

India's Number 1 Education App

### **BIOLOGY**

## BOOKS - VGS BRILLIANT BIOLOGY (TELUGU ENGLISH)

# TRANSPORTATION - THE CIRCULATORY SYSTEM

**Conceptual Understanding** 

1. What is transport system ? How does this

help to the organism?

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2. What is the importance of transport system

in the organisms?



3. What is the relationship between blood and

plasma?

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4. What is the relationship between blood and

plasma?



5. Which type of blood vessels carry blood away from the heart?
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6. Which blood vessels carry blood from heart

to body parts?

7. What are the three main types of blood

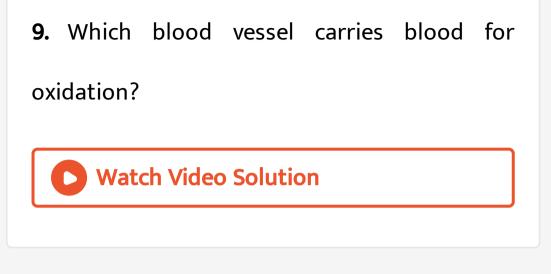
vessels in the body?

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8. Which is the largest artery in body? Why it is

big in size?



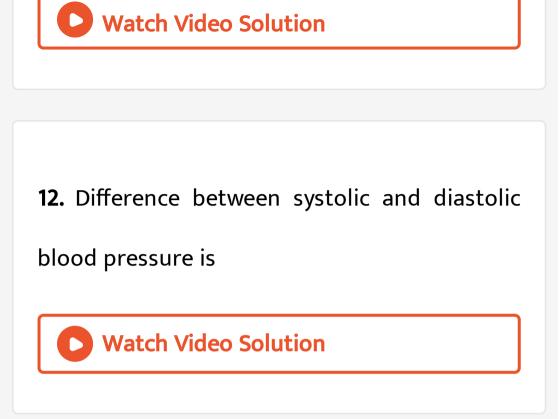


10. Name the structures which are present in

veins and lymph ducts and absent in arteries.



**11.** What is the use of platelets?



13. Write differences between

Veins - Arteries ?

14. Write differences between

Xylem - Phloem ?



15. Explain the way how plants get water by

osmosis through root hair?

16. Explain the way how plants get water by

osmosis through root hair?

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17. Explain the way how plants get water by

osmosis through root hair?

18. What is root pressure ? How is it useful to

the plant?

Watch Video Solution

**19.** Phloem is a food source for some animals.

How can you justify this statement?

**20.** Read the given para and name the parts of the heart?

"We have observed that the heart is divided into four chambers by muscular stucture. Any structure that divides two chambers is known as septum. Now let us try to name the septa present in the heart".

The septum that divides the two atria can be named as.....



21. The septum that divides the two ventricles

can be named as.....



22. The septum that divides the atrium and

ventricle can be named as.....

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**23.** "The holes that connect two chambers are called apertures. Let us try to name the

apertures which connect the atria and ventricles". The aperture that is connecting the right atrium and right ventricle can be named as.....

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**24.** The aperture that is connecting the left atrium and left vertricle can be named as.....



**25.** "Any structure that closes an aperture, and allows one way movement of materials is called vaive. Now let us name the valves that are present in the chambers of the heart". The valve that is present between left atrium and left ventricle can be named as.....

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**26.** The valve that is present between right atrium and right ventricle can be named



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#### Asking Questions And Making Hypothesis

**1.** If the valves in veins of the legs fail to stop the flow of blood, what could be the consequences of this failure?

2. What will happen if cell sap of root hair cells

contain high concentration of ions?

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Experimentation And Field Investigation

**1.** John prepared stethoscope with paper cup and plastic tube. Write down the procedure of preparation?

2. How can you prove that the water transport

through the xylem?

**Watch Video Solution** 

3. What is your inference about experiments

with aphids?

Watch Video Solution

Information Skills And Projects

**1.** Collect information about blood pressure of your school teachers or your neighbours and prepare a report on their health problems?

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#### **Communication Through Drawing Model Making**

**1.** Draw a block diagram to explain single and double circulation. Write differences between them?



2. Prepare a block diagram showing from water absorption by roots to transpiration by leaf?



Appreciation And Aesthetic Sense Values

1. What do you want to compare with the transportation in blood vesseles in man?
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2. How do you feel about transportation of

water in huge trees?

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Application To Daily Life Concern To Biodiversity

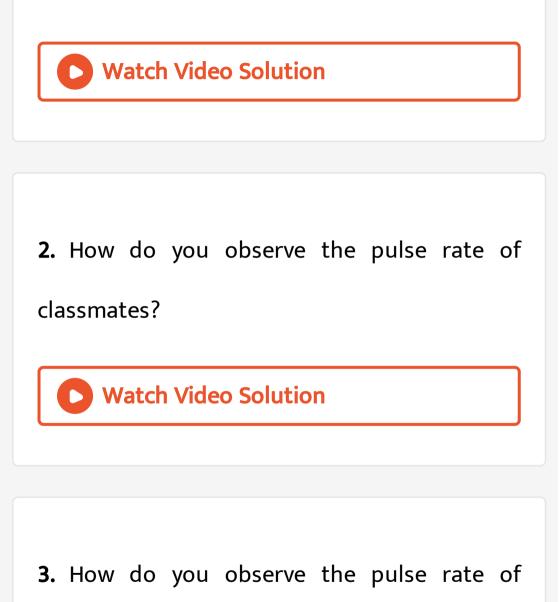
1. Prepare a cartoon on heart beating?



**2.** After reading this lesson, what precautions would you suggest to your elders about edema?



1. How can you find out your pulse rate ?



classmates?



**4.** In the experiment of anaerobic respiration with yeast

What did you understood about anaerobic respiration?

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5. When do you think that our pulse rate goes

up?



6. What does the pulse rate show?

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**7.** How do you observe the pulse rate of classmates?

8. What activities will you do to find relation

between heart beat and pulse rate?



9. What is the relationship between the heart

beat and the pulse?



10. Can we say, the pulse rate is always equal

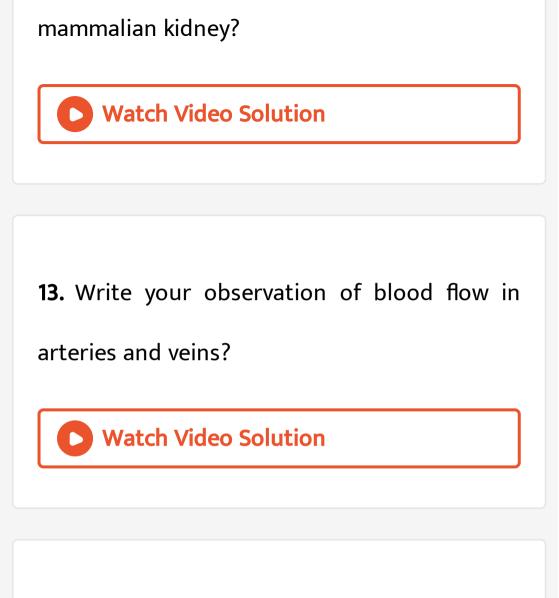
to the heart beat?

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11. How do you observe the mammalian heart?

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**12.** What precautions you have to take in the observation of internal structure of



**14.** How is water absorbed into the roots? Explain with an experiment?

**15.** Explain the way how plants get water by osmosis through root hair?

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16. Describe an experiment to demonstrate

root pressure in plants?

1. Is the thickness of the wall of the heart

uniform throughout?

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2. How many chambers are present in the

heart ? What are they?

3. Are all the chambers connected to each

other?



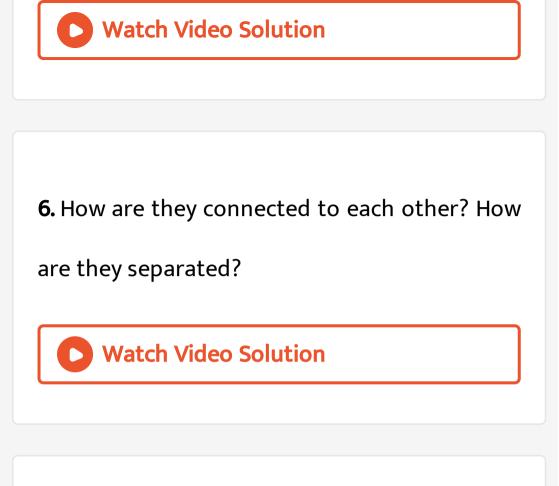
4. Are all the chambers connected to each

other?

Watch Video Solution

5. What are the other differences could you

observe between the chambers?



### 7. Do you find any specific observation in

between two chambers?

8. How many times did your pointer touch the

heart in fig. - 11(a) and (b)?



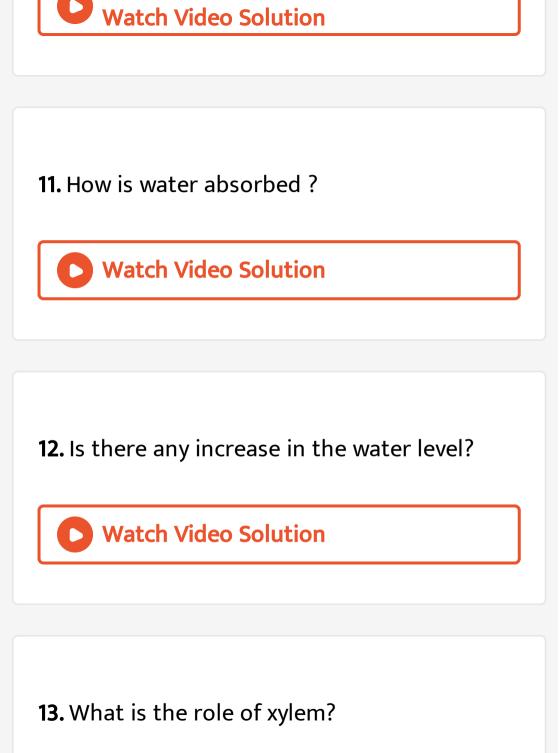


**9.** What is the mechanism behind this?

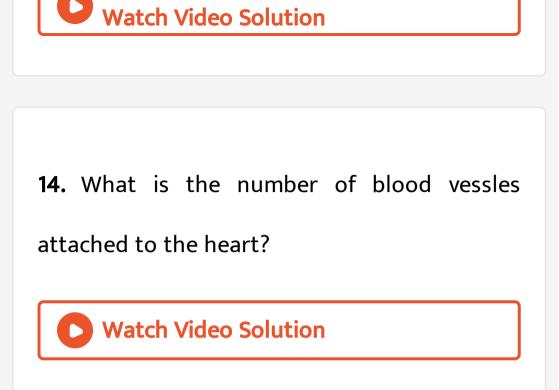
Watch Video Solution

**10.** Are root directly in contact with water?









15. Are all the blood vessels right ? How many

of them are rigid?

**16.** Do you think that the stiffness/rigidity of blood vessel is something to do wih circulation?

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**17.** Why do our legs swell?

Watch Video Solution

18. Is there anything like that in plants which

corresponds to circulatory system?



19. Answer the following after reading the experiment conducted by William Harvey in textbook page no. 54 & 55.
In which blood vessels valves are found ? What do you think is the function of the valves in them?

**20.** Why do subcutaneous blood vessels bulge on the side away form the heart when the hand is tied?



21. The deep seated blood vessels bulge on the

side towards the heart when tied. What do

you understand from it?

**22.** There are valves in the heart between atria

and ventricles. Is the purpose of valves in the

veins and arteries same?

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**23.** After reading the experiments by Harvey fill in the following table. Use the clues/options given in the first column?



1. Artery walls are very strong and elastic.

Why?

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2. Why do compare arteries like tree which

divides into smaller and smaller branches?

3. Why do veins have thin walls as compared

to arteries ?



4. The term reproductive health refers to

A. Heart

B. Vein

C. Lymph

D. Capillary





**5.** On which side of the human heart is low in oxygen?

A. Left ventricle

B. Right ventricle

C. Left atrium

D. Right atrium

#### Answer: A::B::D



# **6.** Which structures of the heart control the flow of the blood?

A. Arteries

B. Veins

C. Valves

D. Capillaries





7. Which of the following opinions is correct?

A. Ravi said xylem and phloem cells

arranged one upon the other to form a

tube like structure.

B. John said xylem and phloem are not

separate tube like structures.

C. Salma said, xylem and phloem cells connect together to form tube like structure.

D. Hari said because of its shape they said

to be tube like structure.

Answer: C

8. An aphid pierces its proboscis into the......to

get plant juices?

A. Xylem

B. Phloem

C. Cambium

D. Vascular bundle

**Answer: B** 

1. Identify the labelled part 'x' in the above

figure?



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# 2. Name the type of circulatory system shown

in the above figure?





in the above figure?



View Text Solution

# 4. The above figure is associated with which

system?





# **5.** Name the instrument shown in the above figure?



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# 6. What is the use of above shown instrument

in the figure?



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## 7. What process do you observe in the above

picture?



## 8. Identify the labelled part 'x' in the above

figure?





# 9. What do you prove by this experiment?



# View Text Solution

# **10.** What phenomenon do you observe in the

## above figure?



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11. From which part of the plant body does the

aphid is getting it's food?





**12.** Identify the scientist with the help of the following paragraph?

"He dissected the hearts of dead people and

studied the valves between each atrium and

its ventricle."



**13.** Identify the scientist?

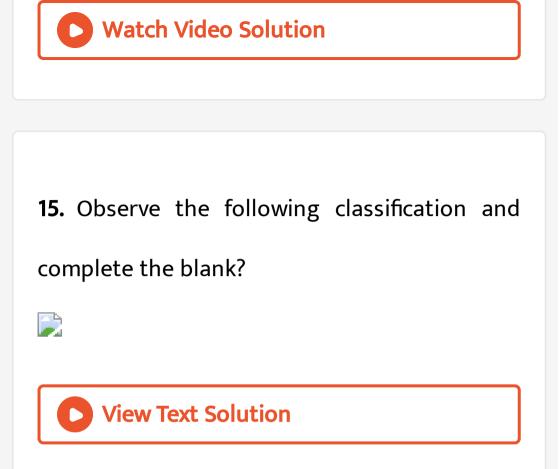
"He found that in one hour, the heart pumped

out a quantity of blood that was three times

the weight of a man."

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**14.** Name the scientist, who conducted studies on the wings of bat to observe blood capillaries?



# 16. Observe the classification and complete the

blank ?







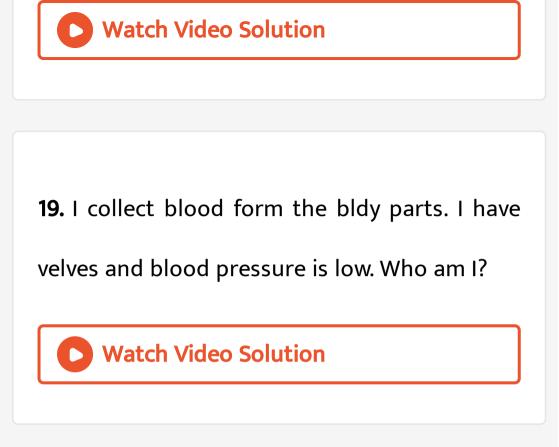
# 17. Observe the flow chart and complete the

## blank?





**18.** We are the microscopic vessel made of single layer of cells. We allow diffusion of various substances. We establish connection between arteries and veins. Who are we?



**20.** I distribute blood to the body parts from heart. I have no valves. I have high blood flow pressure. Who am I?

**21.** I transport water and minerals from roots

to the apical parts of the plant. Who am I?



22. I transport food materials from the leaves

to growing parts of the plant. I have sieve

tubes and sieve cells. Who am I?

**23.** I am the middle man of the bldy. I help in assimilation of digested food. I am responsible for causing edema. Who am I?

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24. I am a part of blood. I am responsible for

blood coagulation. Who am I?

**25.** I am the pargest artery of our body to supply platelets. I start the process of blood coagulation. Who am I?



26. I am an enzyme. I secreted from the blood

platelets. I start the process of blood

coagulation. Who am I?

27. I supply blood to the heart muscles. Any blockage in the leads to heart attack. Who am I?



- **28.** Identify the mismatched pair.
- 1) Double circulation Man
- 2) Single circulation Fish
- 3) 13 -chambers Frog.



**29.** Idendify the mismatched pair.

- 1) Blue coloured blood Snake
- 2) Red coloured blood Monkey
- 3) White coloured blood Cockroach.



- **30.** Identify the mismatched pair.
- 1) Xylem Transport of food
- 2) Phloem Transport of water

3) Root pressure - Push the water in the

conducting vessels.



- **31.** Identify the mismatched pair.
- 1) Blood platelets Blood coagulation
- 2) Lymph Middle man
- 3) Haemoglobin Transport oxygen only.

**32.** Complete the blanks ?

In blood......pigment is present. It helps in transportation of pases. When, it combines with oxygen to form......

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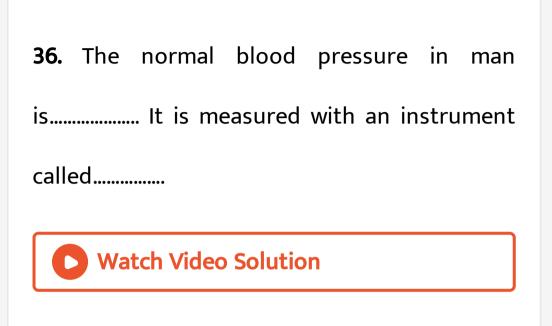
**33.** The valve that is present between right atrium and right ventricle is called...... The valve that is present between left atrium and right ventricle is called.....





34. Marcello Malpighi studied.....and discovered the micro blood vessels called......

**35.** Veins have.....to provide one way direction of flow. The blood pressure in veins



**37.** Read the sentence, find the error and rewrite it.

The yellowish straw coloured fluid portion

after formation of the clot is plasma?





38. Blood coagulation sometimes become

delayed due to the deficiency of vitamin C.

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**39.** Haemophilia is a vitamin deficiency disorder?

40. Thalassemia is the disease in which high

percentage of haemoglobin is present?



**41.** In elder it will be clear that the lower part of the leg will be swollen. It is called blood pressure.



42. Observe the following placards. In which

occasion will you use these placards?





# **43.** Observe the following placards. Can you suggest one occasion to use them in your school?



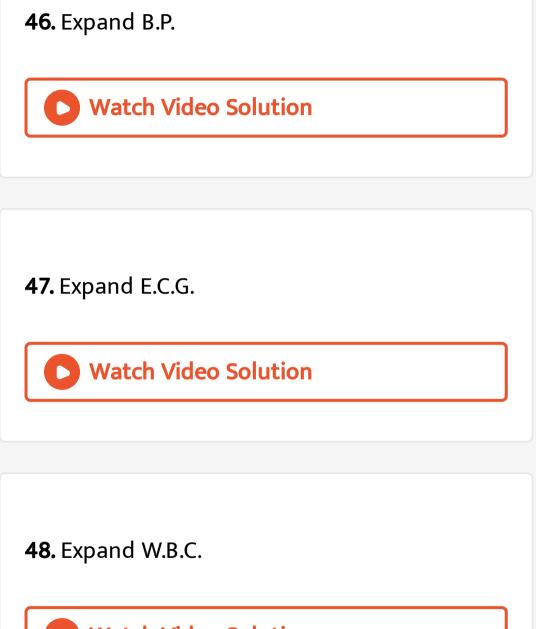
**44.** I am an anticoagulant of blood. I can stop the clotting of blood inside the blood vessels. Who am I?



45. I am always the companian of doctor.

Doctors can hear the heart beat with my help.

Who am I?



## 49. Expand R.B.C.



**50.** Which of the following group, represent the correct pathway of blood flow in human body?

A) Body parts  $\rightarrow$  Left atrium  $\rightarrow$  Left ventricle  $\rightarrow$  Lungs  $\rightarrow$  Right atrium  $\rightarrow$ Right ventricle  $\rightarrow$  Aorta. B) Body parts  $\rightarrow$  Right atrium  $\rightarrow$  Right ventricle  $\rightarrow$  Lungs  $\rightarrow$  Left atrium  $\rightarrow$  Left

ventricle  $\rightarrow$  Superior vena cava.



- **51.** Stuy the following pairs.
- a) Stethoscope Rene Laennec
- b) Blood pressure Thermometer
- c) Amoeba Brownian movement

Identify the mis-matched pair?

- **52.** Which of the following statements are true?
- 1) Arteries have thick walls.
- 2) Arteries carry blood from heart to body parts.
- 3) Arteries have low blood pressure.
- 4) Pulmonary artery carries Oxygenated blood.

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**53.** Name the enzyme that involves in the convertion of fibrinogen into fibrin?



**54.** Valves play special role in the circulatory system. They cannot allow the reverse flow of blood. Which of the below vessels have valves?



**55.** Write missing words (A) & (B) from following flow chart.





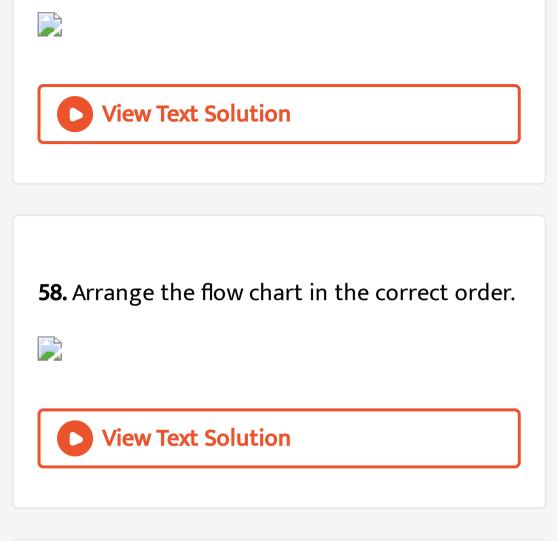


56. Read below sentence. Identify in which part
it is wrong. Expain with suitable word.
Unicellular like amoeba transport of
substances takes place by mens of Brownian
movements.

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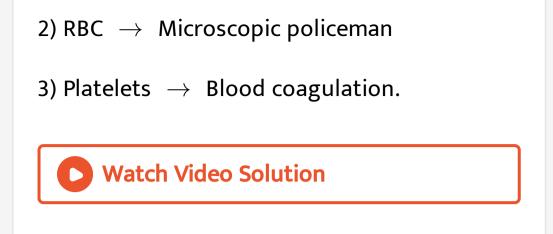
57. What phenomenone do you observe in this

figure?



**59.** Identify the mismatched pair.

1) WBC  $\rightarrow$  Oxygen transportation



## 60. Can you indentify the structures of

transport system?





# 61. Complete this flow chart. **View Text Solution** 62. Complete the missing part.



## **63.** In this picture of heart, 'X' denotes?



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64. Identify the mis-matched pair.

- 1) Heart beat of new born 100 -150
- 2) Heart beat of athlete 60-100
- 3) Heart beat of an adult man 90-100.



65. What is the process going on in the above

#### picture?





## 66. In the experiment, which is responsible for

the increase in the water level in the stem?



### View Text Solution

**67.** Identify the mis-matched pair.

- 1) 2 chambered heart Fish
- 2) 13 chambered heart Snake
- 3) 4 chambered heart Elephant.

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68. Earthwoem : Pulsative vessel,

Arthropods : .....?

69. Identify the mismatched pair.

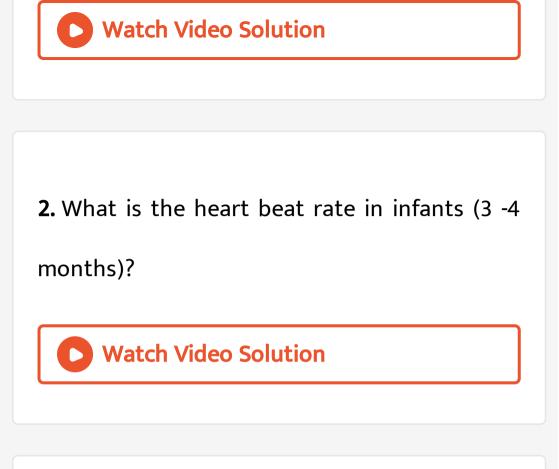
- 1) Middle Man of the body WBC
- 2) Fabrici Wings of the bat
- 3) Harvey blood circulation in human beings.



# Preparation Questions For The Examination Purpose

1. What is the heart beat rate in infants (3 -4

months)?



3. What is the heart beat rate in infants

between 6 -12 months?

4. What is the heart beat rate in children aged

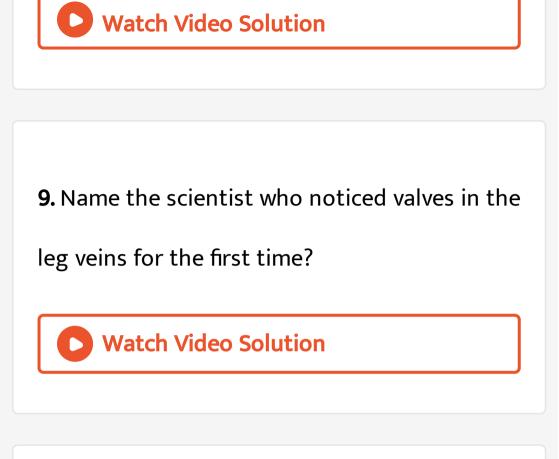
between 1 -10 years?



5. What is the normal heart beat rate is adults?

6. What is the heart beat rate in well trained adults and athletes? Watch Video Solution 7. Who invented stethoscope? Watch Video Solution 8. What is the blood pressure in a normal

healthy man?

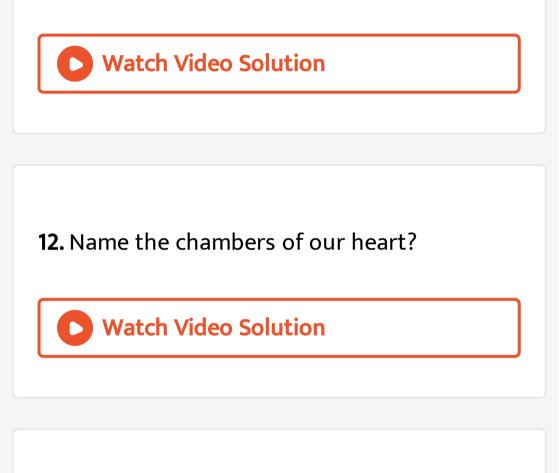


10. Name the outer protective membrane of

heart?

11. Doctors measure the blood pressure with a

device. What is it?



13. If transportation does not take place in

plants, what process will not occur?





14. Where can we observe single circuit blood

circulation?

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15. Name the part that is associated with

transport of water in plants?

16. Which part in the plants is involved in the

transportation of food materials?



17. What materials do you require in the

preparation of an apparatus to know the pulse

rate?



18. Name the enzyme that involves in the convertion of fibrinogen into fibrin?
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19. What percaution do you take while

conducting the experiment on root pressure?

20. Abhi's heart beat is 72 per minute. Then

what is his pulse rate?

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21. Name the vitamin responsible for the

coagulation of blood.

22. When does the heart beat start in the

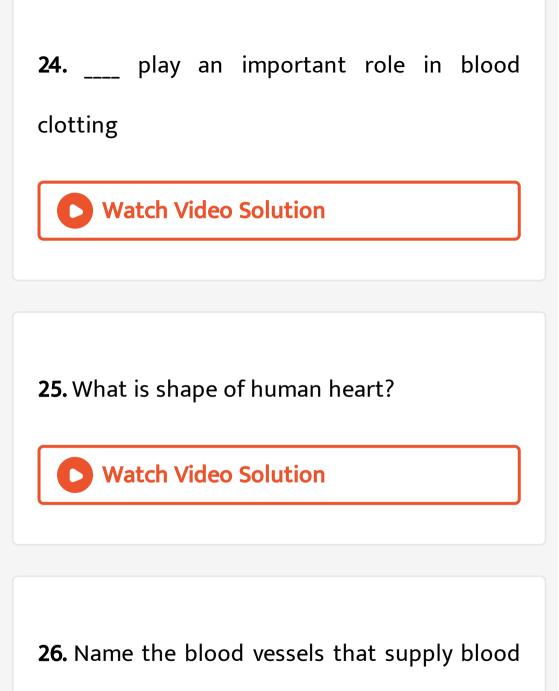
human embryo?

Watch Video Solution

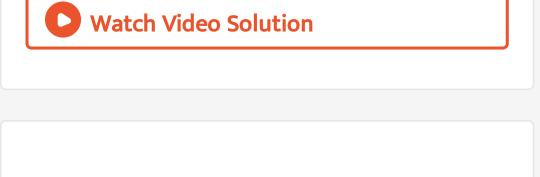
## 23. What happens if haemoglobin is absent in

blood?





in the walls of heart?

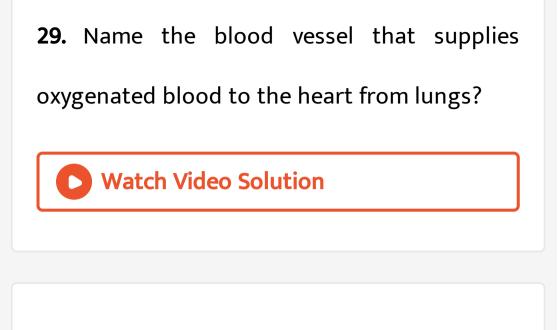


**27.** What is the number of blood vessles attached to the heart?

Watch Video Solution

28. Which is the largest artery in body? Why it

is big in size?



30. Where do superior and inferior vena cava

open into?

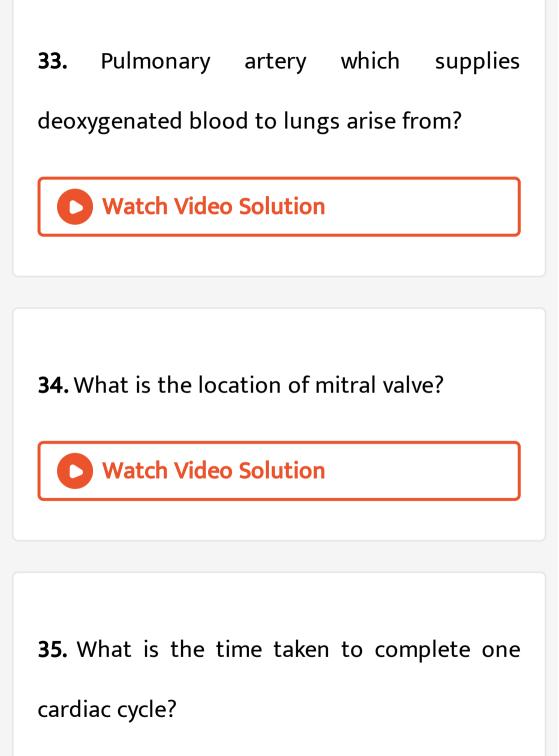
31. Where do pulmonary vein which carries

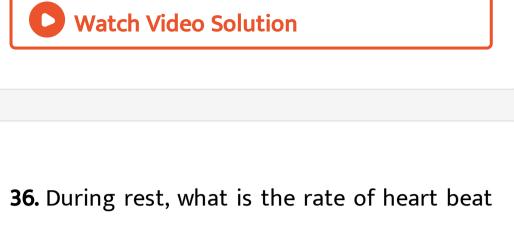
oxygenated blood open into?

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32. Aorta which supplies oxygenated blood to

the body parts arise from?





in human beings?



37. Where can we observe the protoplasmic

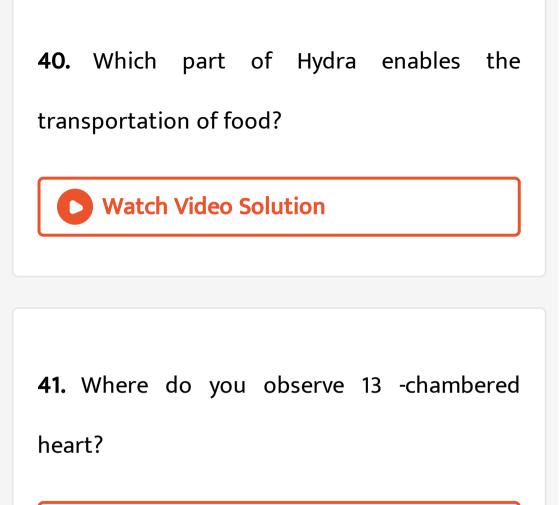
movements called Brownian movements?



**38.** In which animals, the digestive system is highly branched and supplies digested food to all cells directly?

Watch Video Solution

**39.** Paeudocoelom has taken up the function of collection and distribution of food materials. In which organisms you can oberve this?





**42.** What are the first Eucoelomate animals?



## **43.** The transportation in earthworm is aided

by?

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## 44. Name the transportation system that

supplies nutrients to the tissues directly?



45. Where can you observe the open type of

circulatory system?



**46.** Name the type of transport system where the blood takes the responsibility of delivering the materials, which flows in the blood vessels?

**47.** Give examples for closed type of circulatory

system?



48. What is the time taken for the supply of

1ml of blood from heart to a foot and back in

human beings?



49. What occupies the space between the

pleural membranes of the lungs?

> Watch Video Solution

**50.** Name the muscles that help in that pushing of lymph flowing in the lymphatic vessels towards the heart?

**51.** Name the enzyme that is released by platelets when we got an injure and the blood came out?



## 52. What is the genetic defect in which the

blood may not coagulate?



53. What is the part that emerges out of the

germinating seed?

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54. Name the mamals that scratch the bark of

trees to get food stored in the phloem?

**55.** Identify the scientist?

"He found that in one hour, the heart pumped

out a quantity of blood that was three times

the weight of a man."



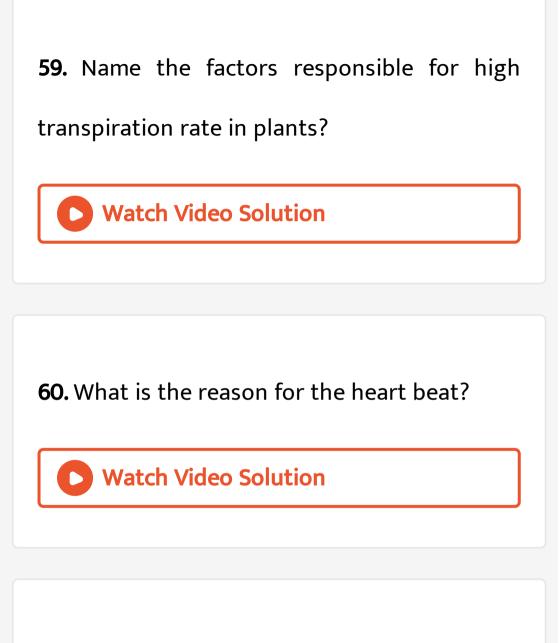
**56.** Name very fine the blood vessels that connect the smallest arteries and veins in our body?



57. What is the active stage of a cardiac cycle?



**58.** What is the time needed for atrial contraction?



**61.** What is "the middle man of the body"?

**62.** In which part of our body, the blood

pressure is measured?



# **63.** What happens in systole?



64. Name the straw coloured fluid portion after formation of blood clot?
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65. What plays an important role in the

absorption of water?



66. 'The avaporation of water through stomata

of leaves takes place". What do you call this

phenomenon?



# 67. Who gave the detailed account of blood

circulation in human beings?

68. What is responsible for the continuous column of moving water in Xylem vessels?
Watch Video Solution

**69.** Name the scientist, who conducted studies on the wings of bat to observe blood capillaries?

**70.** The valve that is present between right atrium and right ventricle can be named as.....



**71.** What is the valve present on the left auriculo ventricular septum between left atrium and left ventricle?

72. What method do you suggest to control

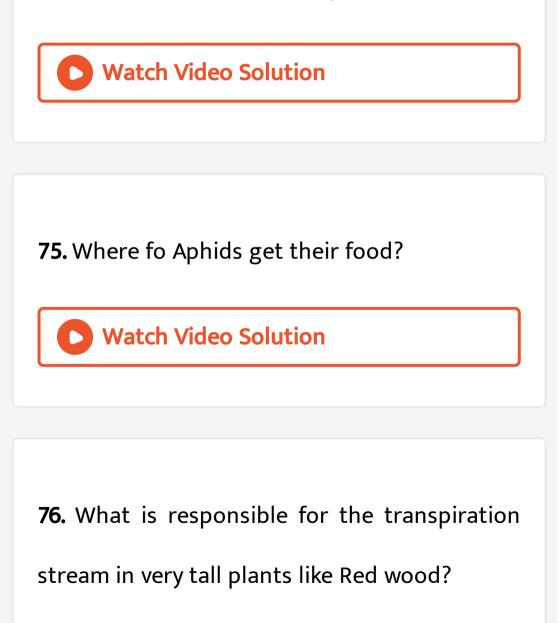
high blood pressure?



**73.** The normal blood pressure in man is 120/80 mm of Hg. What does 120 in this valve represent?

74. 'The normal B.P in man is 120/80 mm/Hg''

What does 80 in the valve represent?



Γ



# 77. In elders, the lower part of the leg will be

## swollen. What do you call this condition?

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78. What is the time needed for the ventricular

contraction?

79. Is there any relation between weight of the

body and heart beat rate ?

<b>Watch Video Solution</b>

80. How many chambers are present in the

heart of blue whale?

**81.** Name very fine the blood vessels that connect the smallest arteries and veins in our body?



**82.** In which animals, the digestive system is highly branched and supplies digested food to

all cells directly?

**83.** Which has taken up the function of collection and distribution of materials in Nematyhelmenthes?

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1 Mark Questions

1. What happens if blood platelets are absent

in blood?

2. Two person's blood Pressure is like this:



Whose blood pressure is high? What does it

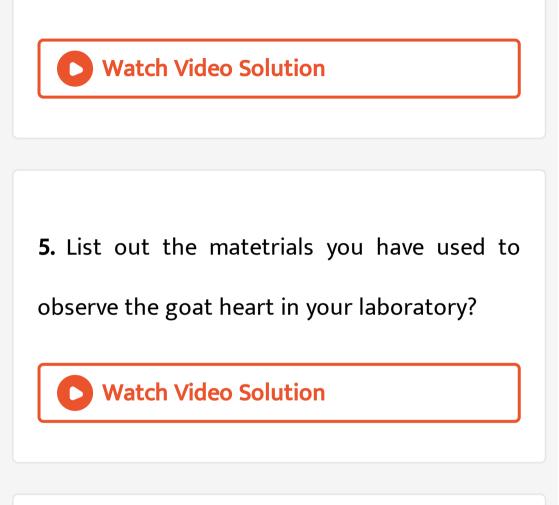
indicate?

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3. When do you think that our pulse rate goes

up?

**4.** How does lymph differ from blood?



6. List out the apparatus required to conduct

root pressure experiment in plant?





7. Which is the largest artery in body? Why it is

big in size?



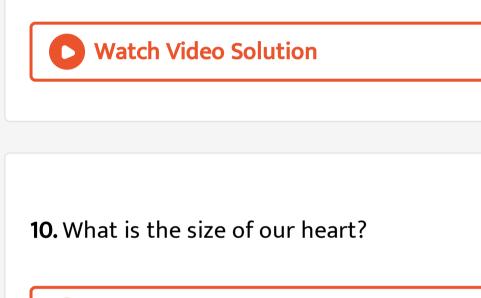
8. Name the apparatus, shown in the figure?

(##BRS\_QB\_BIO\_X\_C03\_E13\_008\_Q01.png"

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9. What heppens if there are no valves in the

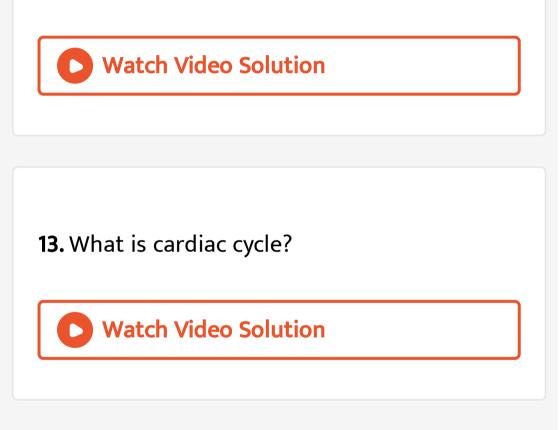
Heart?



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**11.** What is the shape and structure of heart?

## **12.** Which protects the heart from shocks?



**14.** What is cymphatic system?

**15.** What is lymph?

Watch Video Solution

16. What is tissue fluid?

Watch Video Solution

**17.** What is double circulation?

#### 18. What is hypertension?

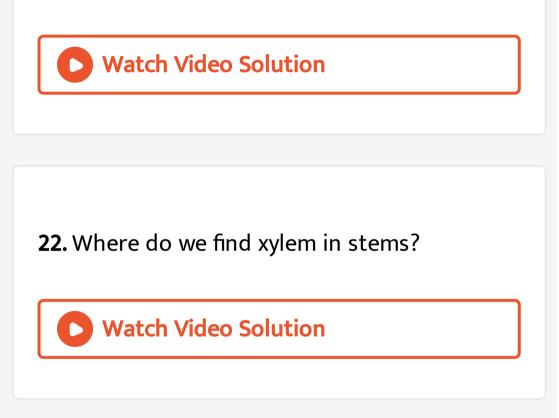


19. What is serum?

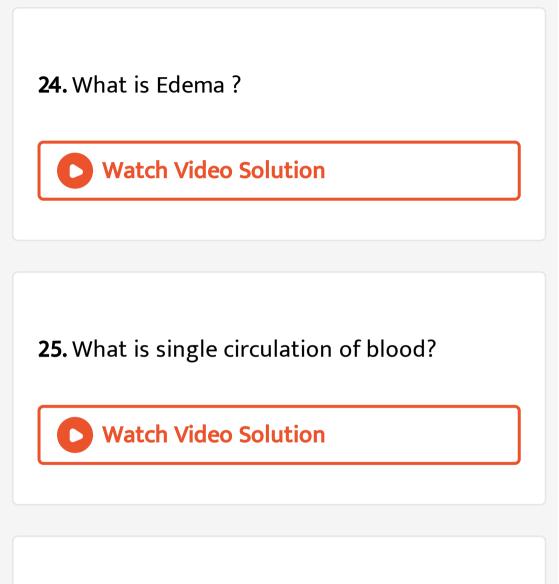
Watch Video Solution

20. What is haemophilia?

**21.** In root where was xylem tissue situated?



23. What is transpiration ?



**26.** What is double circulation?

**27.** What is open type of circulatoty system?

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28. Name the two types of transport systems

in human beings?



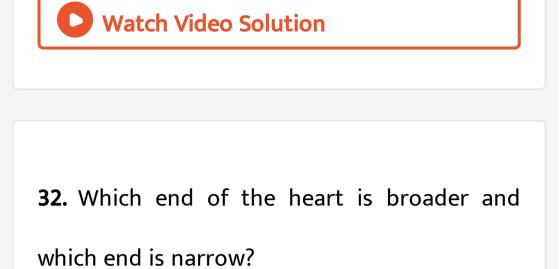
**29.** Name the two parts of a plant through which its gaseous waste products are released into the air?



**30.** What does the pulse rate show?



31. How many layers are convering the heart?



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**33.** Why are the artery walls very strong and

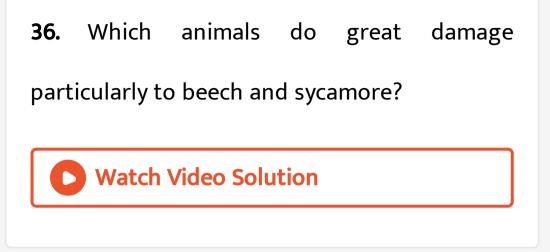
elastic?

34. What is the function of Gestro vascular

cavity?



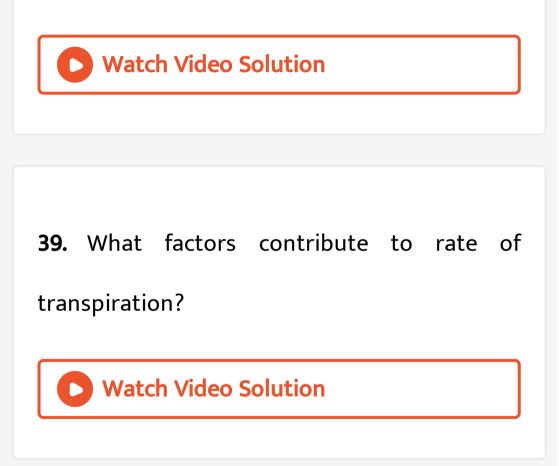
**35.** Which animals are encouraged by foresters to keep down the population of vales and rabbits?



**37.** Sometimes barks of the tree are damaged more than a half, even though tree is alive. How is this possible?

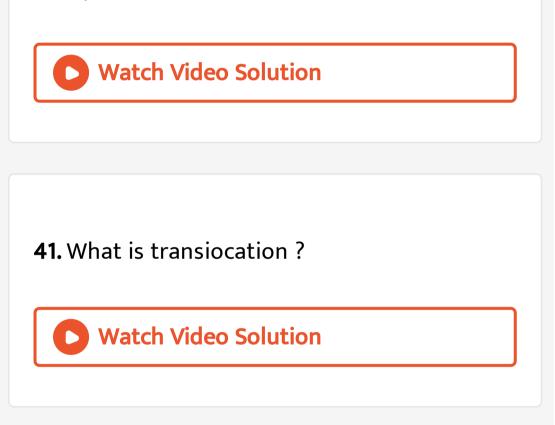
38. Which of the four chambers of the human

heart has the thickest muscular walls?



40. How does transpiration pull help in ascent

of sap?



42. What happens if valves between left auricle

and left ventricle do not work property?

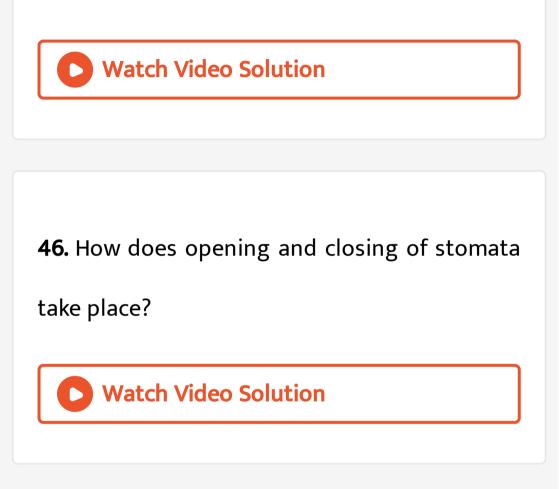


**43.** What happens if the concentration of solution in root hair cell is less than the soil water?

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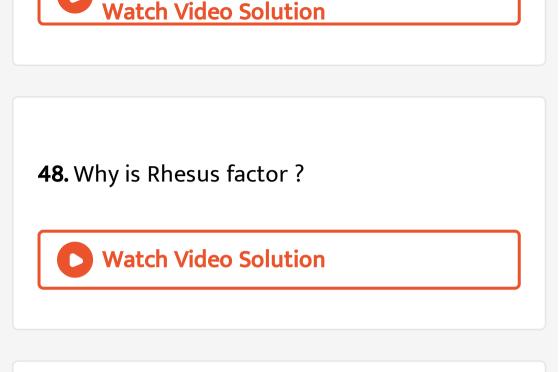
**44.** What is closed type of circulation system?

## **45.** What is Thalassemia?



**47.** Why it is advised to take low amounts of salt in food ?





**49.** What happens if the concentration of solution in root hair cell is less than the soil water?

**1.** Using the data collected by you, from internet and other sources, make a report on coagulation of blood?

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#### 2. What questions do you ask teacher to know

about the coagulation of the blood?

3. What questions do you ask teacher to know

about the coagulation of the blood?

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**4.** Where are the valves located in human heart? Write their names valves present in human heart.

**5.** Neelima conducted an activity on her friends and got the following results.

What is the relation between heart beat and

pulse rate?

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**6.** Why the heart beat rate is more after jogging?



**7.** A person is injured while playing on the ground. Blood is flowing continuously. What might be the reasons?



#### 8. How did you prepare a matchstick

Stethoscope in your school?

9. By the information provided by scientist William Harvey, complete the following tables? **View Text Solution** 10. After reading the functions of lymphatic

system, what precautions you would suggest

to your elders about Edema?

11. What happens if there are no valves in veins?Watch Video Solution

12. What will happen if pulmonary veins are

tied with a thread?



13. Suggest some precautions to avoid cardic

problems?

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14. What changes would you like to bring in

your life style to avoid cardiac problems?

15. Observe the following table and answer the

questions.



What is meant by Cardiac cycle?

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16. What is weight of human heart and heart

beat rate ?

## 17. Read the para:



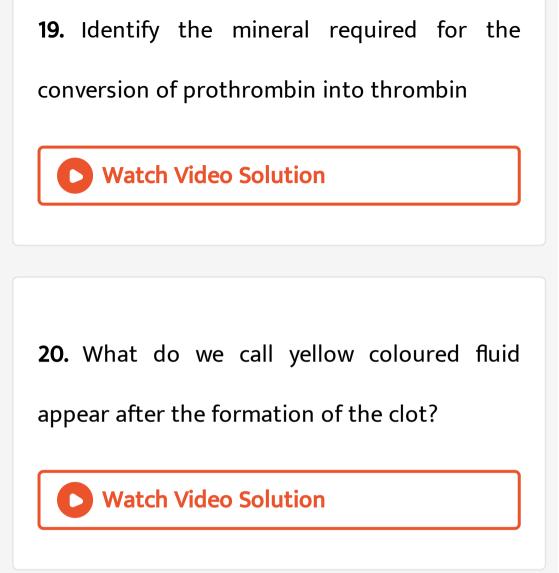
Now, answer the questions:

What happens if blood is not coagulated?



18. Which enzyme helps in the coagulation

process?



21. Which items do you take into consideration

to explain the differences of arteries and



**22.** When you know the heart pumping method in circulatory system, which issue did you remember particularly? What's the reason for that?



**23.** Classify different types of blood vessels in humans. On what bases do you classify blood vessels?



24. Anil fell down while going to school, got knee injury, started bleeding. After sometime he was wondered by seeing blood clot. Why did blood clot? 25. Describe the blood vessels that carry away

blood from human heart?

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26. How is the human heart protected from

shocks or injuries?

27. When are the 'lubb' and dubb' sounds produced by heart? Watch Video Solution **28.** What is cardiac cycle ? How does it occur? Watch Video Solution

**29.** What is cardiac cycle?

**30.** What are the components of the transport

system in highly organised plants ?



# 31. State the role and function of lymph in

human transport system?



32. A certain tissue in a green plant somehow

gets blocked and the leaves wilted. What is the

tissue that gets blocked?



### 33. What happens if valves between left auricle

and left ventricle do not work property?



34. Write the differences between blood and

lymph?



**35.** How does transpiration help plnats ?

Watch Video Solution

**36.** Transpiration is necessary evil. Explain?

**37.** How will you appreciate function of human heart since 21st day of embryonic stage to till

death?

Watch Video Solution

**38.** In some people blood does not coagulate.

Give the reasons for it?

39. What is Haemophilla? What are the causes

for it?

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4 Mark Questions

1. Describe the internal stsructure of heart

with a neat labelled diagram.

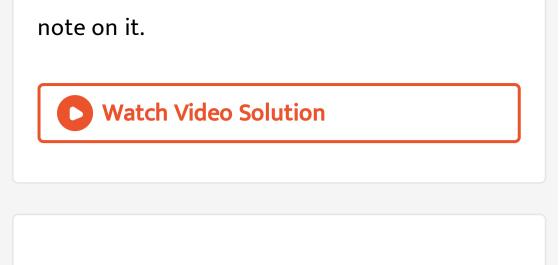
2. What is called pumping station in human body ? Expain its structure with suitable diagram.

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**3.** What is coagulation ?

Watch Video Solution

**4.** Collect information from internet and other sources about blood clotting and prepare a



**5.** Read the tabel and answer the following questions.

In which phylum, blood vessels are first formed

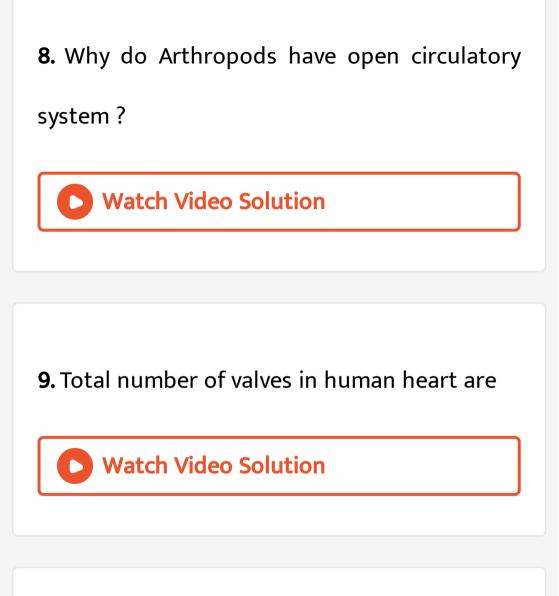
?

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6. In which phylum, organisms have haemoglobin in their blood ?
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7. In which phylum, digestive system helps in

transportation ?



**10.** Ramu got injured while playing Kabaddi. His blood clotted within 6 minutes. Write the procedure involved in it.

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**11.** Read the para :

Now, fill the table with the above information.





12. Write a short note on Human Lymphatic

System and its functions.

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**13.** Observe the given diagram. Which type of cardiac cycle does it indicate ? Explain the process that happens here.

14. In human body "A" is a pumping organ. From lungs blood vessel "B" with oxygenated blood enters upper "C" Part of left chamber of the organ. When " C" chamber contracts blood flows into "D" lower left Chamber. Contracts blood is pumped to all parts of the body except lungs through blood vessel E. Deoxygenated blood from body parts is collected by blood vessel "F" and opens upper "G" right chamber. This chamber contracts blood flows "H" lower chamber. Lastly "H" contracts De-ozygenated blood sent to lungs by blood vessel "I".

What organ does 'A' represents ?



15. What blood vessels are (i) B (ii) E (iii) F and

(iv) I ? Write their names.

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**16.** What chambers are (i) C (ii) D ?

17. What blood vessels are (i) B (ii) E (iii) F and

(iv) I ? Write their names.



## 18. Write about the blood vessels that bring

blood to human heart.

19. What is blood pressure ? How is it measured ?
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**20.** What is the need of special tissues or organs for transport of substances in plants and animals ?

21. Explain the process of transport of mineral

salts.

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22. Write about the changes in the evolution

of transport system in animals.

23. How are water and minerals transported in

plants ?

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24. How is manufactured food in leaves

transported to other parts of the plant ?

**25.** Explain the process of absorption of water by the root hair and movement of water in xylem.



26. If you get chance to meet a cardiologist /

cardiovascular surgeon, what questions will

you ask about the problems related to heart ?



27. Write briefly about the work done by

William Harvey on circulation of blood.



**28.** What was the classical experiment conducted by William Harvey to demonstrate movement of blood in veins ?



**29.** What was the classical experiment conducted by William Harvey to demonstrate movement of blood in veins ?



# **30.** Write an experiment to illustrate the conduction of sugars by phloem.



**31.** Observe folloeing table and answer questions given below.



In which animal is the heart beat rate very

slow?



32. What is weight of human heart and heart

beat rate ?



33. Which animal has the highest heart beat

rate?



### 34. Is there any relation between weight of the

body and heart beat rate ?

35. Draw T.S. of arteries and veins. Write flow of

blood in between them?

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36. Draw T.S. of arteries and veins. Write flow of

blood in between them?

**37.** The diagrams given below show cross-section of two kinds of blood vessels?



Identify the blood vessels A and B. In each

case, give reasons to support your answer?

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**38.** Name the parts numbered 1 and 2?

**39.** In following block diagram, write the missing parts. Name the parts 1,2,3 and 4?

