

HW
14/09/2024

HOME ASSIGNMENT

① Why circulatory system is important?

Ans

Circulatory system is important -

* It helps to transport waste products such as urea to the kidneys for removal.

* It helps to for gaseous exchange (O_2 & CO_2) in our body.

* It helps to transport digested food material to the cells of the body.

② Draw the diagram of heart and label the parts.

Ans

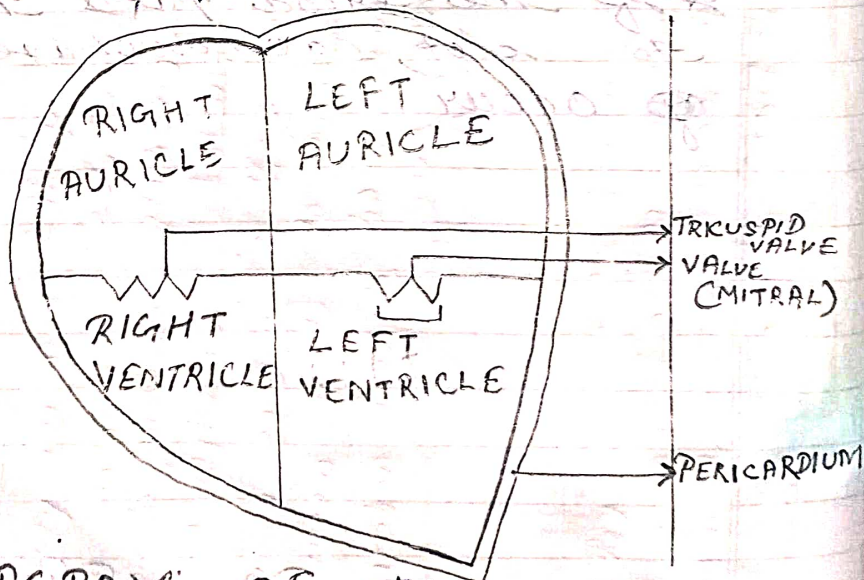


DIAGRAM OF THE HUMAN HEART.

③ Differentiate between the three blood vessels.

<u>ARTERIES</u>	<u>VEINS</u>	<u>CAPILLARIES</u>
<p>* They carry blood from the heart to various parts of the body.</p>	<p>* They carry blood from different parts of the body to the heart.</p>	<p>* They supply oxygenated blood to cells & take deoxygenated from the cell. <small>(gaseous exchange)</small></p>
<p>* They carry oxygenated blood (except the pulmonary artery).</p>	<p>* They carry deoxygenated blood (except the pulmonary vein).</p>	<p>* They connect interconnect the arteries and the veins.</p>
<p>* They have thick and more muscular walls.</p>	<p>* They have thin and less muscular walls.</p>	<p>* They have ^(no muscle) thin and ^{have} single celled walls.</p>
<p>* Here, blood flows with high speed and under high pressure.</p>	<p>* Here, blood flows with low speed and under low pressure.</p>	<p>* Here, blood flows with slowest speed and under very low pressure.</p>

4) Write in a tabular form different components of blood.

Red Blood Cells (RBCs)	White Blood Cells (WBCs)	Platelets	Plasma
<ul style="list-style-type: none"> * They are also called Erythrocytes. 	<ul style="list-style-type: none"> * They are also called Leucocytes. 	<ul style="list-style-type: none"> * They are also called Thrombocytes. 	<ul style="list-style-type: none"> * It serves as the liquid base for whole blood.
<ul style="list-style-type: none"> * They are red in colour (due to presence of haemoglobin). 	<ul style="list-style-type: none"> * They are colourless (no haemoglobin) & translucent. 	<ul style="list-style-type: none"> * They are colourless (no haemoglobin). 	<ul style="list-style-type: none"> * They are pale yellow in colour.
<ul style="list-style-type: none"> * They carry oxygen and carbon dioxide. 	<ul style="list-style-type: none"> * They help to protect the body from infections & other diseases. 	<ul style="list-style-type: none"> * They help in the clotting of blood. 	<ul style="list-style-type: none"> * They transport glucose, other dissolved nutrients & substances like hormones through the blood & ^{helping} <u>blood vessel</u> ^{clot}.
<ul style="list-style-type: none"> * They are disc-shaped or circular biconcave non-nucleated. 	<ul style="list-style-type: none"> * They are round or irregular, can change shape or amoeboid nucleated. 	<ul style="list-style-type: none"> * They are small and irregular in shape or circular biconcave non-nucleated. 	<ul style="list-style-type: none"> * It is a liquid ^(92% water) so, it has no shape.

Red Blood Cells (RBCs)	White Blood Cells (WBCs)	Platelets	Plasma
* There are 5.4 million RBCs/ μ L (in adult males) and 4.8 million RBCs/ μ L (in adult females).	* There are 5000-10,000 WBCs/ μ L in adults.	* There are 1,50,000 - 4,00,000 platelets/ μ L in adults.	-
* Size of RBCs - Diameter = 7.8 μ m Thickness = 2.5 μ m	* Size of WBCs - 12-15 μ m	* Size of WB Platelets - 2-4 μ m	-
* Life span of RBCs is 120 days.	* Life span of WBCs is 10-13 days.	* Life span of Platelets is 5-9 days.	-
* The production of RBCs is known as erythropoiesis.	* The production of WBCs is known as leucopoiesis.	* The production of platelets is known as thrombopoiesis.	-