



BIOLOGY

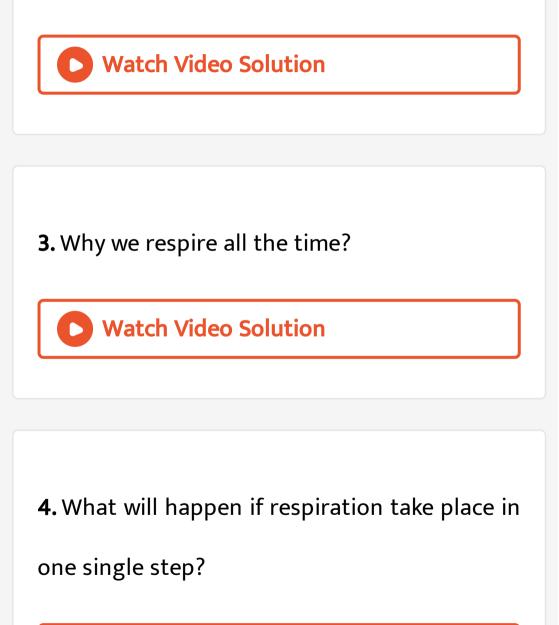
BOOKS - CHETANA PUBLICATION

Respriration and circulation



1. Define respiration

2. List the types of cellular respiration.



5. Why is respiration in insect called direct respiration?



6. Write a short note on Respiration.



7. What are the main features of respiratory surface?

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8. Which are the parts of plant that help in the

process of gaseous exhange?

9. Why large animals can not carry out respiration without the help of the circulatory system?



10. Which is the organ that supports for singing?

11. Name the structural and functional unit of

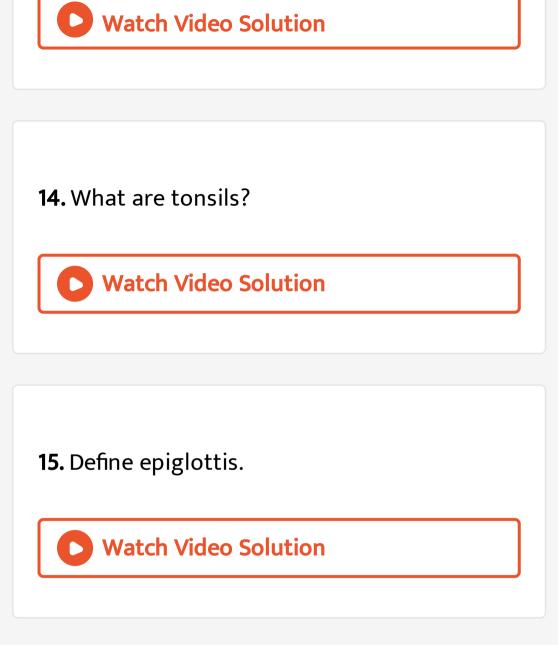
Lungs.



12. Name the catilage which separates right and left nasal chambers.



13. Write a note on nasal chamber regions.



16. Role of epiglottis is



17. Name the organ which prevent the following -the entry of food into the trachea while eating.

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18. Enlist the various parts of respiratory

system.



19. Kavya underwent a surgical procedure called Rhinoplasty. What could have been the reson for such a surgery? On which part of the body is it carried out?

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20. What is the role of tonsils in our body?

How many pairs of tonsils do we have?

21. Shreyas choked while eating dinner. How can you help him? What is the immediate help that can be give to him?



22. Describe the human respiratory system with the help of a neat labelled diagram.



23. What is the importance of pleural fluid?



24. Find the total surface covered by the alveoli.

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25. Why does trachea have 'C' shaped rings of cartilage?

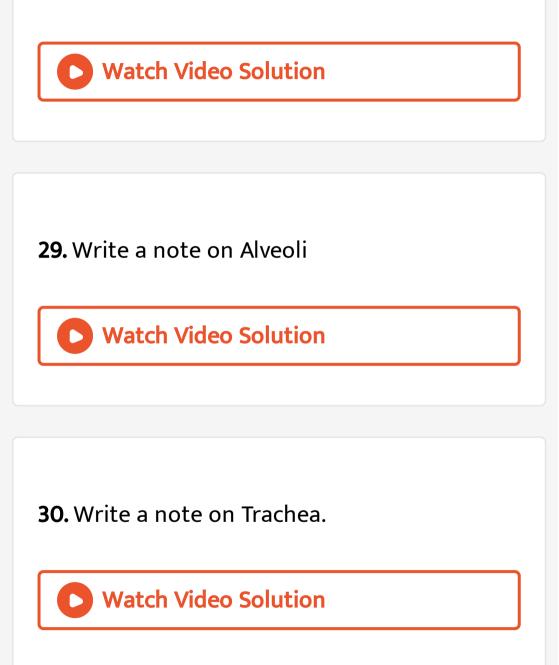


26. Name the organ which prevent the following -the entry of food into the trachea while eating.

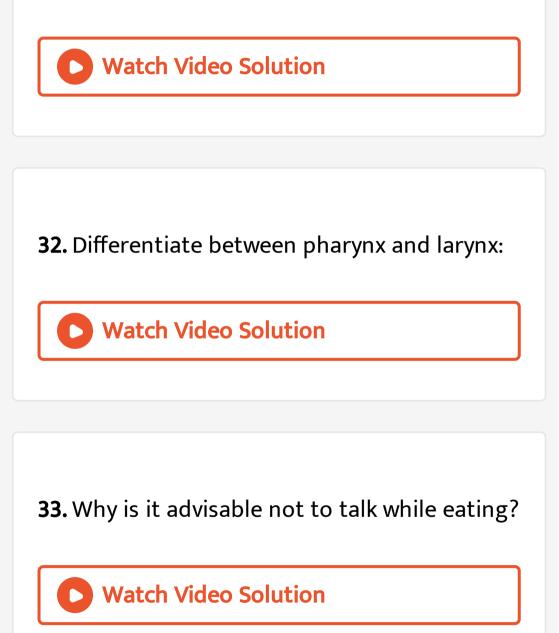
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27. Write a note on Larynx.

28. Write a note on Lungs.



31. Differentiate between right and left lungs:



34. Diffusion of gases occurs in the alveolar region only and not in the other parts of respiratory system why?

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35. Enlist the processes involved in mechanism

of respiration.

36. Why is respiration in insect called direct

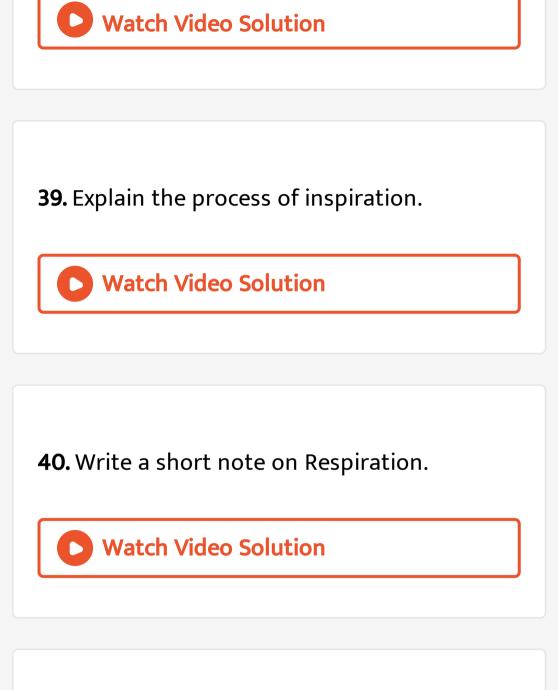
respiration?

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37. Explain the exchange of gases at the alveolar level.

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38. Explain the process of breathing.



41. Explain the process of expiration.



42. Explain the exchange of gases at the alveolar level.

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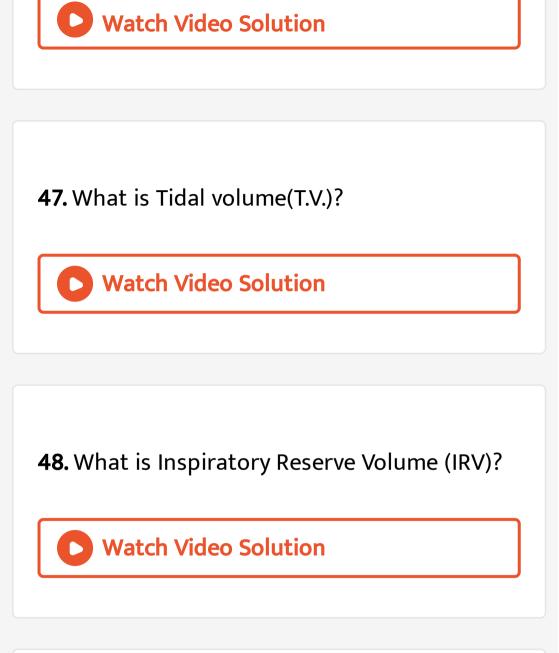
43. Write a note external respiration.

44. Why does gas exchange in the alveolar region very rapid? Watch Video Solution 45. Explain the mechanism of internal

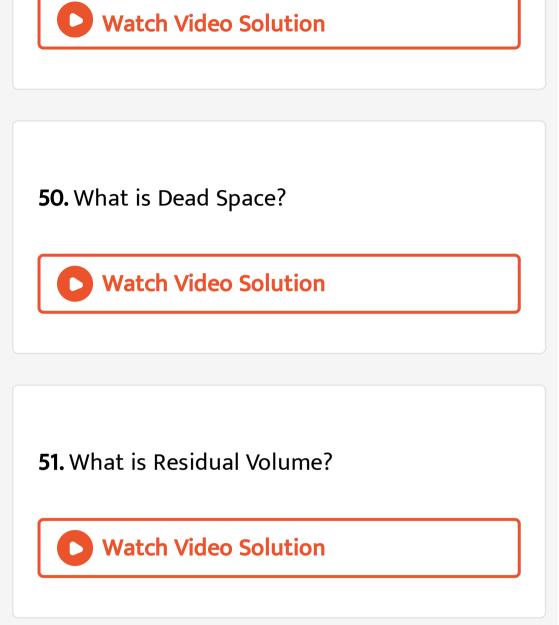
respiration in relation to O_2 transport.



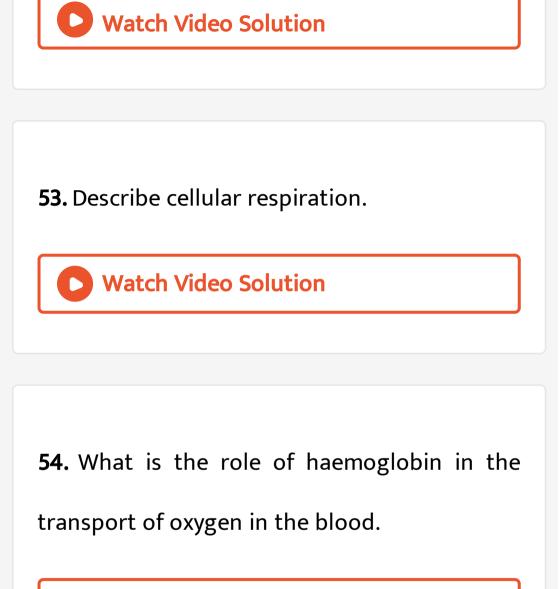
46. What are lung volumes?



49. What is Expiratory Reserve Volume (ERV)?



52. Write a note on Transport of CO_2 .





55. Write a note on chloride shift.



56. While working with the car engine in a closed garage Johan suddenly felt dizzy and fainted. What is the possible reason?



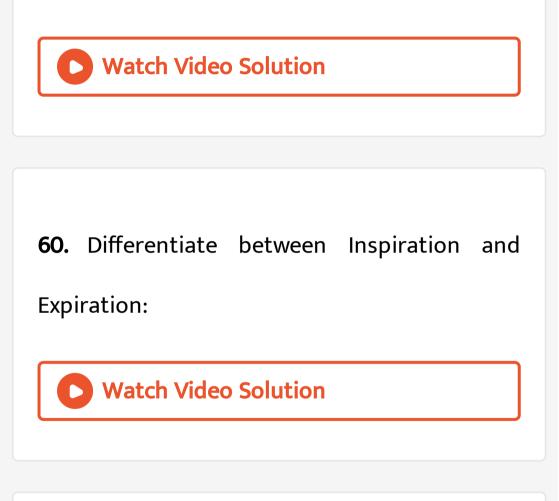
57. Differentiate between Transport of O_2 and

Transport of CO_2 .

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58. Laxmi does various activity like running swimming which involved breathing. Can you explain the regulation of her breathing?

59. Explain Hering-Breuer reflex



61. Why is it advantageous to breathe through

the nose than through the mouth?

62. Given below are the characteristics of some modified respiratory movement.

Spasmodic contraction of muscles of

expiration and forceful expulsion of air

through nose and mouth

An inspiration followed by many short convulsive expiration accompanied by facial expression 63. Given below are the characteristics of some

modified respiratory movement.

Spasmodic contraction of muscles of

expiration and forceful expulsion of air

through nose and mouth

An inspiration followed by many short convulsive expiration accompanied by facial expression

64. A transverse section of the trunk of a tree shows concentric rings which are known as growth rings. How are these rings formed? What is the significance of these rings?

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65. Why is difficult to hold one's breath

beyond a limit?

66. If Sunita is suffering from laryngitis, state the symptoms she have. Also describe the treatment she can take.

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67. Smita was working in a garage with the doors closed and automobiles engine running. After some time she felt breathless and fainted. What could be the reason? How can she be treated?

68. Shreyas went to a garden on a wintry morning. When he came back,he found it difficult to breath and started wheezing.What could be the possible condition and how can he be treated?

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69. State the symptoms and treatment for

Emphysema.





70. State the symptoms and treatment for

Pneumonia.



71. Explain artificial ventilation.



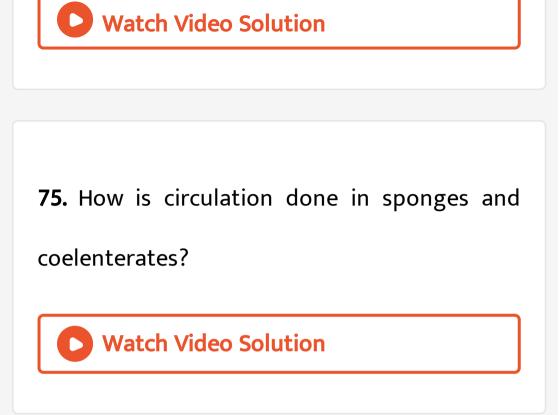
72. Write a short note on: Ventilators



73. Which type of circulation in present in cockroach? How it is different from that of human?



74. What is cyclosis? State examples.



76. Name the type of circulation in flatworms.



77. How does circulation take place in round

worm?

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78. What is the co-relationship between activeness of organism and complexity of transport system.

79. Which types of circulation is present in

amphibians and reptiles?

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80. Enlist organisms without a proper

transport system.



81. Explain the type of circulation in
Arthropods and Mollusca.
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82. Write a short note on: Open Circulatory system.



83. Write a note on closed circulatory system.



84. Give scientific reason.

Closed circulation is more efficient than open

circulation.

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85. What are the two types of closed

circulation?

86. With the help of neat labeled diagram explain single circulation.

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87. Venous heart is an example for which organism. Explain.

88. Differentiate between:

Open circulatory system and closed circulatory

system.



89. Describe Double circulation in detail.



90. Name respiratory pigments present in the

blood of different animals.



91. Find the difference between coelom and haemocoel?



92. What is Hematology?



93. State the functions of blood vascular system?

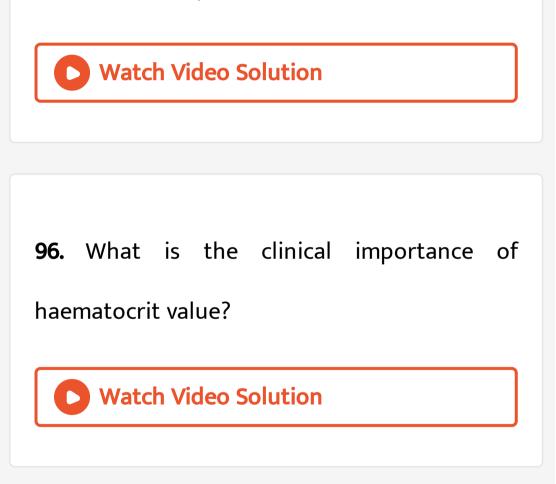
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94. Write a note on blood plasma.

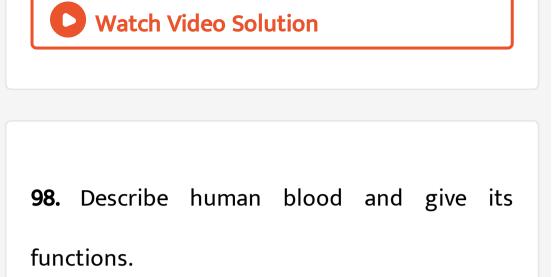


95. Find out the percentage and functions of

different blood proteins.



97. Differentiate between plasma and serum.

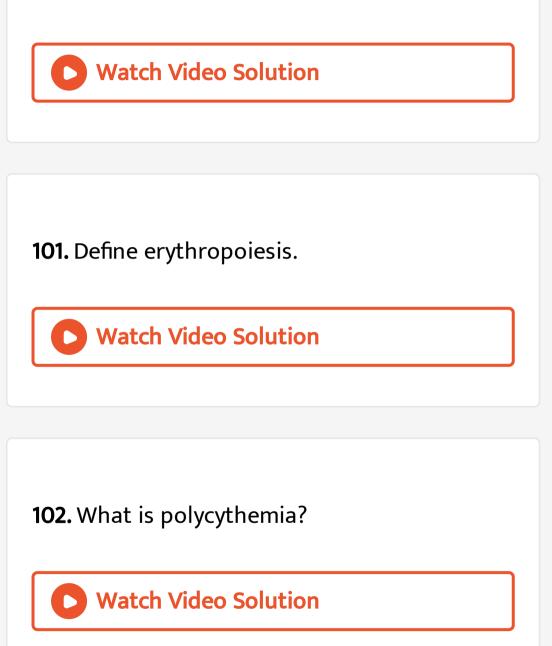


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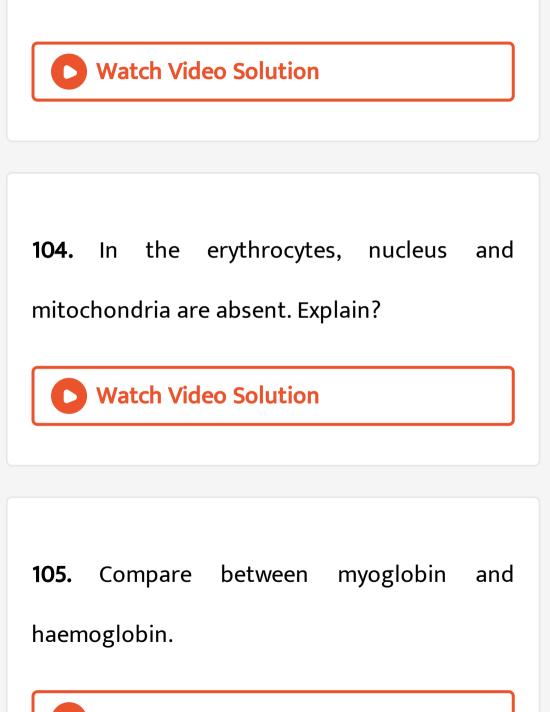
99. Write a note on

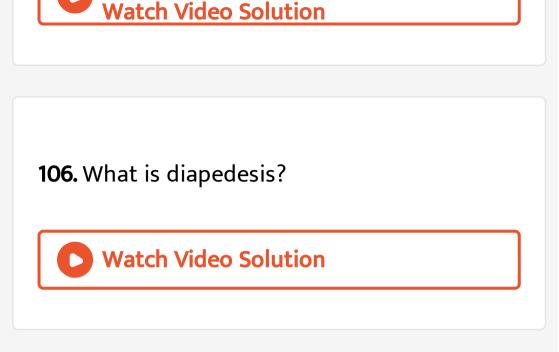
Erythrocytes.

100. Define blood.



103. What is erythrocytopenia?

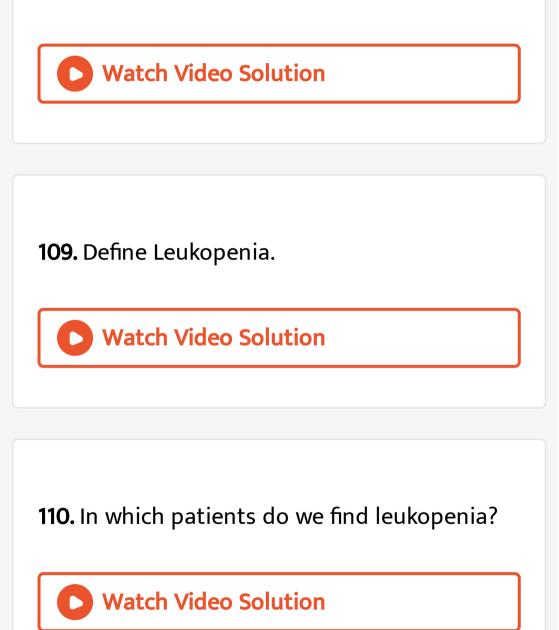




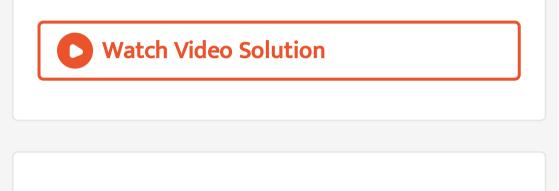
107. Correct the following false statement and rewrite Leucocytes are coloured, enucleated and oval cells larger than RBCs.

108. What is normal adult average count of

WBCs?



111. Define leukocytosis.



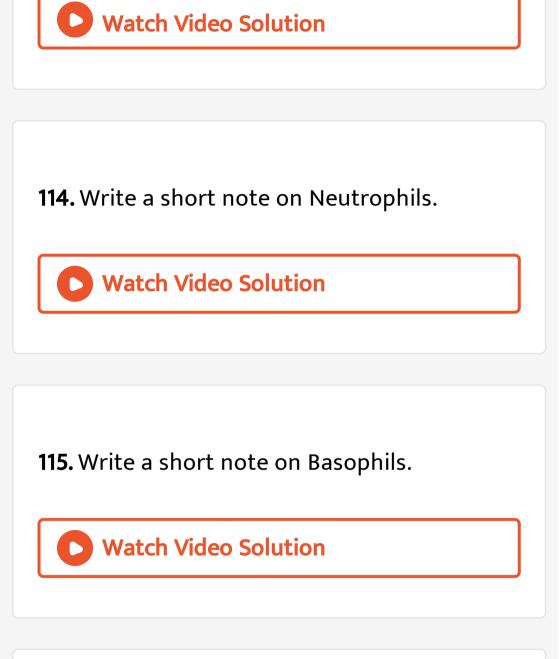
112. In which patients do we find the condition

of leukocytosis?

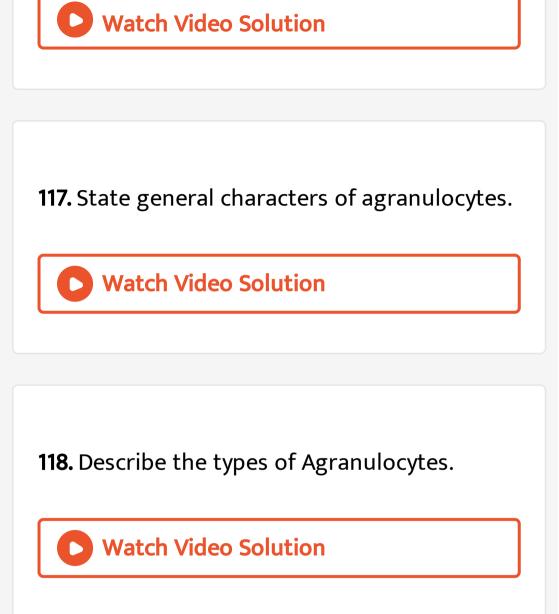
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113. Describe the general characters of

Granulocytes.



116. Write a short note on Eosinophils.



119. Differentiate between Granulocytes and

Agranulocytes

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120. Why and when do the leucocytes perform

diapedesis?



121. What are the granules in granulocytes?

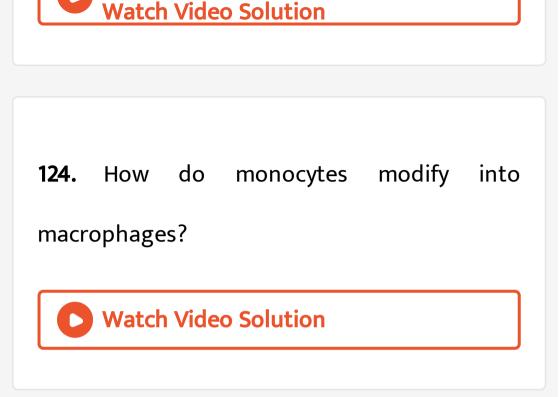


122. What are the reasons for change in number of neutrophils and the importance of completye count (CBC)

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123. Why and when are heparin, histamine and serotonin secreted? Are these biomolecules secreted by any other cell organ in out body?

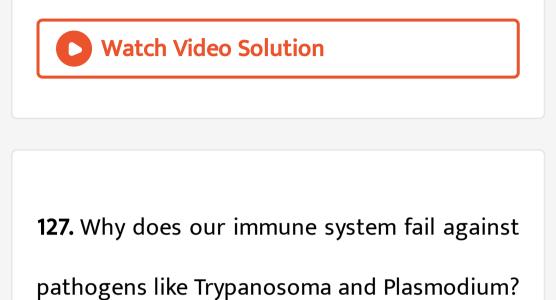




125. How do monocytes perform amoeboid

movement and phagocytosis?

126. What is immunity? Name its types.



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128. What is the relation between immunity

and organ transplantation?

129. What is blood clotting? How and when

does it occur?



130. Explain blood clotting in short.

131. Why does the platelet count decreases in

dengue patient?

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132. Match the columns:

Column A		Column B			Column C	
(i)	Triad	(a)	Lightest and negatively charged particle in all the atoms.	(1)	Mendeleev	
(ii)	Octave	(b)	Concentrated mass and positive charge	(2)	Thomson	
(iii)	Atomic number	(c)	Average of the atomic mass of the first and the third elements	(3)	Newlands	
(iv)	Period	(d)	Properties of the eighth element similar to the first	(4)	Rutherford	
(v)	Nucleus	(e)	Positive charge on the nucleus	(5)	Dobereiner	
(vi)	Electron	(f)	Sequential change in molecular formulae	(6)	Moseley	

133. Distinguish between:

Intrinsic and extrinsic process of clotting.

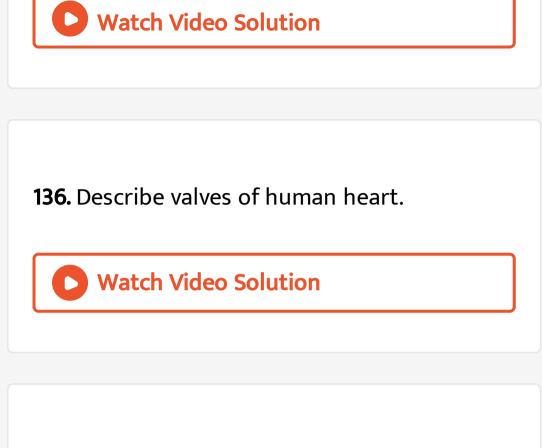
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134. Describe the internal features of human

heart.



135. Describe pericardium.



137. Describe the internal features of human

heart.

138. Describe the internal features of human

heart.

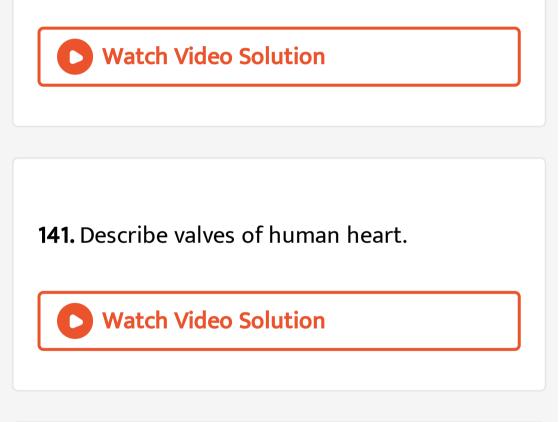


139. Sketch and label internal structure of human heart.



140. What is the role of the papillary muscles

and the chordae tendinae in the human heart?



142. Differentiate between Atria and ventricles

143. What is Cardiology?

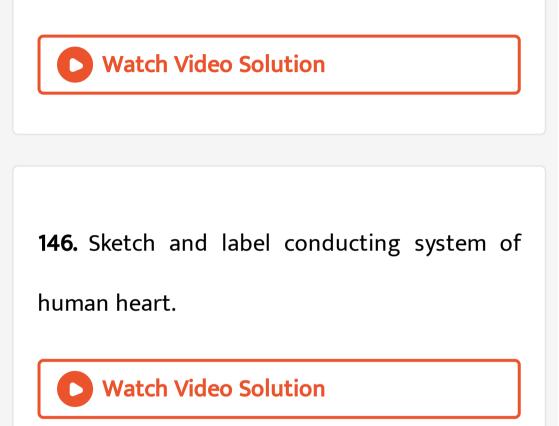
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144. Give scientific reason.

Left ventricle is thick than all other chambers

of heart.

145. Explain the pumping action of the heart.



147. Give scientific reason.

Human heart is called as myogenic and

autorhythmic.

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148. Write a note on

conducting system of human heart.

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149. Sketch and label conducting system of human heart.

150. Write a note on cardiac cycle.

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151. Explain Cardiac output.

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152. Describe arteries and veins.

153. Write a note on capillaries.

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154. Write a note on Portal vein.
Watch Video Solution
155. Write a note on Pulse.

156. Give scientific reason.

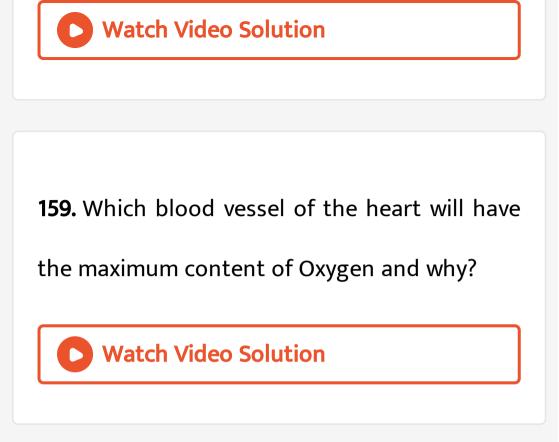
Arteries are thicker than veins.

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157. Defferentiate between arteries and veins

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158. Why do the veins have valves?



160. If the duration of the atrial systole is 0.1 sec and that of complete diastole is 0.4 sec, then how does one cardiac cycle complete in 0.8 sec?





161. How is blood kept moving in the large

veins of the legs?

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162. Describe histological structure of artery,

vein and capillary.

163. Enlist the pulse points throughout the

human body.



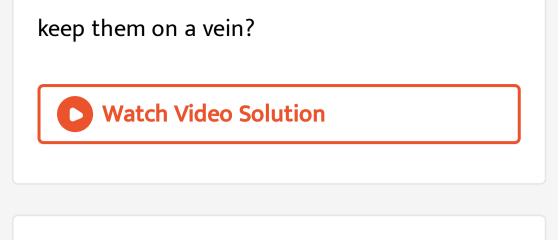
164. man's pulse rate is 68 and cardiac output

is 5500 cm^3 .Find the stroke volume

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165. Why can you feel a pulse when you keep a

finger on the wrist or neck but not when you



166. Distinguish between:

Blood capillary and lymph capillary.

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167. Write a note on arterial blood pressure.

168. What is blood pressure? How is it measured? Explain factors affecting blood pressure.



169. Explain in brief the factors affecting blood

pressure.

170. Arun went to the doctor for normal checkup. During the checkup the doctor took his blood pressure. Name the instrument of describe it.

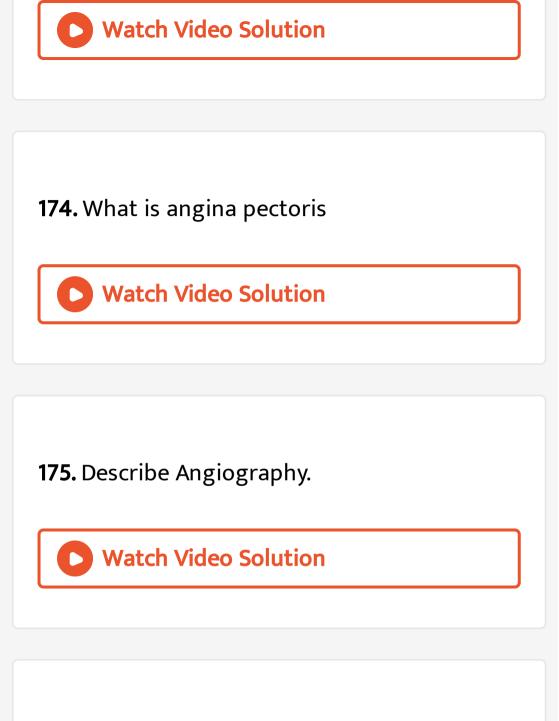
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171. The cardiologist informed Juhi that her blood pressure is 180/120mmHg. He said this reading was dangerous to health. What is the

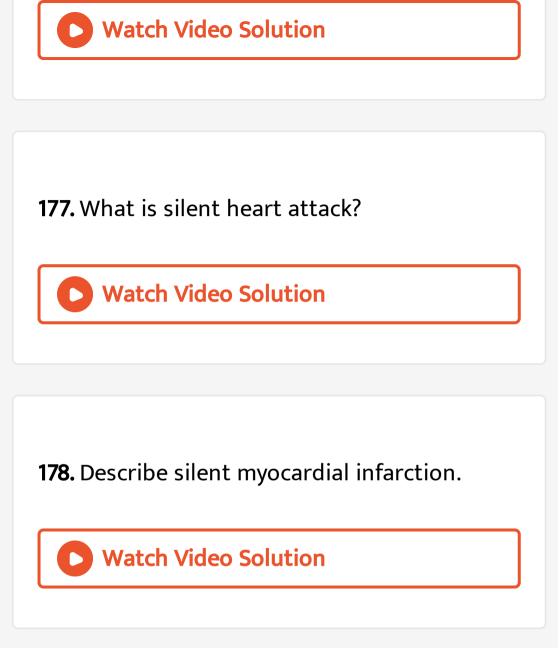
reason for her higher reading of blood pressure? Explain. Watch Video Solution 172. Why do obese persons are prone to hypertension? Watch Video Solution

173. Write short notes on the following.

Coronary Artery Disease



176. Define heart transplant.



179. Why the heart-recipient has to rely upon

lifetime supply of immunosuppressants?

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180. Why the heart-recipient has to rely upon

lifetime supply of immunosuppressants?

181. Why the transplanted heart beats at a

higher rate than normals?



182. Who discovered ECG?

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183. What is depolarization and repolarization?

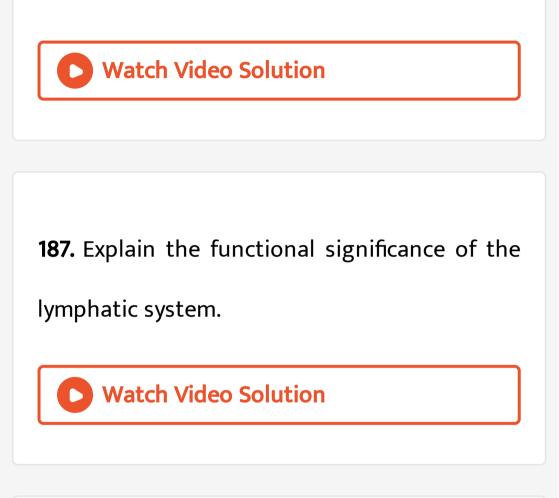
184. What is the correlation between depolarization and repolarization as well as contraction and relaxation of the heart?

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185. How are the signals detected and

amplified by electrocardiograph?

186. Location of lymph nodes in human body.



188. Distinguish between:

Blood and lymph.





189. Identify the incorrect statement and correct it,

A. Respiratory surface should have large surface area

B. Respiratory surface area should be kept

dry

C. Respiratory surface are should be thin

maybe 1mm or less

Answer:

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190. Find incorrect statement.

A. Maximum Saturation of 40 to 60% is at

 PPO_2 in alveoli (100 mmHg)

B. At 30mm Hg of PPO_2 only 50%

Saturation can be maintained

C.

D.

Answer:



191. Identify the incorrect statement and correct it,

A. Get oxygen into tissue

B. Remove carbon dioxide from tissue

C. Help the patient breathe

D.

Answer:





1. The muscular structure that separated the

thoracic and abdominal cavity is....

A. Pleura

- B. Diaphragm
- C. Trachea
- D. Epithelium

Answer:



2. What is the minimum number of plasma membrane that oxygen has to diffuse across

to pass from air in the alveolus to

haemoglobin inside a R.B.C.?

A. two

B. three

C. four

D. five

Answer:

3. is a sound producing organ,

A. Larynx

B. pharynx

C. Tonsils

D. Trachea

Answer:

4. The maximum volume of gas that is inhale during breathing in addition to T.V. is.......

A. Residual volume

B. I.R.V

C. G.R.V

D. vital capacity

Answer:

5. Muscles contract when the external

intercostal muscles contract

A. Internal abdominal

B. Jaws

C. Muscles in bronchial wall

D. Diaphragm

Answer:

6. Movement of cytoplasm in unicellular

organisms is called.....

A. Diffusion

B. cyclosis

C. circulation

D. thrombosis

Answer:

7. Which of the following animals do not have

closed circulation?

A. Earthworm

B. Rabbit

C. Butterfly

D. Shark

Answer:

8. Diapedesis is performed by.....

A. Erythrocytes

B. thrombocytes

C. adipocytes

D. leucocytes

Answer:

9. Pacemaker of heart is

A. SA node

B. AV node

C. HIS bundle

D. Purkinje fibers

Answer:

10. Which of the following is without nucleus?

A. Red Blood corpuscles

B. neutrophil

C. Basophil

D. lymphocyte

Answer:

11. cockroach shows which kind of circulatory

system?

A. Open

B. closed

C. Lymphatic

D. Double

Answer:

12. Diapedesis can be seen in Cell.

A. RBC

B. WBC

C. Platelet

D. neuron

Answer:

13. Opening of inferior vena cava is guarded by

A. Biscupid valve

B. tricuspid valve

C. Eustachian valve

D. Thebasian valve

Answer:

depolarization.

A. P

- B. QRS complex
- C. Q
- D. T

Answer:



15. The fluid seen in the intercellular spaces in

Human is....

A. Blood

B. lymph

C. interstitial fluid

D. water

Answer:

16. Select the correct alternative and write the

answer: Erythrocytes of the foetus are formed

in _____

A. Kidney

B. Liver

C. Pancreas

D. Bone marrow

Answer:

17. Select the correct alternative and write the

answer: During systole_____

A. blood leaves the ventricle

B. blood enters lungs

C. blood leaves the heart

D. blood enters the heart

Answer:

18. Select the correct alternative and write the answer: Thickening of arterial wall and loss of its elasticities is

A. Atherosclerosis

B. Arteriosclesrosis

C. Aneurysm

D. Ligamentum auteriosm

Answer:

19. Answer the following questions: Name any

one main lymphatic duct.

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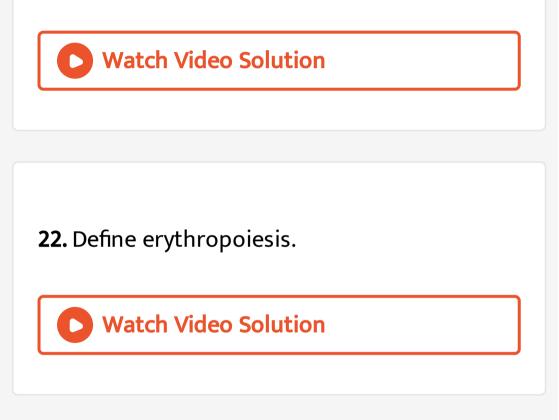
20. Answer the following questions: Name any

pace maker of human heart.



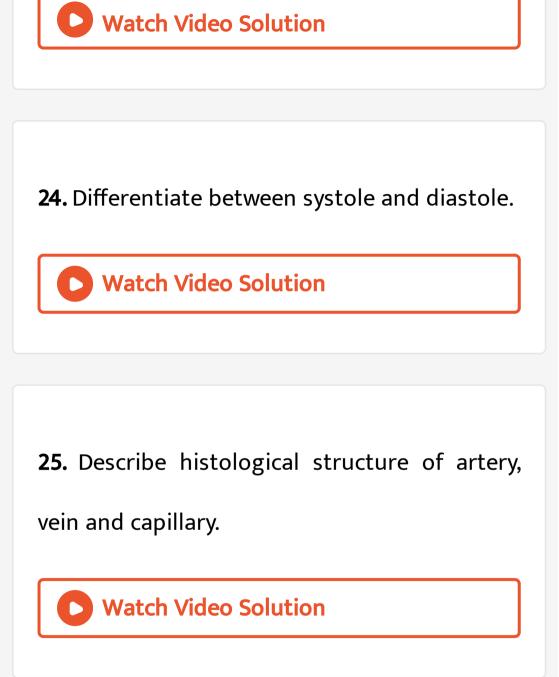
21. Answer the following questions: Where is

mitral valve present in the heart?

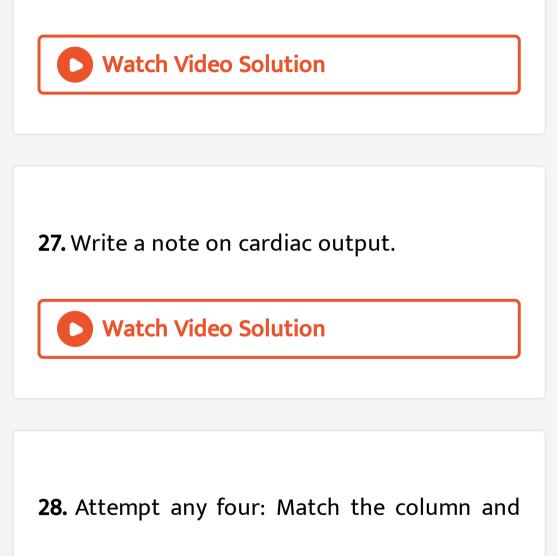


23. Answer the following questions: Name the

vessel having single layer of endothelium.



26. Write a note on Angina Pectoris.



rewrite.

Column "A"		Column "B"	
(i)	Sponges	(a)	Tracheal tubes and spiracles
(ii)	Insects	(b)	External gills
(iii)	Amphibian tadpole	(c)	Book lungs
(iv)	Scorpions	(d)	Plasma membrane

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29. Write a note on arterial blood pressure.

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30. Sketch and label conducting system of human heart.





heart.



32. Describe valves of human heart.