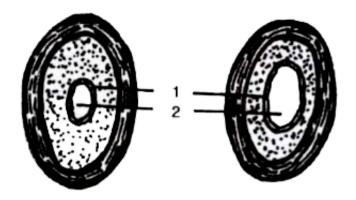
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When are the sounds "LUBB" and "DUP produced during a heartbeat?



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Name the blood vessel that

(1) begins and ends in capillaries



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Name the blood vessel that

(2) supplies blood to the walls of the, heart,



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126. State the exact location of the following Pulmonary semilunar valve



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127. State the exact location of the following Chordae tendinae



128. State the exact location of the following

Pulmonary semilunar valve



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129. State main functions of :

Give the exact location of Mitral valve.



130. State the exact location of the following Tricuspid valve.



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131. Choose the correct answer from the four options:

Pure blood is supplied to all the body parts by

A. Systole of atria

B. Diastole of atria

- C. Systole of the left ventricle
- D. Systole of the right ventricle

Answer:



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132. Choose the correct answer from the four options:

The mineral ion needed for the formantion of blood clot is

A. Potassium
B. Sodium
C. Calcium
D. Iron
Answer:
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133. Choose the correct answer from the four
options:

While recording the pulse rate, where exactly does a doctor press on our wrist?

- A. Nerve
- B. Vein
- C. Artery
- D. Capillary

Answer:



134. Choose the correct answer from the four options:

A muscular wall is absent in:

- A. Capillary
- B. Venule
- C. Artenole
- D. Vein

Answer:



135. Differentiate between the following pairs on the basis of what is indicated within the brackets:

Bicuspid and tricuspid valve (location)



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136. Differentiate between the following pair on the basi of what is mentioned within brackets

Blood in the renal artery or renal vein (Which one has more urea?)



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137. Differentiate between the following pair on the basis of what is mentioned within brackets

Blood in the pulmonary artery or pulmonary vein (Which one contains less oxyhaemoglobin?)



138. Rewrite the terms in correct order so as to be in a logical sequence.

Intestine, Liver, Intestinal artery, Hepatic vein,
Hepatic portal vein.



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139. Rewrite the terms in correct order so as to be in a logical sequence.

Fibrin, Platelets, Thromboplastin, Fibrinogen,

Thrombin



140. Give biological reason for the following:

The wall of the ventricle is thicker than the auricles,



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141. Give biological reason for the following:

The left ventricle of the heart has a thicker wall than the right ventricle.

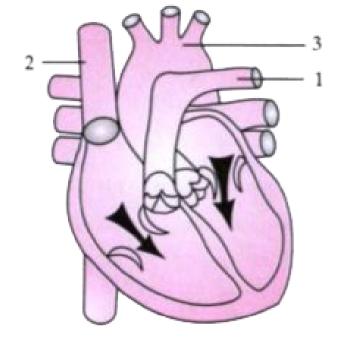
142. Give biological reason for the following:

Carbon monoxide is dangerous when inhaled.



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143. The diagram given below represents the human heart in one phase of its functional activities. Study the same and answer the questions that follow:



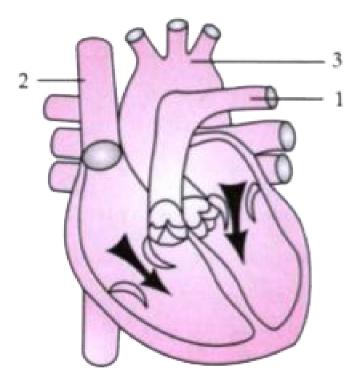
Name the phase.



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144. The diagram given below represents the human heart in one phase of its functional

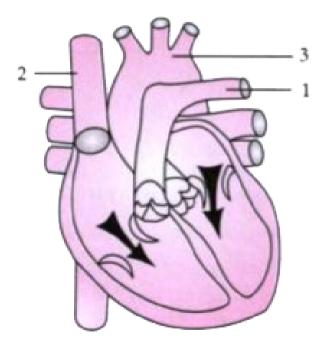
activities. Study the same and answer the questions that follow:



Label the parts 1, 2 and 3.

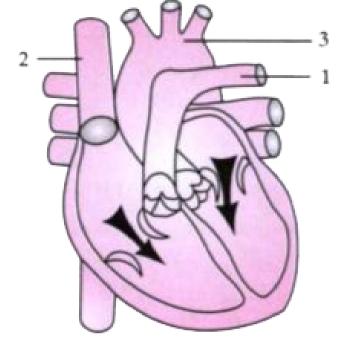


145. The diagram given below represents the human heart in one phase of its functional activities. Study the same and answer the questions that follow:



Which part of the heart is contracting in this phase? Give a reason to support your answer

146. The diagram given below represents the human heart in one phase of its functional activities. Study the same and answer the questions that follow:



Draw well labelled diagrams of part 1 and 2 to show the structural differences between them.



147. The diagram given below represents the simplified pathway of the circulation of blood. Study the same and answer the questions that follow:



Name the blood vessels labelled 1 and 2



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148. The diagram given below represents the simplified pathway of the circulation of blood.

Study the same and answer the questions that follow:



State the function of blood vessels labelled 5 and 8



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149. The diagram given below represents the simplified pathway of the circulation of blood.

Study the same and answer the questions that follow:



What is the importance of the blood vessel labelled 6?



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150. Which blood vessel will contain a high amount of glucose and amino acids after a meal



151. The diagram given below represents the simplified pathway of the circulation of blood. Study the same and answer the questions that follow:



draw a diagram of the different blood cells as seen in a smear of human blood



152. The diagram given below represents the human heart in one phase of its functions. Study the diagram carefully and answer the questions that follow:



Name the phase.



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153. The diagram given below represents the human heart in one phase of its functions.

Study the diagram carefully and answer the questions that follow:



Which part of the heart is contracting in this phase? Give a reason to support your answer.



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154. The diagram given below represents the human heart in one phase of its functions. Study the diagram carefully and answer the questions that follow:



Name the parts labeled 1 to 5.



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155. The diagram given below represents the human heart in one phase of its functions. Study the diagram carefully and answer the questions that follow:



What type of blood flows through 2'?



156. The diagram given below represents the human heart in one phase of its functions. Study the diagram carefully and answer the questions that follow:



Slate the function of the part numbered '5'.



157. Name the membrane that covers the heart.

158. Name the membrane that covers the



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159. The diagram given below represents a section of the human heart. Answer the questions that follow:



Which parts of heart are in the diastolic phase? Give a reason to support your answer.



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160. The diagram given below represents a section of the human heart. Answer the questions that follow:



Label the parts numbered 1 and 2 in the diagram, What type of blood flows through them?

161. The diagram given below represents a section of the human heart. Answer the questions that follow:



What causes the heart sounds "LUBB' and 'DUP



162. Name the blood vessels that supply oxygenated blood to the heart muscles.

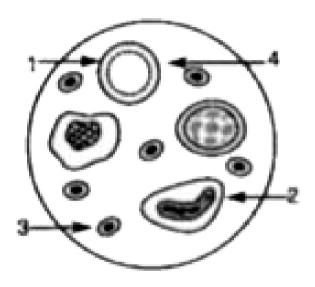
163. The diagram given below represents a section of the human heart. Answer the questions that follow:



Draw neat labelled diagrams of a cross-section of an artery and a vein.



164. Given below is a diagram of a human blood smear. Study the diagram and answer the questons that follow:

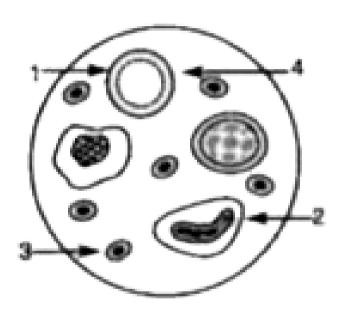


Smear of human blood

Name the components numbered 1 to 4.



165. Given below is a diagram of a human blood smear. Study the diagram and answer the questons that follow:



Smear of human blood

Mention two structural differences between the parts '1' and 2.



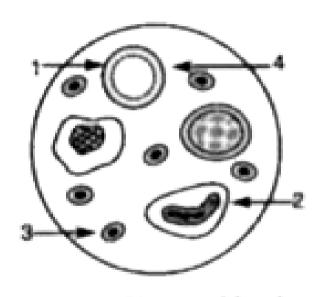
166. Given below is a diagram of a human blood smear. Study the diagram and answer the questions that follow:



Name the soluble protein found in part 4 which forms insoluble threads during clotting of blood



167. Given below is a diagram of a human blood smear. Study the diagram and answer the questons that follow:



mear of human blood

Whatis the average lifespan of the component numbered '1'?



168. Given below is a diagram of a human blood smear. Study the diagram and answer the questions that follow:



Component numbered '1' do not have certain organelles but are very efficient in their function Explain.

