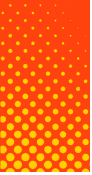




India's Number 1 Education App



# BIOLOGY

## BOOKS - VGS BRILLIANT BIOLOGY (TELUGU ENGLISH)

### RESPIRATION

Improve Your Learning Conceptual  
Understanding

1. Distinguish between Inspiration and Expiration



**Watch Video Solution**

2. Distinguish between Aerobic and Anaerobic respiration



**Watch Video Solution**



3. Respiration is energy producing process in the organisms . It takes place both in the presence and absence of oxygen. Laxmi said there are some differences between the two processes . How do you support her ?



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4. Distinguish between Respiration and Combustion



**Watch Video Solution**

5. Even though both are oxidation processes, combustion and respiration are different in many aspects. Explain those differences .



**Watch Video Solution**

6. Distinguish between Respiration and Combustion



**Watch Video Solution**

7. Distinguish between Photosynthesis and Respiration



**Watch Video Solution**

8. Difference between food preparation process - energy releasing process.



**Watch Video Solution**

9. Distinguish between Photosynthesis and Respiration



**Watch Video Solution**

**10.** State two similarities between aerobic and anaerobic respiration.



**Watch Video Solution**

**11.** State two similarities between aerobic and anaerobic respiration.



**Watch Video Solution**

**12.** Food sometimes enters the wind pipe and causes choking. How does it happen ?



**Watch Video Solution**

**13.** Food sometimes enters the wind pipe and causes choking. How does it happen ?



**Watch Video Solution**

**14.** Why does the rate of breathing increase while walking uphill at a normal pace in the mountains ? Give two reasons.



**Watch Video Solution**

**15.** "Air leaves the tiny sacs in the lungs to pass into capillaries." What modification is needed in the statement ?



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**16.** All plants give out oxygen during day carbon dioxide during night . Do you agree with this statement ? Give reason



**Watch Video Solution**

**17.** Why does a deep sea diver carry oxygen cylinder on his/her back?



**Watch Video Solution**

**18.** How are alveoli designed to maximise the exchange of gases ?



**Watch Video Solution**

**19.** Where will the release of energy from the glucose in respiration take place ' ? Mala writes lungs , while Jiya writes muscles . Who is correct and why?



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**20.** What is the role of epiglottis and diaphragm in respiration ?



**Watch Video Solution**

**21.** How does gaseous exchange take place at blood level ?



**Watch Video Solution**

**22.** Explain the mechanism of gaseous exchange at bronchiole level.



**Watch Video Solution**

**23.** After undergoing strenuous exercise we feel pain in muscles, does adequate oxygen reach the muscles ?



**Watch Video Solution**

**24.** Priyadarshini while playing Kho-Kho, she got muscle pain. What might be the reasons for it ?



**Watch Video Solution**

**25.** Raju said , " Stems also respire along with leaves in plants ". Can you support this statement ? Give your reasons



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# Improve Your Learning Asking Question And Making Hypothesis

1. What will happen, if there is no diaphragm in the human body?



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2. if you have a chance to meet pulmonologist , what questions are you going to ask about pulmonary respiration ?



**Watch Video Solution**

3. if you have a chance to meet pulmonologist , what questions are you going to ask about pulmonary respiration ?



**Watch Video Solution**

**Improve Your Learning Experimentation And Field Investigation**

1. What procedure do you follow to understand anaerobic respiration in your

school laboratory ?



**Watch Video Solution**

2. What procedure do you follow to understand anaerobic respiration in your school laboratory ?



**Watch Video Solution**

3. How do yeast cells convert glucose solution to  $CO_2$  and ethyl alcohol ?



**Watch Video Solution**

**4.** What are your observations in combustion of sugar activity ?



**Watch Video Solution**

**Improve Your Learning Information Skills And Projects**

1. Collect information about cutaneous respiration in frog. Prepare a note and explain them in your classroom.



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2. How does frog respire with the help of skin



**Watch Video Solution**



3. Collect information about respiratory diseases (because of pollution, tobacco ) and discuss with your classmates.



**Watch Video Solution**

## Improve Your Learning Communication Through Drawing Model Making

1. What is the pathway of air from nostril to alveolus ?



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2. Draw a block diagram showing events in respiration . Write what you understood about cellular respiration :



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**Improve Your Learning Appreciation And  
Aesthetic Sense Values**

1. How do you appreciate the mechanism of respiration in our body ?



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**Improve Your Learning Application To Daily Life  
Concern To Biodiversity**

1. Prepare an article on anaerobic respiration to present school symposium



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2. Prepare a cartoon on discussion between haemoglobin and chlorophyll about respiration.



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## Question Given In The Lesson 1 Mark Questions

1. What gas was produced by combustion according to Lavoisier ?



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2. What did Lavoisier find out about air from the experiments ?



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3. What conclusion can be drawn from Lavoisier's experiments ?



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4. Which gas do you think is Lavoisier talking about when he says chalky acid gas ?



**Watch Video Solution**

5. Which gas according to Lavoisier is respirable air ?



**Watch Video Solution**

6. It is a common observation that our breath is warmer than the air around us , does respiration have anything to do with this ?



**Watch Video Solution**

7. What does this experiment indicate ?



**Watch Video Solution**

8. Which gas turns lime water milky ?



[Watch Video Solution](#)

9. Which gas do you think might be present in greater quantities ?



[Watch Video Solution](#)

10. We are also aware of the fact that water vapour deposits on a mirror if we breathe out on it , where does this water vapour come from in Exhaled air ?







[Watch Video Solution](#)

**11.** Why are we advised not to talk while eating food ?



[Watch Video Solution](#)

**12.** What can be concluded from this?



[Watch Video Solution](#)

**13.** What happens during the process of breathing?



**Watch Video Solution**

**14.** Which gas needs to be removed from our body during exhalation? Where does the extra amount of gas come from ?



**Watch Video Solution**

**15.** What is the composition of inhaled air?



**Watch Video Solution**

**16.** When exhaled air is compared with inhaled air, is there any difference in composition ?



**Watch Video Solution**

**17.** Why does the amount of oxygen vary between exhaled and inhaled air ?



[Watch Video Solution](#)

**18.** What has raised the percentage of carbon dioxide in exhaled air?



[Watch Video Solution](#)

**19.** After undergoing strenuous exercise we feel pain in muscles, does adequate oxygen reach the muscles ?



[Watch Video Solution](#)

**20.** What is being formed in the muscles ?



**Watch Video Solution**

**21.** In which set does the colour change faster  
? Why ?



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**Question Given In The Lesson 2 Mark Questions**

1. Can it be said that Priestly's experiment helped us to find out more about composition of air ? How ?



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2. What steps in the process of respiration does Lavoisier mention ?



**Watch Video Solution**

3. What is the role of diaphragm and ribs in respiration ? Are both active in man and woman?



**Watch Video Solution**

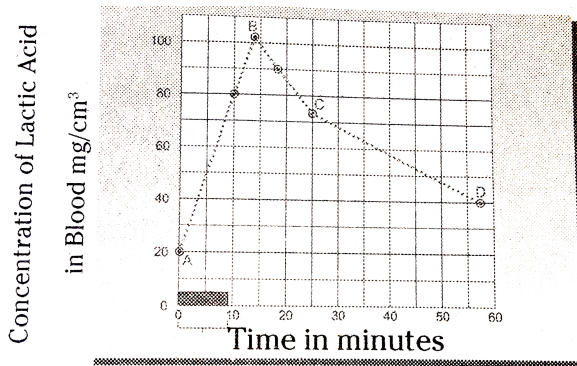
4. Do cells of alveoli or lungs also require oxygen to carry out cellular respiration ? Why / Why not ?



**Watch Video Solution**

## Question Given In The Lesson 4 Mark Questions

1. Observe the following graph and answer the questions given below .



***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

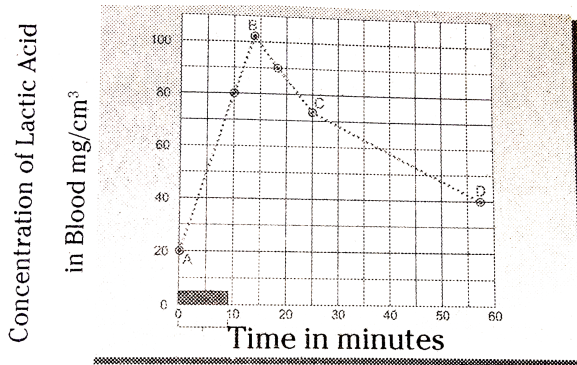
What was the concentration of lactic acid in the blood to start with ?



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2. Observe the following graph and answer the questions given below .



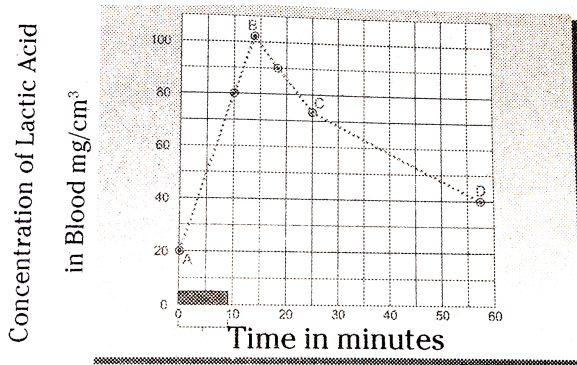
***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

What was the greatest concentration reached during the experiment ?



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3. Observe the following graph and answer the questions given below .



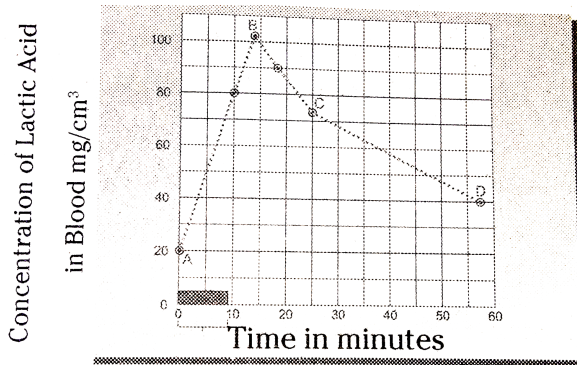
***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

What are the consequences of oxygen deficit ?



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4. Observe the following graph and answer the questions given below .



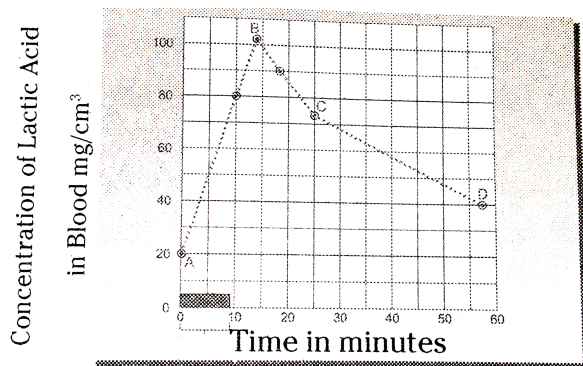
***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

What does high level of lactic acid indicate about the condition of respiration ?



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5. Observe the following graph and answer the questions given below .



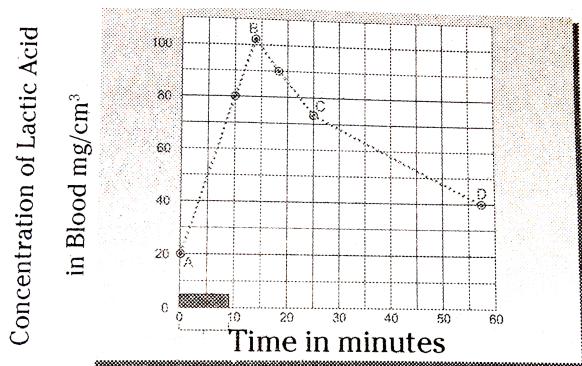
***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

What are the two aspects discussed through graph ?



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6. Observe the following graph and answer the questions given below .



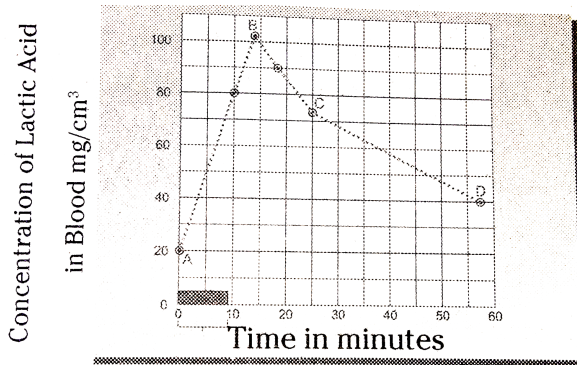
***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

In which state lactic acid concentration is more ?



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7. Observe the following graph and answer the questions given below .



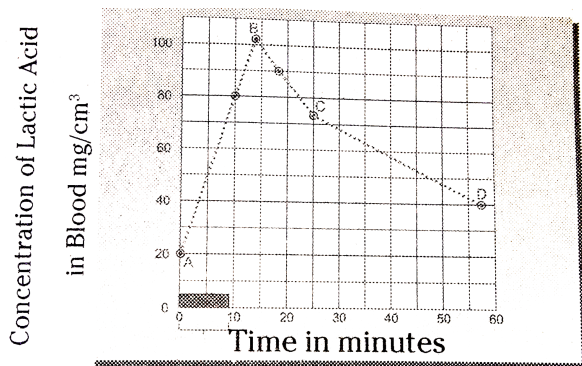
***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

Why oxygen deficit in muscles of running  
Athlet ?



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8. Observe the following graph and answer the questions given below .



***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

What are the consequences of oxygen deficit ?



**Watch Video Solution**

**Think Discuss**

1. What will happen if the respiratory tract is not moist ?



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2. Are both lungs similar in size ?



**Watch Video Solution**

3. Why are alveoli so small and uncountable in number ?



**Watch Video Solution**



## Fill In The Blanks

1. Exhaled air contains \_\_\_ and \_\_\_



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2. A flap like muscular valve controls movement of air and food is \_\_\_\_\_



**Watch Video Solution**

3. Energy currency of the cell is called \_\_\_\_



**Watch Video Solution**

4. Lenticels are the respiratory organs that exist in \_\_\_\_ part of the plant.



**Watch Video Solution**

5. Mangrove trees respire with their \_\_\_\_\_



**Watch Video Solution**

## Choose The Correct Answer

1. We will find vocal cords in

A. Larynx

B. Pharynx

C. Nasal cavity

D. Trachea

**Answer: a**





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2. Cluster of air sacs in lungs are called

- A. Alveoli
- B. Bronchi
- C. Bronchioles
- D. Air spaces

**Answer: a**



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**3. Which of the following is correct ?**

(i)The diaphragm contracts - volume of chest cavity increased

(ii)The diaphragm contracts - volume of chest cavity decreased

(iii)The diaphragm expands - volume of chest cavity Increased

(iv)The diaphragm expands - volume of chest cavity decreased

A. i

B. I and ii

C. ii and iii

D. iv

**Answer: a**



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**4.** Respiration is a catabolic process because of

A. Breakdown of complex food molecules

B. Conversion of light energy

C. Synthesis of chemical energy

D. Energy storage

**Answer: a**



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**5. Energy is stored in**

A. Nucleus

B. Mitochondria

C. Ribosomes

D. Cell wall

**Answer: b**



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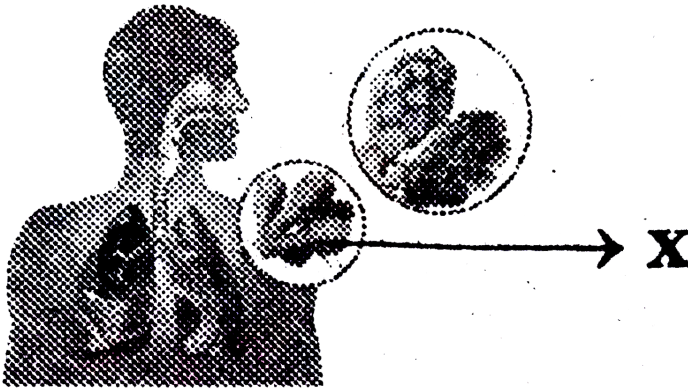
## **Creative Questions For New Model Paper 1 2 Mark Questions**

**1. What does this experiment indicate ?**



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2.

Name the labelled part 'x' in the above figure.



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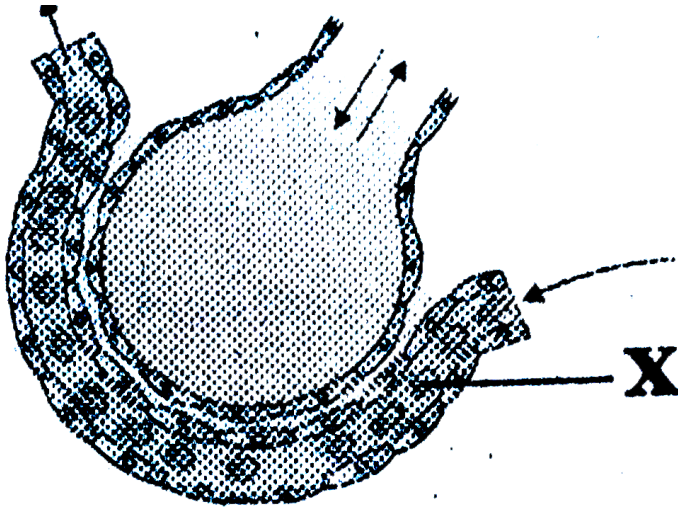


3.

What is the function of labelled part 'x' in the above figure ?



**Watch Video Solution**

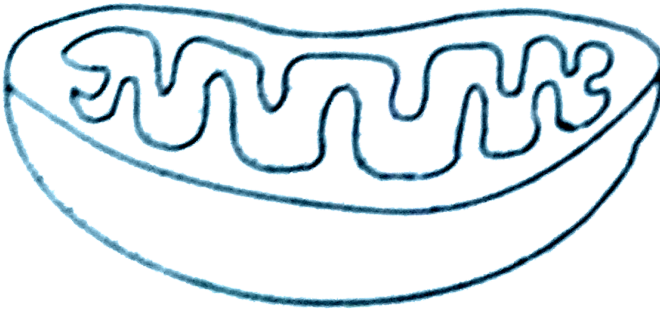


4.

The labelled part 'x' in the above figure denotes.



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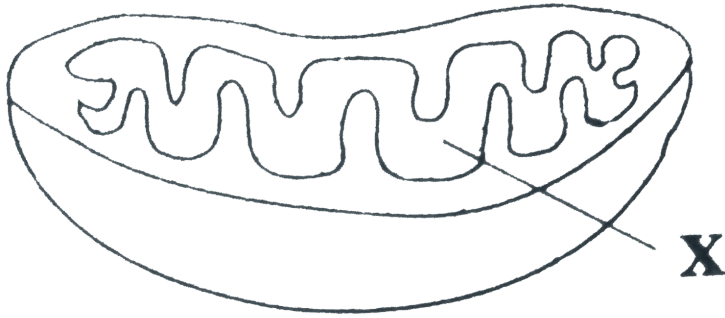


5.

The above shown figure , with which it is associated ?



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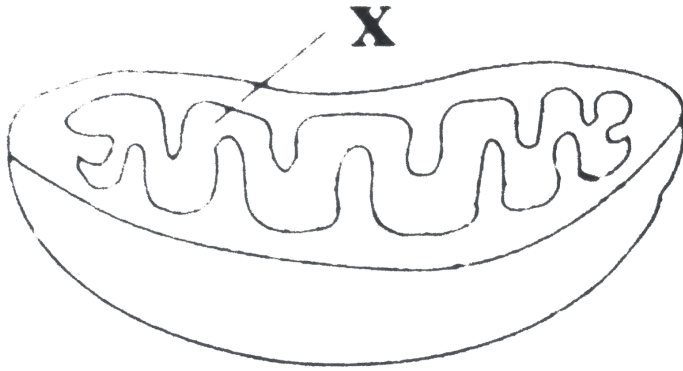


6.

Name the labelled part 'x' in the above figure.



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7.

Name the labelled part 'x' in the above figure.



**Watch Video Solution**

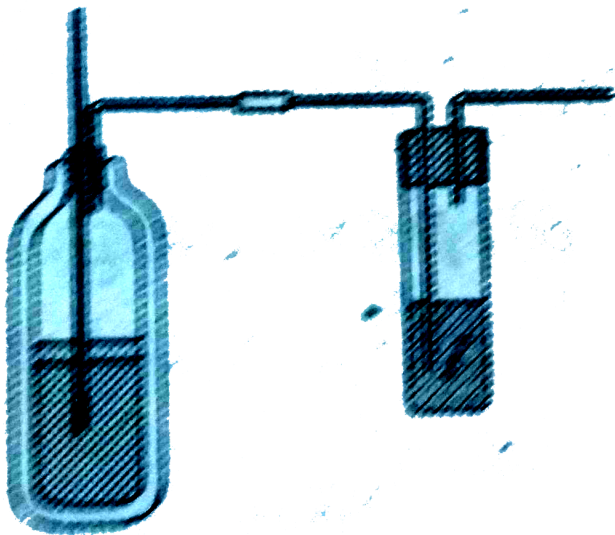


8.

Why did this athlete get muscle cramps after his running race ?



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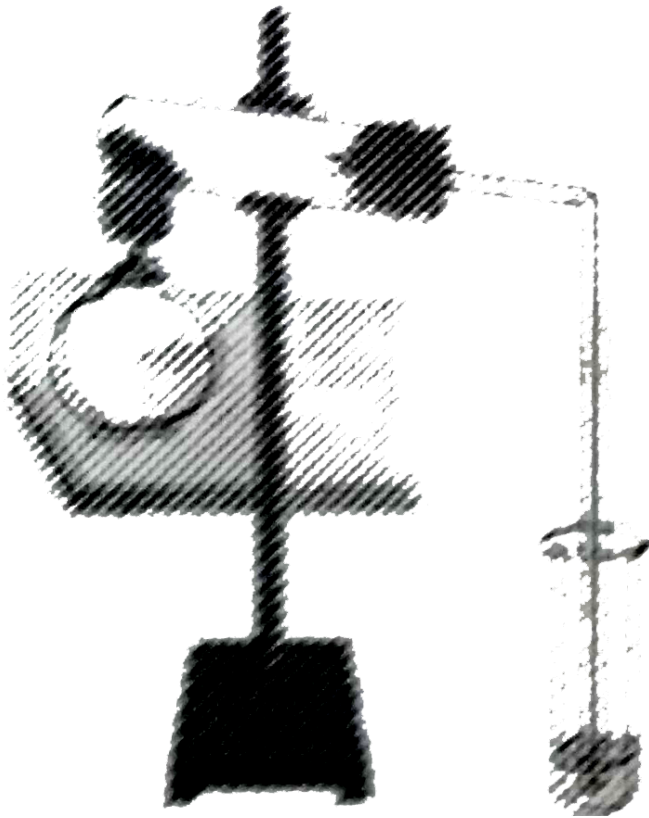
9.

What is the aim of this experiment ?



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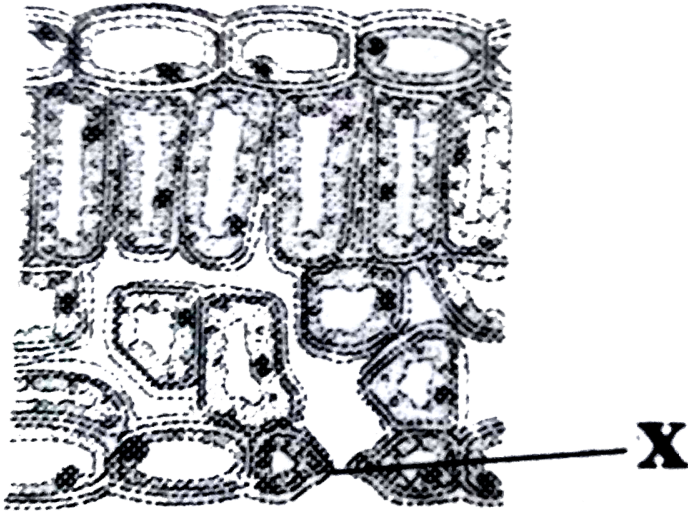


10.

What do you prove from this experiment ?



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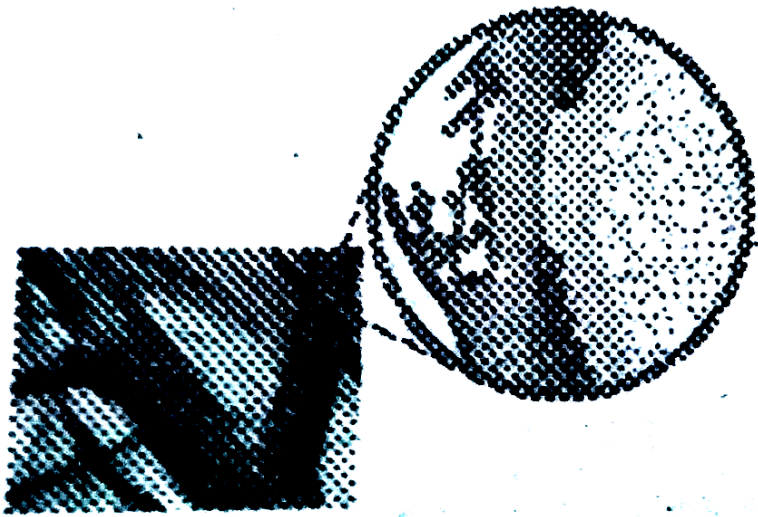


11.

What is the function of the labelled part 'x' in the above figure ?



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12.

Identify these respiratory structures on woody stems



**Watch Video Solution**



13.

In which plants can you observe these structures ?



**Watch Video Solution**



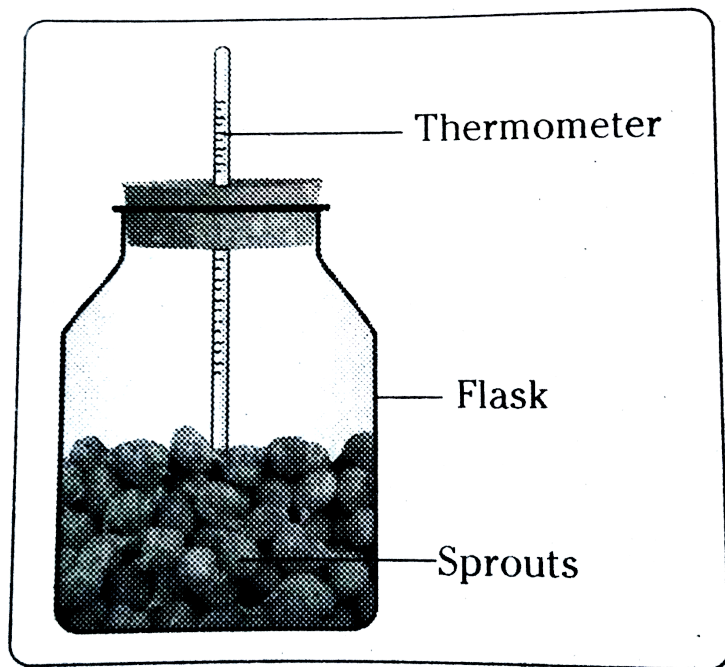
14.

Which gas in this experiment turns the lime water milky ?



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15. In your opinion , where did this heat come from ?



**Watch Video Solution**

**16.** Identify the mismatched pairs.

(1) Frog -Skin

(2) Cockroach -Diffusion

(3) Amoeba - Trachea



**Watch Video Solution**

**17.** Identify the mismatched pairs .

(1) Respiratory roots - Mangrove plants

(2) Hollow stems - Hydrophytes

(3) Storage roots - Xerophytes





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**18.** Identify the mismatched pair.

(1) ATP-Energy currency

(2) Mitochondria - Power house of the cell

(3) Lactic acid -Ethanol.



[Watch Video Solution](#)

**19.** Identify the mismatched pair

(1) Fish-Gills



(2)Grasshopper - Skin

(3)Whale - Lungs



**Watch Video Solution**

**20.** I am a red coloured pigment present in the blood . I help in the transportation of gases .

Who am I ?



**Watch Video Solution**

21. I can undergo anaerobically and can convert glucose into ethanol. Who am I ?



**Watch Video Solution**

22. I occur when 'oxygen debt ' arises in muscles . I cause muscle cramps. Who am I ?



**Watch Video Solution**

**23.** I am a flap like structure , arresting the entry of food into respiratory tract. Who am I ?



**Watch Video Solution**

**24.** Complete the following blanks .

\_\_\_\_\_ (1) play a major role in coagulation of blood \_\_\_\_ (2) helps in transportation of respiratory gases .



**Watch Video Solution**

**25.** Complete the following blanks

\_\_\_\_(1) is the site of cellular respiration. It is also known as \_\_\_\_ (2)



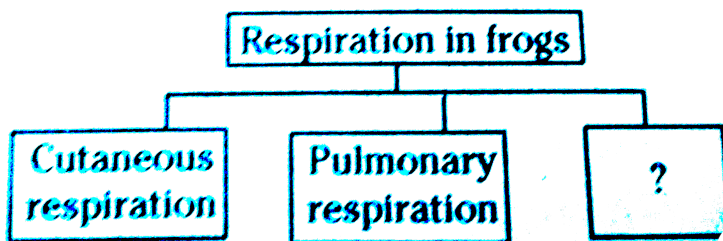
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**26.** In marshy areas we can observe \_\_\_\_ (1) roots in the plants. These roots have \_\_\_\_ (2) which connect the stems with roots, making diffusion from the upper part much more effectively .



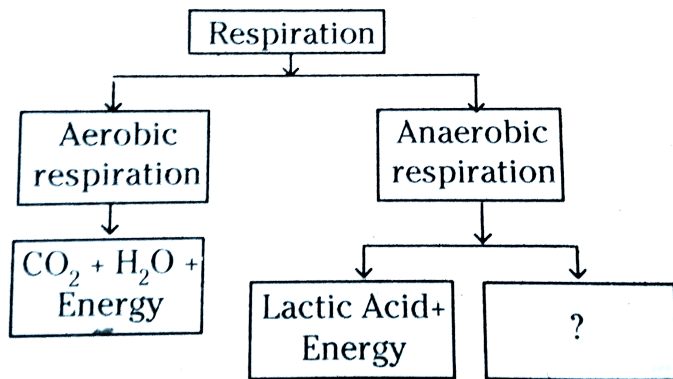
**Watch Video Solution**

27. Observe the flow chart and complete the blanks .



**Watch Video Solution**

28. Observe the flow chart and complete the blanks .



**Watch Video Solution**

**29. Identify the scientist**

He conducted many experiments on the properties of gases. He identified  $CO_2$  and he called it as fixed gas.



**Watch Video Solution**

**30. Identify the scientist**

He was a renowned chemist. He wrote a textbook of "Human physiology " in the mid - 19th century .



**Watch Video Solution**

**31. I am the structural and functional unit of lung. Who am I ?**



**Watch Video Solution**

**32. Expand A. T.P.**



**Watch Video Solution**

**33. Identify the scientist**

He stated that respiration is a type of combustion and combustion is the source of heat in animals .



**Watch Video Solution**



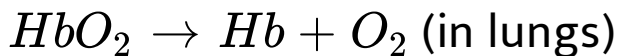
**34.** Identify the scientist .

He wrote in a compilation in 1783, "respiration is a combustion process. It is a very slow process and here oxygen is not only combines with carbon but also with hydrogen ."



**Watch Video Solution**

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



Watch Video Solution

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

In prokaryotes, cellular respiration occurs in matrix.



Watch Video Solution

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

During cellular respiration the energy is produced . It is stored as ATP in the form of carbon bonds.



**Watch Video Solution**

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

At a height of 13 km , the concentration of oxygen is much lower about  $\frac{1}{6}$ th at sea level.



**Watch Video Solution**

**39.** If oxygen is not utilised, pyruvic acid is converted in to either \_\_\_ (1) or \_\_\_ (2) and very little amount of energy is liberated.



**Watch Video Solution**

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

Diaphragm plays an important role in the respiratory movements in women



**Watch Video Solution**

**41.** Which of the following group constitute the right pathway of gases in the respiratory system ?

A. Nostrils → Nasal cavity → Larynx →

Pharynx → Bronchus → Trachea →

Bronchioles → Alveolus → Blood

B.Nostrils → Nasal cavity → Pharynx →

Larynx → Trachea → Bronchus →

Bronchioles → Alveolus → Blood



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**42.** Which of the following group represent the correct sequence of steps in respiration

A.Breathing → Gaseous exchange at lungs  
→ Gaseous exchange at tissue level → Gas

transport by blood → Cellular respiration .

B. Breathing → Gaseous exchange at lungs

→ Gas transport by blood → Gaseous  
exchange at tissue level → Cellular  
respiration .



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**43.** Observe the following placards . In which  
occasion do you use them ?

Smoking is injurious  
to health

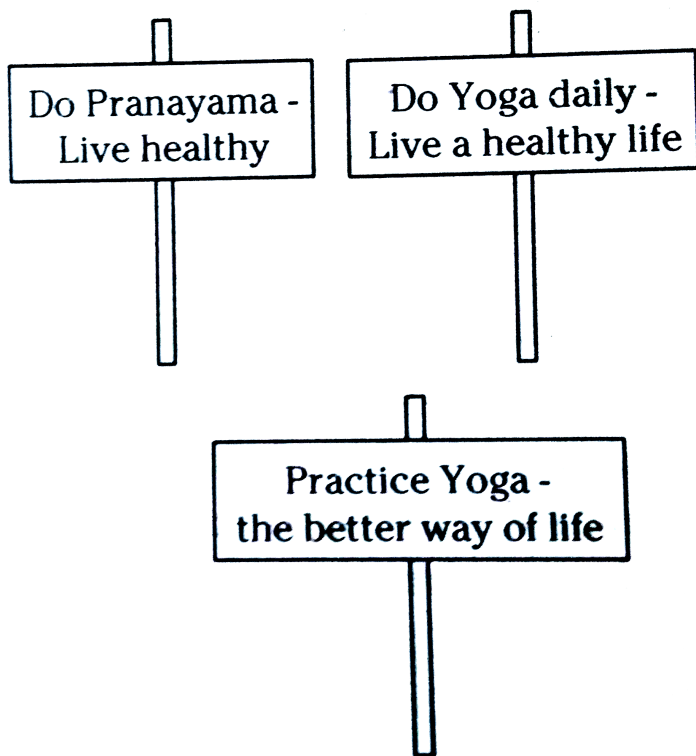
Breathe fresh air -  
Protect your lungs

Tobacco smoking -  
Causes cancer



**Watch Video Solution**





44.

Observe the following placards . On which occasion do you use them in your school ?



**Watch Video Solution**

**45. Man : Lungs , Fish : ?**



**Watch Video Solution**

**46. Lenticels : Hard woody stems , Respiratory roots : ?**



**Watch Video Solution**

**47. Males : Diaphragm , Females : ?**



**Watch Video Solution**

**48. Brain : Meninges , Lungs : ?**



**Watch Video Solution**

**49. Sites of photosynthesis : Chloroplasts ,  
Sites of cellular respiration : ?**



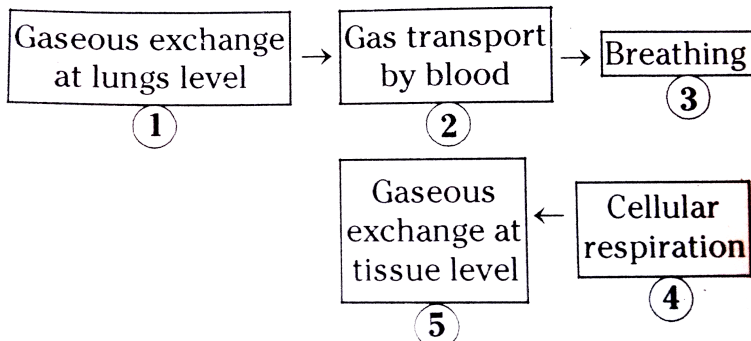
**Watch Video Solution**

**50. ATP : Energy Currency , Mitochondria : ?**



Watch Video Solution

51. Arrange the flow chart in correct order.



Watch Video Solution

52. I am the site of cellular respiration . I also known as "the power house of the cell " . Who

am I ?



**Watch Video Solution**

**53.** I am known as "energy currency " Who am I ?



**Watch Video Solution**

**54.** I am a process through which alcohol, dough are prepared . I occur in the absence of oxygen . Who am I ?



**Watch Video Solution**

**55.** I am an indicator . I am used to detect the presence of oxygen . Who am I ?



**Watch Video Solution**

**56.** I am the mode of respiration in unicellular , Hydra and planarians . Who am I ?



**Watch Video Solution**

**57.** I am a type of respiratory system present in most of the arthropods like grasshopper and cockroach . Who am I ?



**Watch Video Solution**

**58.** I am a mode of respiration. I am present in aquatic animals like fishes . Who am I ?



**Watch Video Solution**

**59.** I am present in leaf . I am very useful in gaseous exchange . Who am I ?



**Watch Video Solution**

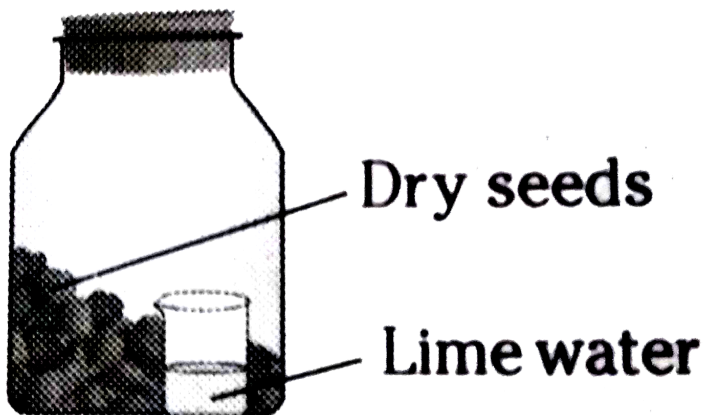
**60.** Complete the blanks .

\_\_\_\_(1) stems are present in aquatic plants  
. \_\_\_\_ (2) are present to reduce their weight on  
water.



**Watch Video Solution**





61.

Observe the above experimental setup. The student had committed a mistake in arranging the apparatus. What was it ?



**Watch Video Solution**



Thermometer

Sprouting seeds

62.

Identify the mistake in the experimental setup.



Watch Video Solution

63. I am the respiratory substrate. I am oxidised during respiration. Who am I ?



Watch Video Solution

**64.** I am the structural and functional unit of lung. Who am I ?



**Watch Video Solution**

**65.** I am a respiratory gas. I can turn the lime water milky. Who am I ?



**Watch Video Solution**

**66.** I can perform three types of respiration.

I can perform respiration through skin, lungs and bucco - pharyngeal cavity . Who am I ?



**Watch Video Solution**

**67.** Where do we observe aerial roots ?



**Watch Video Solution**

**68.** Vamsi conducted the experiment shown in the diagram. The temperature in thermometer rises. What is the aim of this experiment ?



**Watch Video Solution**

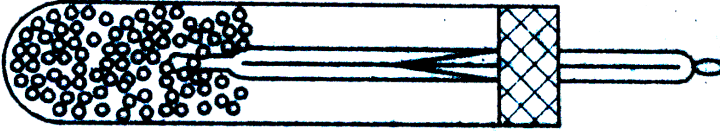
**69.** Which of the following are essential to conduct the experiment to prove that heat is liberated during respiration ?

(i)Flask , (ii)Thermometer , (iii) Cork ,  
(iv)Sprouting seeds , (v)Lime water , (vi)Dry seeds.



**Watch Video Solution**

**70.** The following alternative apparatus arrangement is to prove \_\_\_\_



**Watch Video Solution**

71. Identify the scientist. " Respiration was a process like combustion"



**Watch Video Solution**

72. What is the role of Janus Green -B indicator in anaerobic experiment with yeast ?





Watch Video Solution



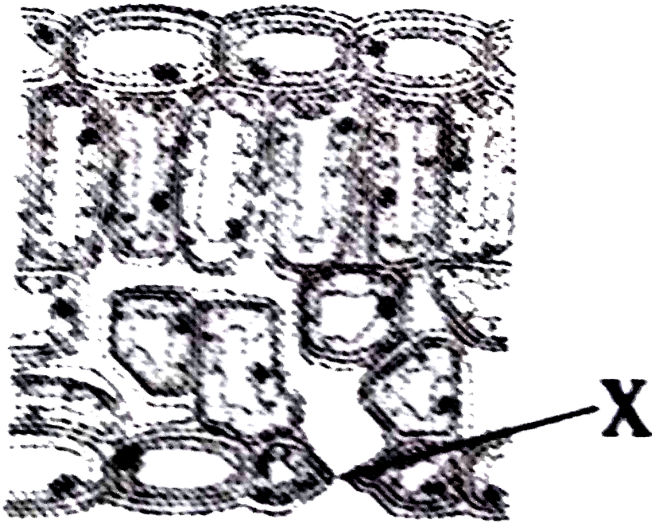
73.

Identify the given figure.



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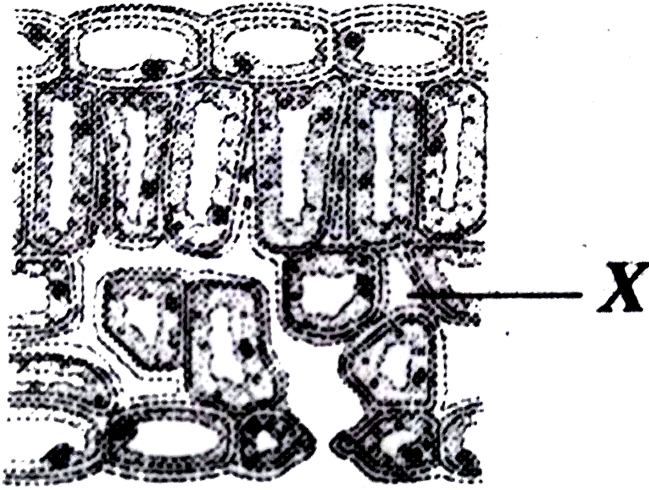


74.

Identify 'X'



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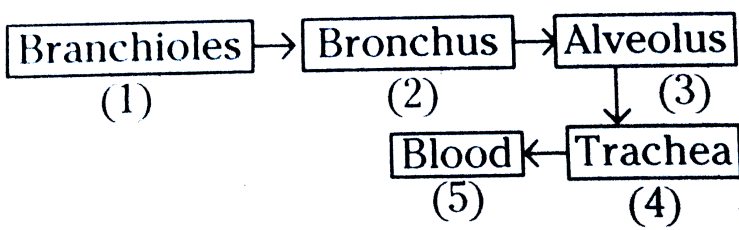
75.

In the figure, X denotes.



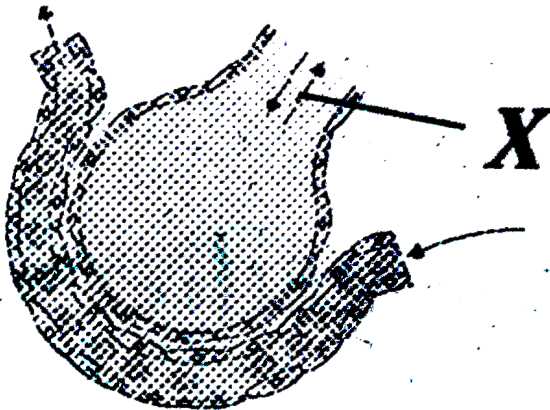
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76. Arrange the following flow chart in the correct order .



**Watch Video Solution**

77. In this figure , x denotes the following



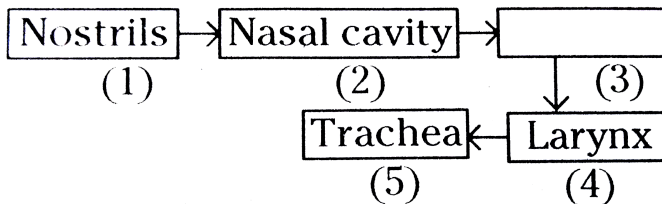
**Watch Video Solution**

78. Man : Lungs , Frog : \_\_\_\_\_



**Watch Video Solution**

79. Complete this flow chart .



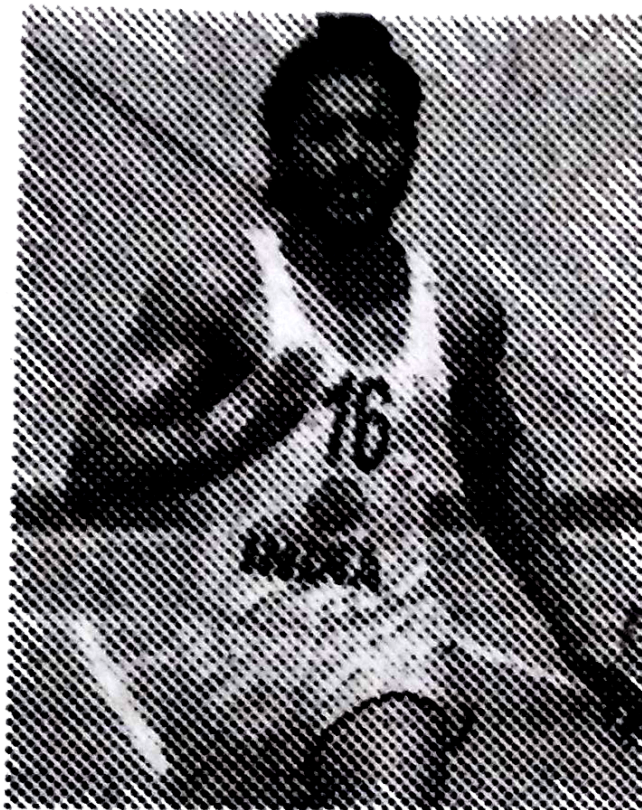
**Watch Video Solution**

80. The bunch of grapes like structures are seen in \_\_\_\_



**Watch Video Solution**

**81.** During the race , this athlete got severe muscular pain and fell down . Can you guess the reason for that ?



**Watch Video Solution**

## Creative Questions For New Model Paper Preparation Questions For The Examination Purpose

1. Which gases are exchanged in your lungs ?



**Watch Video Solution**

2. What are the components present in exhaled air ?



**Watch Video Solution**

3. We can use lime water to test the presence of  $CO_2$  in respiration experiments. What change do you observe in lime water ?



**Watch Video Solution**

4. What is the chemical used to identify the presence of oxygen in anaerobic respiration experiment ?



**Watch Video Solution**



5. What is the energy currency of the cell ?



**Watch Video Solution**

6. What is the total lung capacity of human being ?



**Watch Video Solution**

7. If green plants are not there on earth what happens ?



**Watch Video Solution**

8. What is the percentage of  $CO_2$  in exhaled air ?



**Watch Video Solution**

9. What are the structural and functional units of the lungs ?



**Watch Video Solution**

10. if the quantity of particular matter increases in air , what will happen ?



**Watch Video Solution**

11. What is the middle step between gaseous exchange at lungs level and tissue level ?



**Watch Video Solution**

**12.** What happens if there is no epiglottis in human beings ?



**Watch Video Solution**

**13.** Where do you find vocal cords ?



**Watch Video Solution**

**14.** In which process food is broken down for release of energy ?



**Watch Video Solution**

**15.** From which language the word respiration came ?



**Watch Video Solution**

**16.** Which gas is liberated on heating powdered charcoal ?



**Watch Video Solution**

**17.** What gas is needed for combustion of substances ?



**Watch Video Solution**

**18.** Where does gaseous exchange take place in lungs ?



**Watch Video Solution**

**19.** In which part of the respiratory systems the air is filtered ?



**Watch Video Solution**

**20.** Name the muscular valve in the pharynx controls movement of air and food towards their respective passages .



**Watch Video Solution**

**21.** From where do the single celled organisms get oxygen ?



**Watch Video Solution**

**22.** What is the life span of RBC ?



**Watch Video Solution**

**23.** What is the percentage of oxygen in the exhaled air ?





**Watch Video Solution**

**24.** Name the oxygen carrying pigment in blood



**Watch Video Solution**

**25.** In bacteria, where does the cellular respiration take place ?



**Watch Video Solution**

**26.** How many calories of energy is obtained from 1 ATP molecule ?



**Watch Video Solution**

**27.** Name the first stage in the oxidation of glucose molecule.



**Watch Video Solution**

**28.** what is reason for muscular pains after strenuous exercises ?



**Watch Video Solution**

**29.** Name the process involved in the preparation of bread and alcohol



**Watch Video Solution**

**30.** In plants gaseous exchange occurs through ?



**Watch Video Solution**

**31.** Where can you observe respiratory roots ?



**Watch Video Solution**

**32.** What are the end products of aerobic respiration ?



**Watch Video Solution**

**33.** Name the structure that plays important role in respiratory movements.



**Watch Video Solution**

**34.** Where you can observe lenticels ?



**Watch Video Solution**

**35.** What is the function of lenticels ?



**Watch Video Solution**

**36.** The lungs are surrounded by two protective layers. What do you call them ?



**Watch Video Solution**

**37.** Name the metal present in haemoglobin



**Watch Video Solution**

**38.** What is the unstable compound formed ,  
when oxygen combines with haemoglobin.



**Watch Video Solution**

**39.** What is the compound formed , when  $CO_2$   
is combined with haemoglobin ?



**Watch Video Solution**

**40.** What is the site of respiration in eukaryotic cells ?



**Watch Video Solution**

**41.** What is "the power house of the cell " ?



**Watch Video Solution**

**42.** In glycolysis , the glucose is converted into which form ?





[Watch Video Solution](#)

**43.** Name the microorganism associated with fermentation process.



[Watch Video Solution](#)

**44.** The blue dye Diazine green turns to which colour when the supply of oxygen around it is short ?



[Watch Video Solution](#)

**45.** Which gas is released when a baker prepares a dough by mixing yeast in it ?



**Watch Video Solution**

**46.** When we preserve idly , dosa dough at our home, we will notice the smell of alcohol. Can you guess the reason for it ?



**Watch Video Solution**

**47.** What are the end products of fermentation ?



**Watch Video Solution**

**48.** By which process ethanol can be separated from yeast glucose mixture ?



**Watch Video Solution**

**49.** What is the boiling temperature of ethanol ?



**Watch Video Solution**

**50.** What type of adaptation you can see in the plants growing in water logged conditions ?



**Watch Video Solution**

**51.** What type of chemical reaction is respiration ?



**Watch Video Solution**

**52.** In which part of the respiratory system of man , you can observe the 'C' shaped cartilagenous rings ?



**Watch Video Solution**

**53.** "Haemoglobin is dissolved in plasma ". In which animal you can observe this condition ?



**Watch Video Solution**

**54.** Name the part that plays major role in respiratory movements in woman .



**Watch Video Solution**

**55.** Give two examples for amphibians



**Watch Video Solution**

**56.** By which process the carbondioxide in the blood is exchanged for oxygen in the alveoli ?



**Watch Video Solution**

**57.** In which animals we can observe tracheal respiratory system ?



**Watch Video Solution**

**58.** Where can we can observe breathing or aerial roots ?



**Watch Video Solution**

**59.** What is the percentage of oxygen in atmosphere ?



**Watch Video Solution**

**60.** What are the respiratory organs of Dolphins ?



**Watch Video Solution**



**61.** What do the mountaineers and deep sea divers carry on their backs ?



**Watch Video Solution**

**62.** In which plants we can observe a special tissue to produce oxygen for respiration ?



**Watch Video Solution**

**63.** Why do we conduct bell jar experiment with sprouted seeds and lime water beaker ?



**Watch Video Solution**

**64.** How do you infer the presence of  $CO_2$  in respiration experiments ?



**Watch Video Solution**

**65.** Why do we conduct bell jar experiment with sprouted seeds and thermometer ?



**Watch Video Solution**

**66.** Where do you find mangrove forests ?



**Watch Video Solution**

**67.** Which gas is evolved during the combustion of sugar ?



**Watch Video Solution**

**68.** Why lactic acid is formed in the muscles of athletes which causes severe pain ?



**Watch Video Solution**

**69.** Give two examples for respiratory diseases.



**Watch Video Solution**

**70.** How much amount of air remains in lungs after complete exhalation ?



**Watch Video Solution**

**71.** What are the respiratory organs of Cockroach ?



**Watch Video Solution**

72. What is the process through which respiration takes place in Amoeba and hydra ?



**Watch Video Solution**

73. In which organism do you observe cutaneous respiration ?



**Watch Video Solution**

**74.** Name the respiratory organs present in fish



**Watch Video Solution**

**75.** What are the respiratory organs of pulmonary respiration ?



**Watch Video Solution**

**76.** What is the main function of haemoglobin in blood ?



**Watch Video Solution**

**77.** The bark of which one of the following plants is used as a condiment in food stuffs?

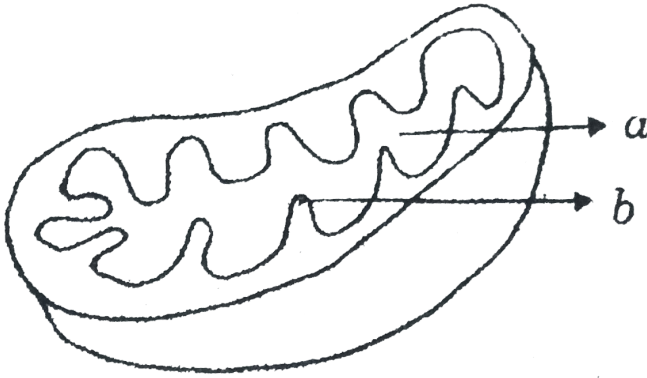


**Watch Video Solution**

**Creative Questions For New Model Paper 1 Mark Questions**



1. Label a and b in the given diagram



**Watch Video Solution**

2. In what compound, the energy released during the breakdown of glucose is stored?



**Watch Video Solution**

**3.** Fermented idli, dosa produce smell. Name the microorganism responsible for producing such smell.



**Watch Video Solution**

**4.** What are the end products of Aerobic and Anaerobic Respirations?



**Watch Video Solution**

5. In which organisms, blood does not supply the Oxygen?



**Watch Video Solution**

6. Name the food material on which trypsin acts and name the end products



**Watch Video Solution**

7. Name chemical substance produced in human muscles during Anaerobic respiration .



**Watch Video Solution**

8. Why Diazene Green solution is added to the Glucose solution in anaerobic respiration experiment ?



**Watch Video Solution**

**9.** Can we say that combustion and respiration are almost same actions. What evidences do you have for this ?



**Watch Video Solution**

**10.** What is the role of epiglottis and diaphragm in respiration ?



**Watch Video Solution**

**11.** What is the pathway of air from nostril to alveolus ?



**Watch Video Solution**

**12.** What is respiration ?



**Watch Video Solution**

**13.** What does the respiration mean ?



**Watch Video Solution**

14. Who did comprehensive work on properties of gases , their exchange and respiration ?



**Watch Video Solution**

15. What was the gas liberated on heating powdered charcoal in a bell jar ?



**Watch Video Solution**

16. What was produced by combustion according to Lavoisier ?



**Watch Video Solution**

17. What is vitiated air ?



**Watch Video Solution**

18. Who was the renowned chemist ? Who wrote a textbook of Human Physiology ?







[Watch Video Solution](#)

**19.** What happens when air passes through nasal cavities ?



[Watch Video Solution](#)

**20.** What is the function of epiglottis ?



[Watch Video Solution](#)

21. Where does gaseous exchange take place in lungs ?



**Watch Video Solution**

22. What is breathing ?



**Watch Video Solution**

23. What is inspiration or inhalation ?



**Watch Video Solution**

**24.** What is expiration or exhalation ?



**Watch Video Solution**

**25.** What are pleura?



**Watch Video Solution**

**26.** What is cellular respiration ?



**Watch Video Solution**

**27.** What is aerobic respiration ?



**Watch Video Solution**

**28.** What is anaerobic respiration ?



**Watch Video Solution**

**29.** What does aerobic respiration occur in eukaryotic cells ?



**Watch Video Solution**

**30. What is Glycolysis ?**



**Watch Video Solution**

**31. What is the fate of pyruvate in the absence of oxygen in plants ?**



**Watch Video Solution**

**32.** What is the fate of pyruvate in the absence of oxygen in animals ?



**Watch Video Solution**

**33.** In aerobic respiration pyruvate is converted into ?



**Watch Video Solution**

**34.** What is the main reason for feeling pain in muscles after strenuous exercise ?



**Watch Video Solution**

**35.** What is fermentation ?



**Watch Video Solution**

**36.** By which process ethanol can be separated from yeast glucose mixture ?



**Watch Video Solution**

**37.** What is combustion ?



**Watch Video Solution**

**38.** In which organisms does exchange of gases take place through diffusion ?



**Watch Video Solution**



**39.** In tracheal, respiratory system which carry air directly to the cells in the tissues ?



**Watch Video Solution**

**40.** What is cutaneous respiration ?



**Watch Video Solution**

**41.** What are the other areas on the plant body through which gaseous exchange takes place ?



**Watch Video Solution**

**42.** What is the full form of ATP ? How is it formed ?



**Watch Video Solution**

**43.** What is the use of ATP ?



**Watch Video Solution**

**44.** What are the factors that control respiration ?



**Watch Video Solution**

**45.** What are the substances that are used for the production of energy in all living organisms ?



**Watch Video Solution**

**46.** How many types of respiration are present ? What are they ?



**Watch Video Solution**

**47.** Where is energy stored in ATP ?



**Watch Video Solution**

**48.** What is the main differences between respiration and combustion ?



Watch Video Solution

**49.** Name the type of respiration in which the end products are (a)  $C_2H_5OH$  and  $CO_2$  , (b)  $CO_2$  and  $H_2O$  , (c ) Lactic acid



Watch Video Solution

**50.** What is the equation that represents respiration ?



Watch Video Solution

**51.** What are the sites of cellular respiration ?



**Watch Video Solution**

**52.** What are cristae in mitochondria ?



**Watch Video Solution**

**53.** What is the net gain of ATP molecules in Glucolysis ?





[Watch Video Solution](#)

**54.** What are the number of ATP molecules produced when one glucose molecule is completely oxidised ?



[Watch Video Solution](#)

**55.** What are the three stages present in complete oxidation of glucose molecule ?



[Watch Video Solution](#)

**56.** Why does oxidation of fatty acids give more energy ?



**Watch Video Solution**

**57.** What is meant by aquatic animals and terrestrial animals ?



**Watch Video Solution**



**58.** Why is the rate of breathing in aquatic organisms such faster than terrestrial organisms ?



**Watch Video Solution**

**59.** Which part of roots is involved in the exchange of respiratory gases ?



**Watch Video Solution**

**60.** Name the areas in a woody stem through which respiratory exchange of gases takes place.



**Watch Video Solution**

**61.** Out of photosynthesis and respiration in plants which process occurs all the time and only at daytime ?



**Watch Video Solution**

**62.** What is the average breathing rate in an adult man at rest ?



**Watch Video Solution**

**63.** How the trachea is prevented from collapsing ?



**Watch Video Solution**

**64.** What has raised the percentage of carbon dioxide in exhaled air?



**Watch Video Solution**

**65.** What are the reasons for the animals to develop different types of respiratory organs ?



**Watch Video Solution**

**66.** Why do fishes die when taken out of water ?



**Watch Video Solution**

**67.** What would be the consequences of deficiency of haemoglobin in our bodies ?



**Watch Video Solution**

**68.** What is the composition of inhaled air?



**Watch Video Solution**

**69.** What is the composition of exhaled air ?



**Watch Video Solution**

**70.** Why does the amount of nitrogen not vary between exhaled and inhaled air ?



**Watch Video Solution**

**71.** In which kind of respiration is more energy released ?



**Watch Video Solution**

**72.** What are lenticels ?



**Watch Video Solution**

**73.** How does diaphragm help in inhalation ?



**Watch Video Solution**

74. "If there were no algae , there would be no fish in the sea." Comment.



**Watch Video Solution**

## Creative Questions For New Model Paper 2 Mark Questions

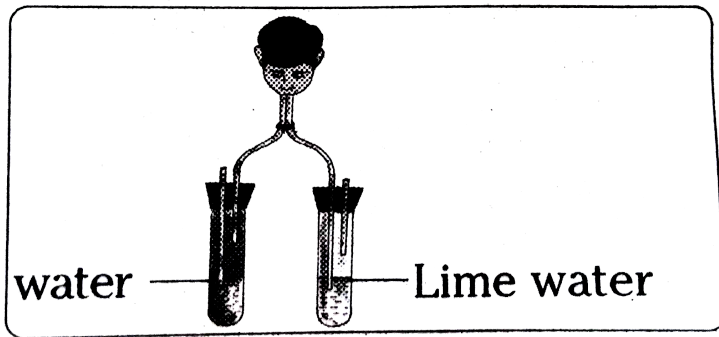
1. Which gas turns lime water milky ?



**Watch Video Solution**



2. Which gas do you think might be present in less quantities in the air we breath out as compared to air around us ?



**Watch Video Solution**

3. Balu said that , "Plants perform Photosynthesis during day time. They respire

during night time ".

Do you agree with Balu ? Why ? Why not ?



**Watch Video Solution**

4. The sports man who participated in 100 mtr. Race get more muscle pains. But the sports man who participates in 5 km's race get less muscle pains. What is the reason ?



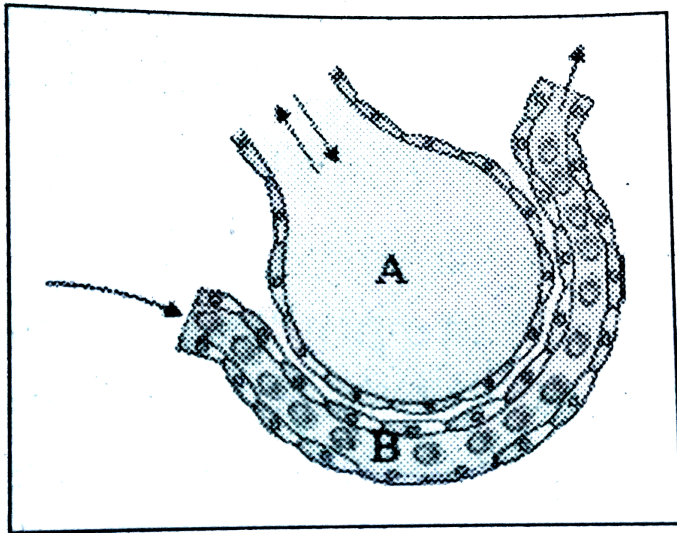
**Watch Video Solution**

5. What happens if there is no epiglottis in human beings ?



**Watch Video Solution**

6. Observe the diagram.

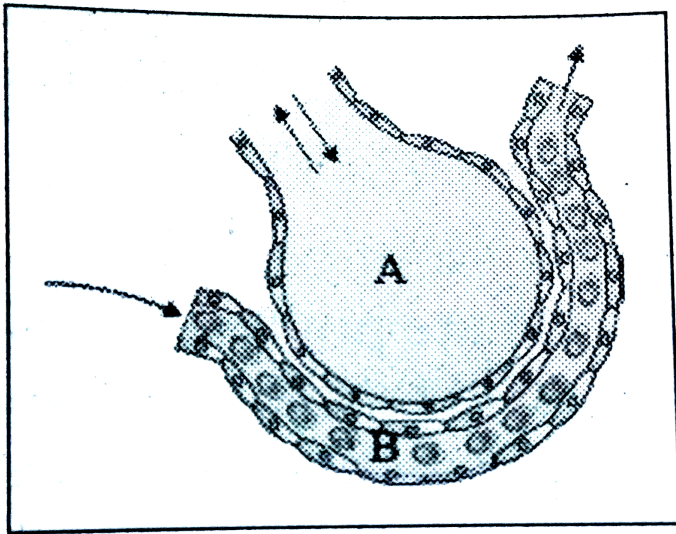


This picture is related to which biosystem ?



**Watch Video Solution**

7. Observe the diagram.

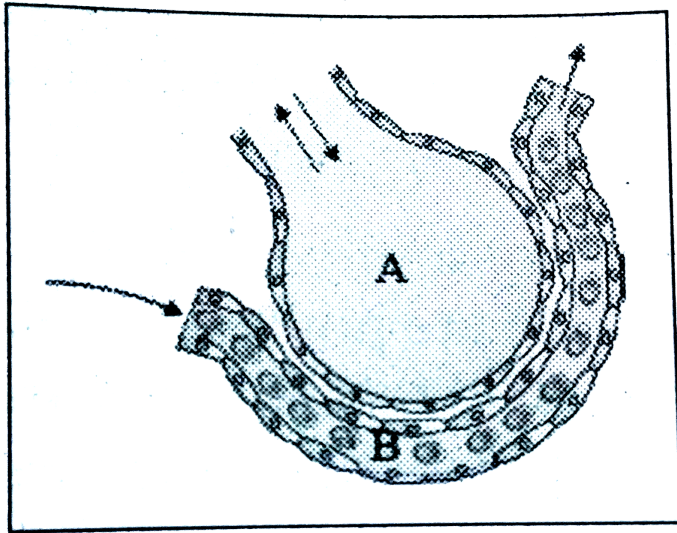


Write the names of the parts of A,B



**Watch Video Solution**

8. Observe the diagram.

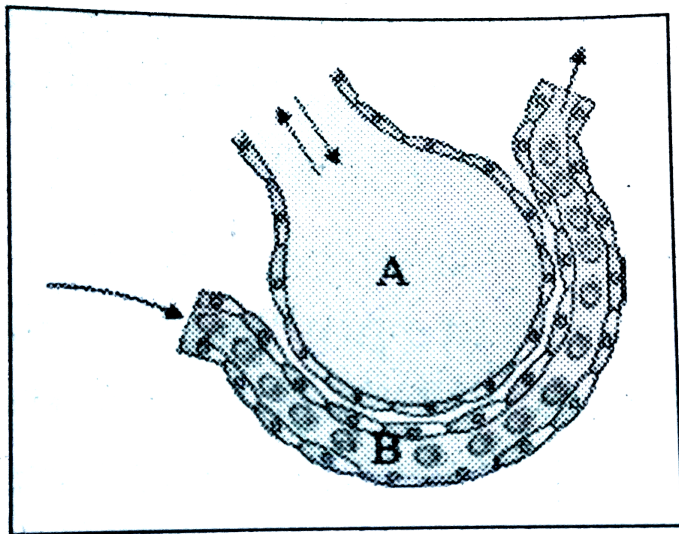


To which system they are linked with ?



**Watch Video Solution**

9. Observe the diagram.



Which process is happening here ? What happens as a result of it ?



**Watch Video Solution**

**10.** A person reached a specific distance once on foot and once by running . In which situation his legs pain ? Why



**Watch Video Solution**

**11.** What is the advantage of the wet and warm passage of air from the nostrils to capillaries ?



**Watch Video Solution**

12. What is fermentation ? Why anaerobic respiration should not be used as synonym of fermentation ?



Watch Video Solution

13. See the below table . Write what you know from it .

| Gas            | % in inhaled air | % in exhaled air |
|----------------|------------------|------------------|
| Oxygen         | 21               | 16               |
| Carbon dioxide | 0.03             | 4.4              |
| Nitrogen       | 78               | 78               |



Watch Video Solution



**14.** How does the respiration in amoeba and hydra occur through diffusion ?



**Watch Video Solution**

**15.** Describe the process of respiration in Amoeba. State whether it is anaerobic respiration or aerobic respiration.



**Watch Video Solution**

**16.** What are different ways in which glucose is oxidised to provide energy in various organisms?



**Watch Video Solution**

**17.** How does respiration in plants differ from that in animals ?



**Watch Video Solution**

**18.** In human respiratory system different stages are there beginning with nostril to gaseous exchange between blood and cell. Which of these stages do you think is amazing ? Why do you think so ?



**Watch Video Solution**

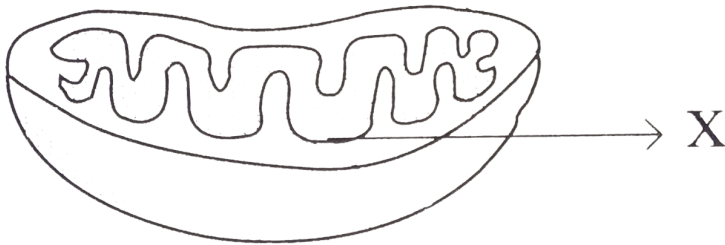
**19.** After learning this lesson, what precautions will you take to protect your lungs ?



**Watch Video Solution**

## Creative Questions For New Model Paper 4 Mark Questions

1. Observe the diagram and answer the following question.

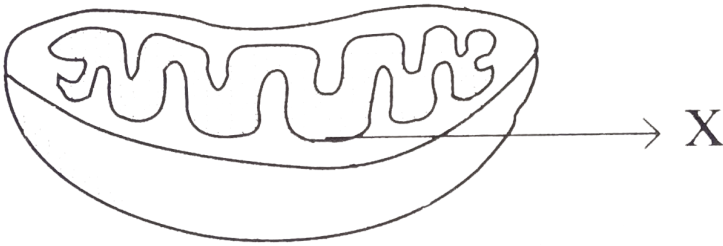


What does the given diagram indicate ?



**Watch Video Solution**

2. Observe the diagram and answer the following question.

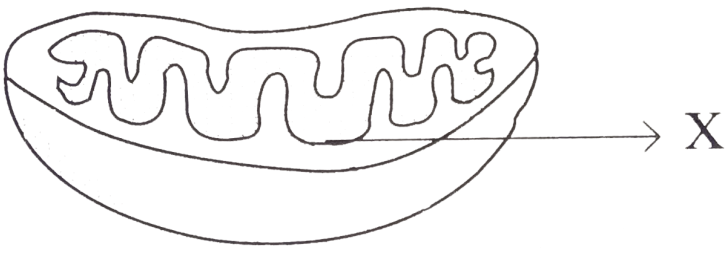


What is the part 'x' in the diagram ?



**Watch Video Solution**

3. Observe the diagram and answer the following question.

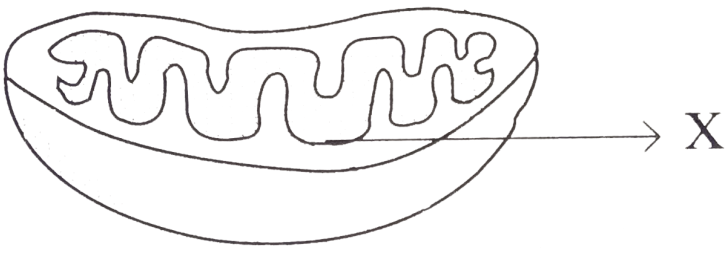


What is the function of the given picture ?



**Watch Video Solution**

4. Observe the diagram and answer the following question.

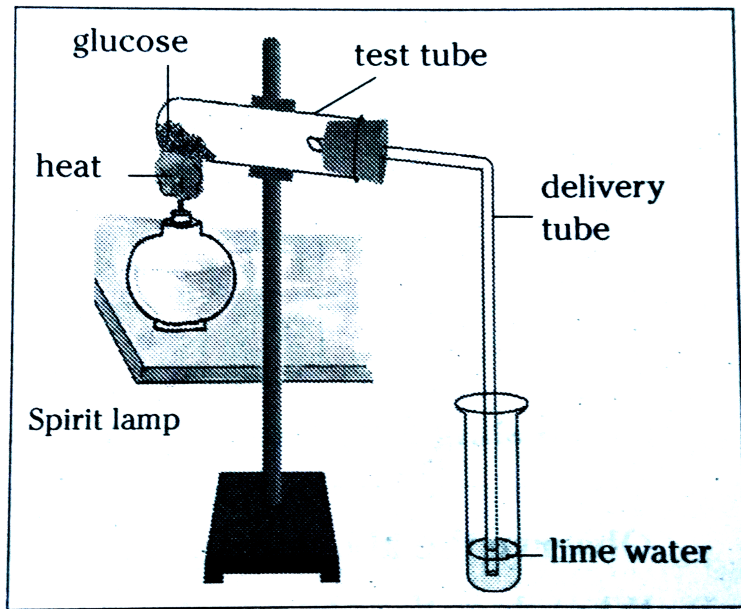


To which system the given picture belongs to ?



**Watch Video Solution**

5. Observe the set of apparatus and answer the following question.



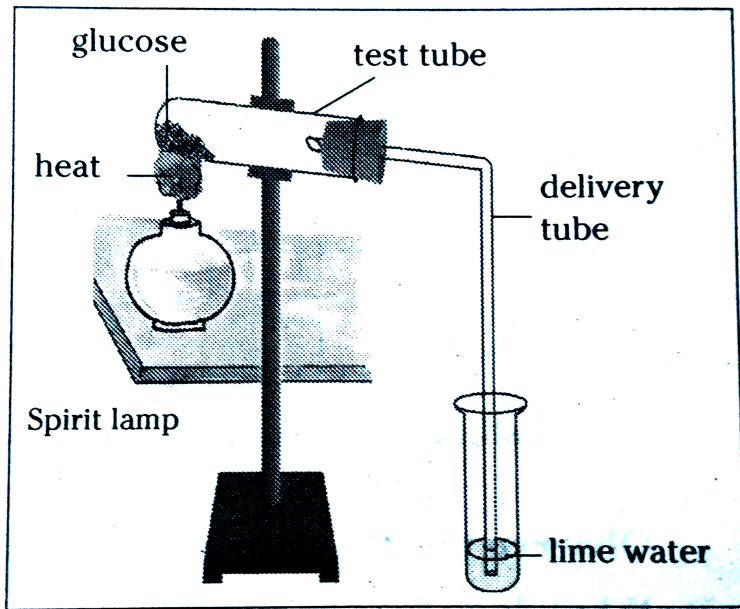
Which process do we know with the help of this experiment ?



**Watch Video Solution**

6. Observe the set of apparatus and answer the following question.



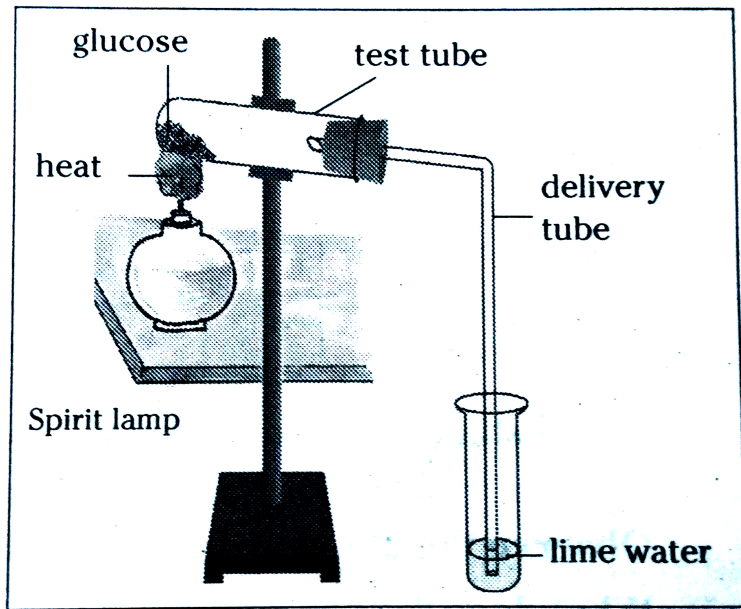


How does this process differ with respiration ?



**Watch Video Solution**

7. Observe the set of apparatus and answer the following question.

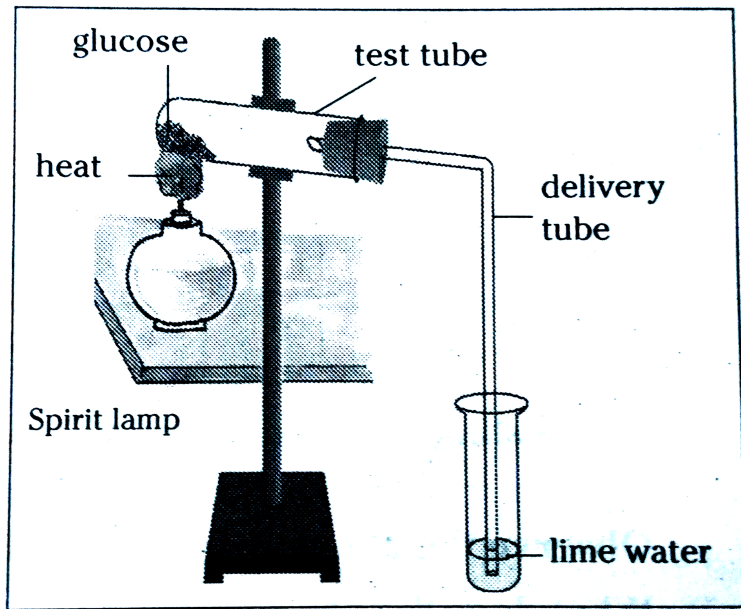


What are the similarities between this process and respiration ?



**Watch Video Solution**

8. Observe the set of apparatus and answer the following question.

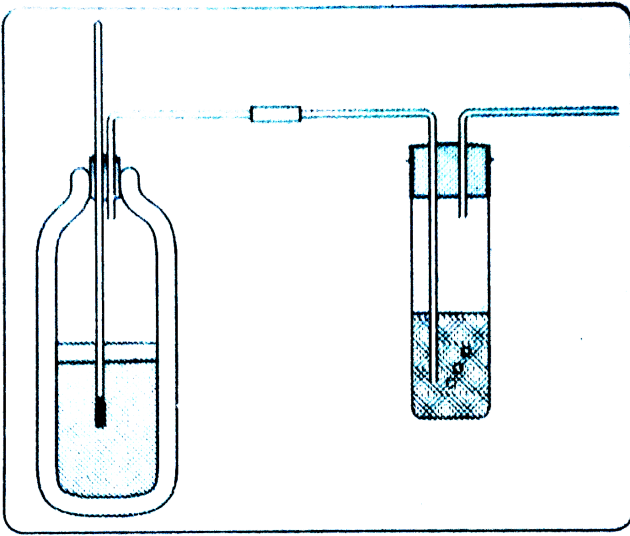


Which gas turns lime-water milky ?



**Watch Video Solution**

9. Look at the following experiment. Answer the questions .

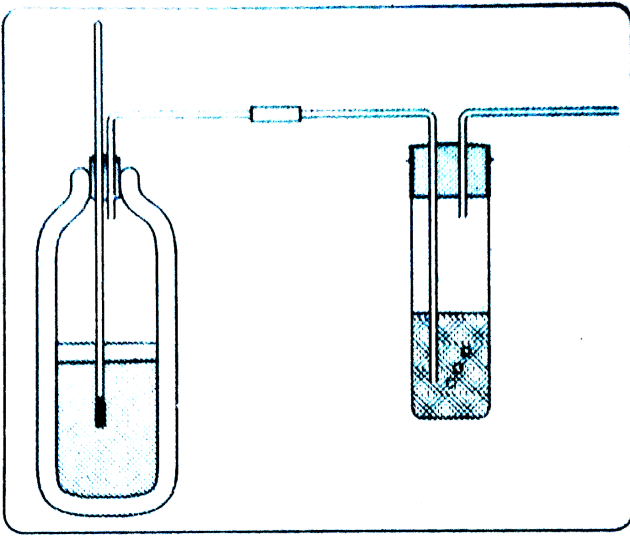


What is the aim of the experiment ?



**Watch Video Solution**

**10.** Look at the following experiment. Answer the questions .

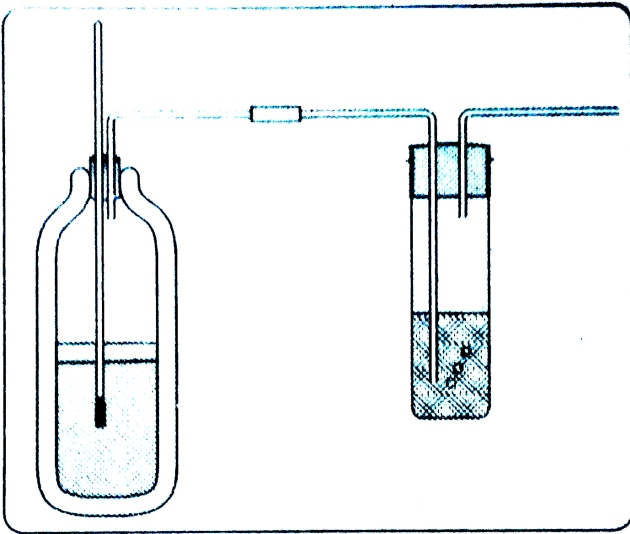


How does the process differ with respiration ?



**Watch Video Solution**

**11.** Look at the following experiment. Answer the questions .

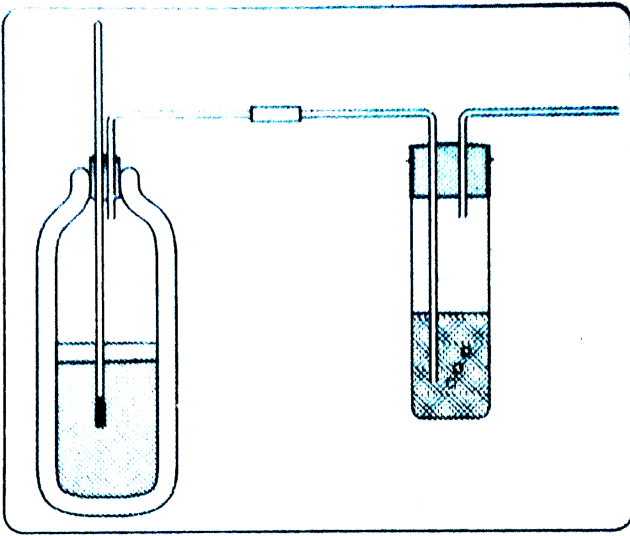


What are the similarities between this process and respiration ?



**Watch Video Solution**

**12.** Look at the following experiment. Answer the questions .



Which gas turns lime-water milky ?



**Watch Video Solution**

**13.** Look at the following experiment . Answer the questions.

What is the aim of the experiment ?



**View Text Solution**

**14.** Look at the following experiment . Answer the questions.



Which agent is used to find the presence of oxygen ? What changes do you observe when oxygen is present in Glucose solution ?



**View Text Solution**



**15.** Look at the following experiment . Answer the questions.



Why liquid paraffin is poured on Glucose solution ?



**View Text Solution**

**16.** Look at the following experiment . Answer the questions.



Which gas released during the experiment ?

How can you prove it ?

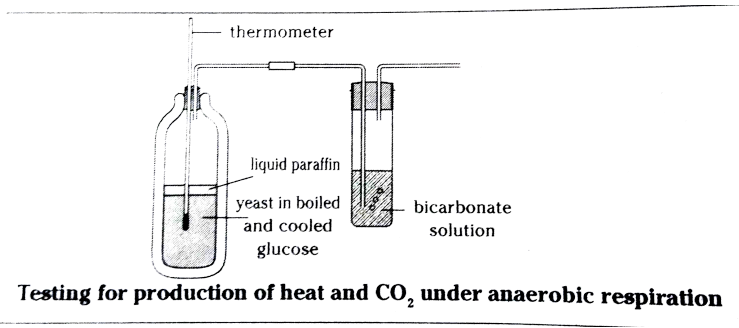


**View Text Solution**

**17.** Write about respiration in mangroves that grow in marshy lands.



**Watch Video Solution**

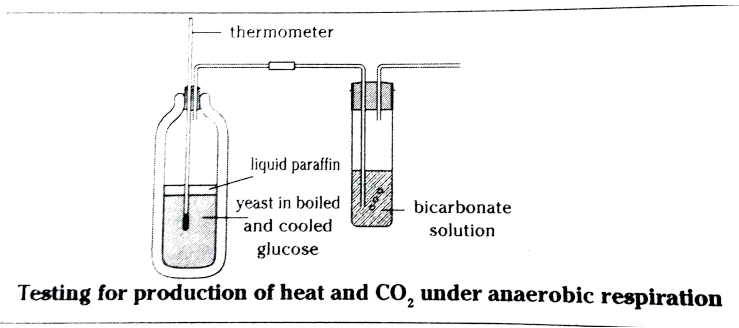


Observe the above diagram and answer the following questions :

What does the above setting (diagram ) indicate ?



**Watch Video Solution**

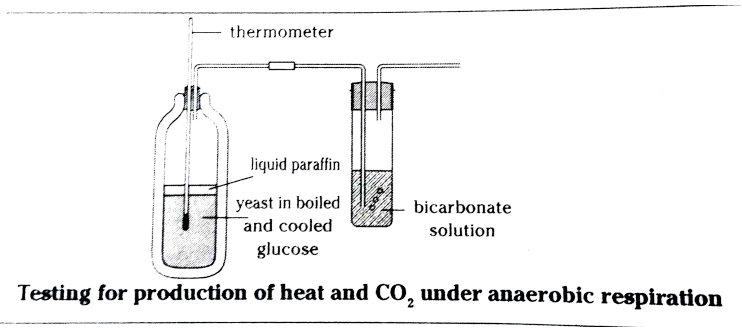


Observe the above diagram and answer the following questions :

Why boiled and cooled glucose is covered with paraffin ?



**Watch Video Solution**

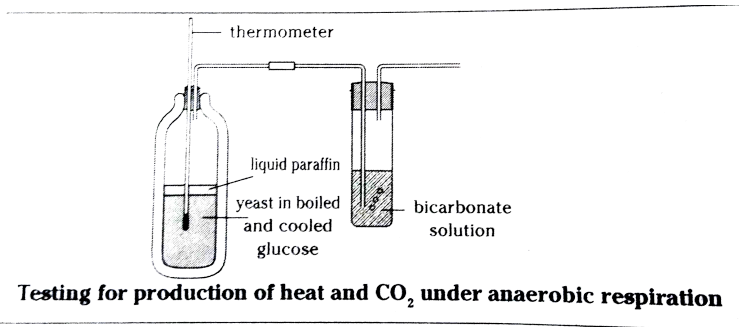


Observe the above diagram and answer the following questions :

What is the use of adding diazine green to glucose solution ? What change you notice in glucose solution ?



**Watch Video Solution**

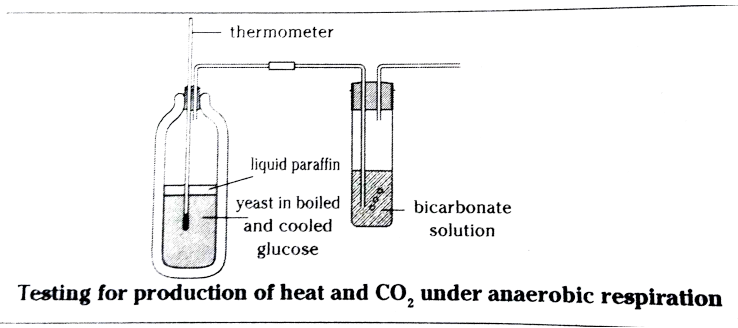


Observe the above diagram and answer the following questions :

Why the lime water is used in this experiment ?



**Watch Video Solution**

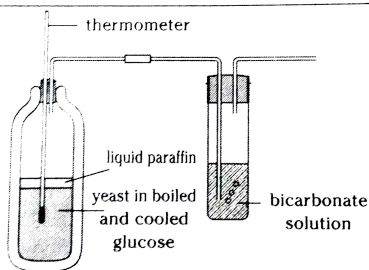


Observe the above diagram and answer the following questions :

Why is bulb of thermometer dipped in the glucose water



**Watch Video Solution**



**23. Testing for production of heat and  $\text{CO}_2$  under anaerobic respiration**

Observe the above diagram and answer the following questions :

Why is bulb of thermometer dipped in the glucose water



**Watch Video Solution**

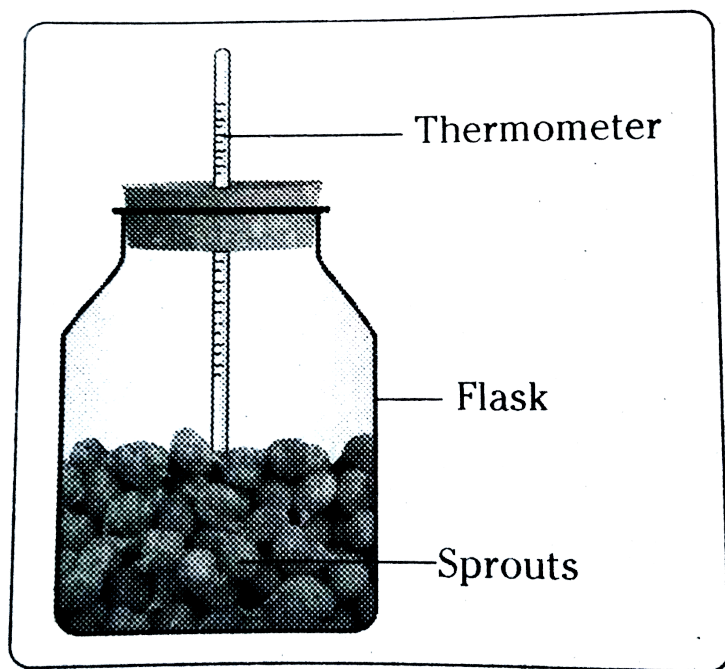


**24.** Explain with the help of a flow chart, the path way of air in humans .



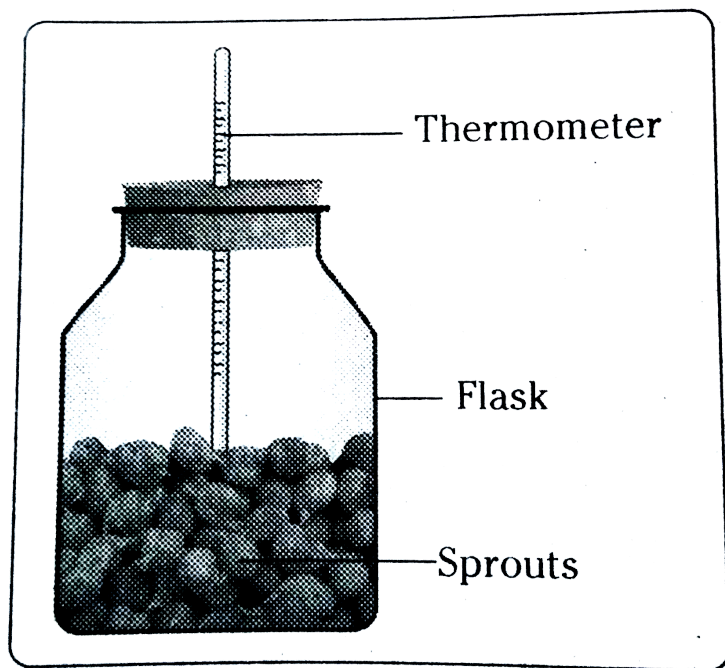
**Watch Video Solution**

25. What is the aim of this experiment ?



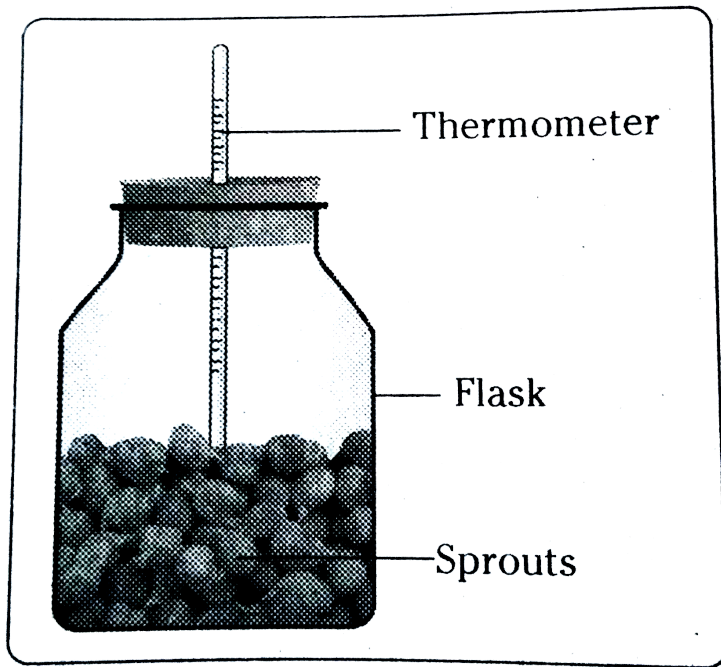
**Watch Video Solution**

26. What change do you observe in thermometer readings ?



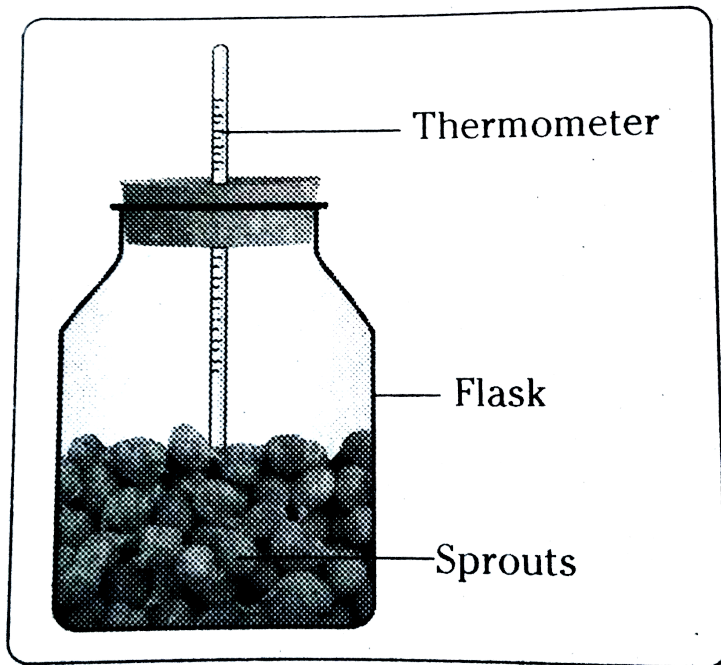
**Watch Video Solution**

27. In your opinion , where did this heat come from ?



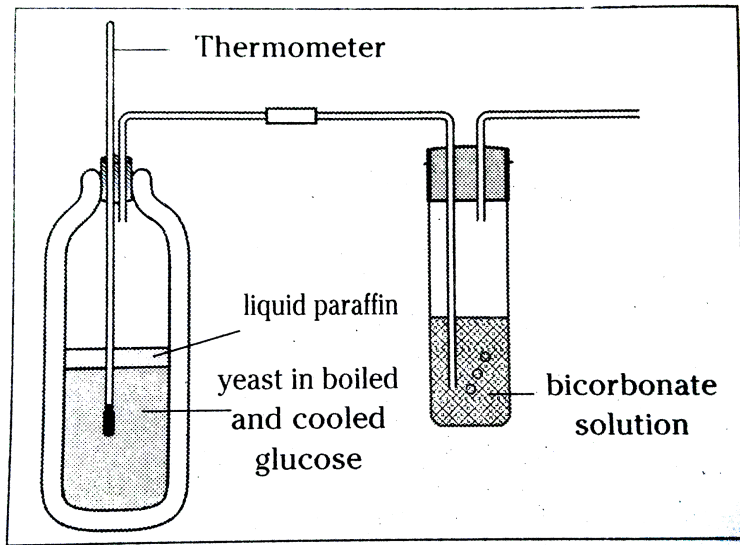
**Watch Video Solution**

28. What precaution should we take , while doing this experiment ?



**Watch Video Solution**

29. You have conducted this experiment in your class room. Now answer the following questions.

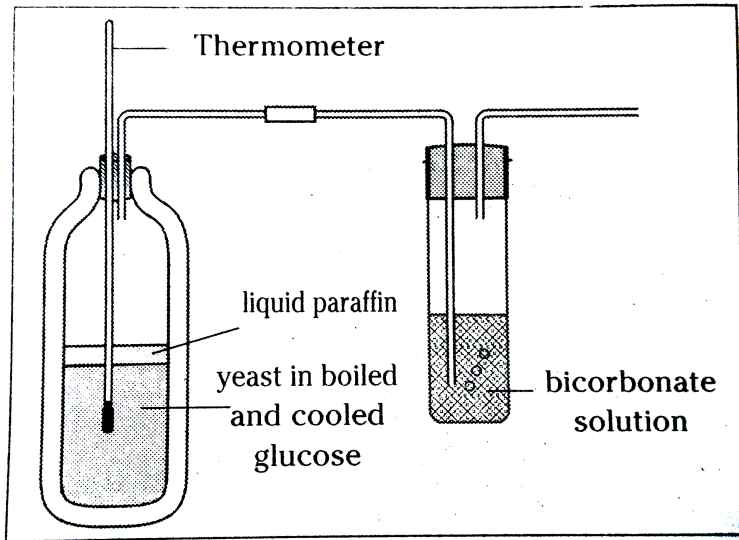


What do you prove by conducting this experiment ?



**Watch Video Solution**

30. You have conducted this experiment in your class room. Now answer the following questions.

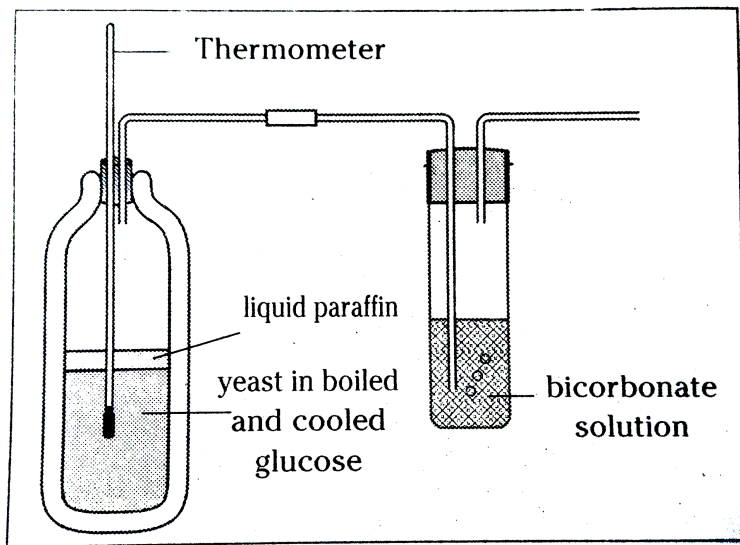


Why do you heat glucose solution ?



**Watch Video Solution**

31. You have conducted this experiment in your class room. Now answer the following questions.



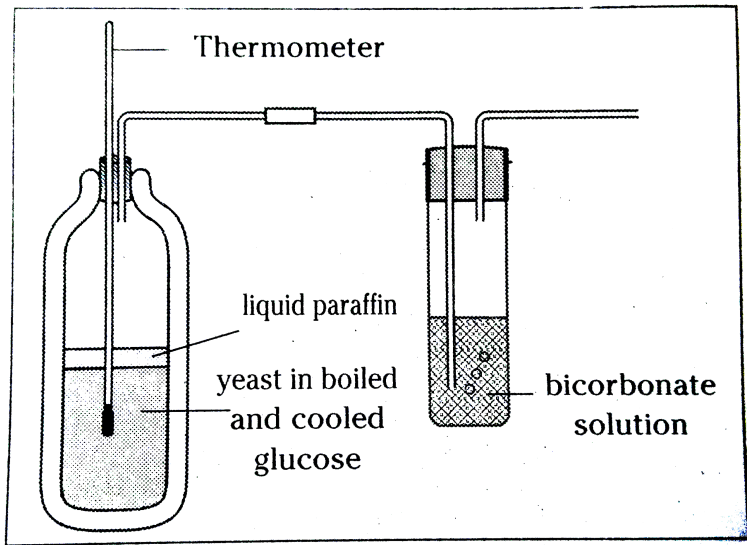
How do you confirm that glucose solution is free from oxygen after heating it ?



**Watch Video Solution**



32. You have conducted this experiment in your class room. Now answer the following questions.



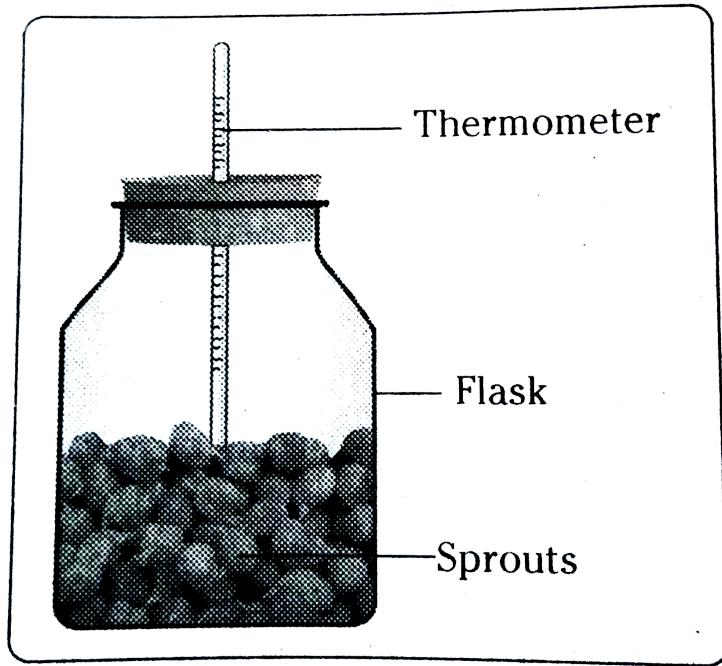
What

are the changes you notice in the lime water ?



**Watch Video Solution**

33. What change do you observe in thermometer readings ?



**Watch Video Solution**

**34.** What change did you observe in the thermometer in the given experiment ?



Where does the heat come from ?



**Watch Video Solution**

35. What change did you observe in the thermometer in the given experiment ?



What result you will get , if you perform this experiment with dry seeds ?



**Watch Video Solution**

**36.** What change did you observe in the thermometer in the given experiment ?

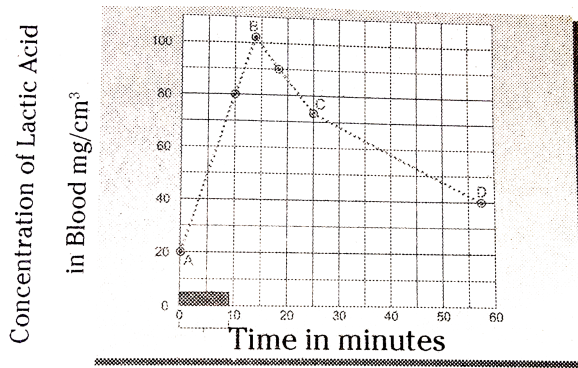


What are the apparatus used in this experiment ?



**Watch Video Solution**

37. Observe the following graph and answer the questions given below .



***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

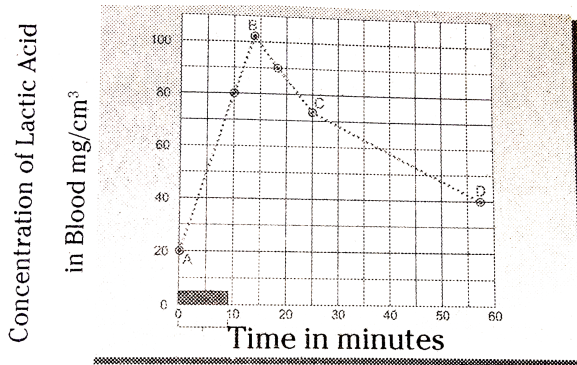
What was the concentration of lactic acid in the blood to start with ?



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**38.** Observe the following graph and answer the questions given below .



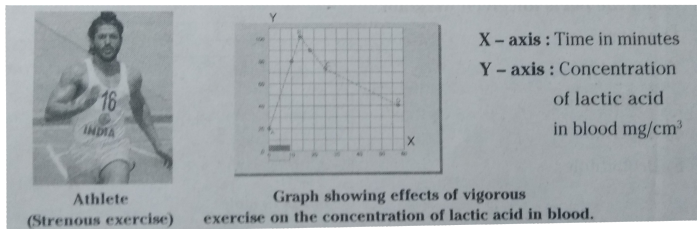
***Graph showing effects of vigorous exercise on the concentration of lactic acid in blood.***

In which state lactic acid concentration is more ?



**Watch Video Solution**

**39.** Study the graph given below and analyse the reasons for accumulation of lactic acid in blood after strenuous exercise.

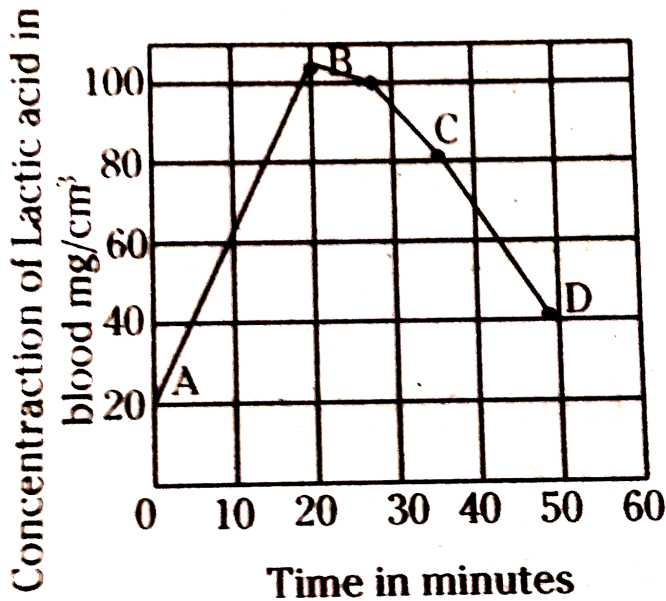


**Watch Video Solution**

**40.** Study the graph and answer the following questions:

Graph showing effects of vigorous exercise on

the concentration of lactic acid in blood .



What is the relationship between lactic acid and muscle pain ?



**Watch Video Solution**

**41.** Describe the structure of mitochondria with the help of a diagram.



**Watch Video Solution**

**42.** Which cell organelle is called energy currency or power house of cell ?



**Watch Video Solution**

**43.** What do you know about the organelle that performs the cellular respiration ?



**Watch Video Solution**

**44.** Why does the exchange of gases happen only in alveoli, though arteries are present in pharynx, trachea and bronchus?



**Watch Video Solution**

**45.** Describe how oxygen enters the blood in lungs with the help of a block diagram.



**Watch Video Solution**

**46.** How does gaseous exchange occur in lungs ?



**Watch Video Solution**

**47.** What is the role of diaphragm and ribs in respiration ? Are both active in man and woman?



**Watch Video Solution**

**48.** Is respiration possible without diaphragm and ribs in human? Explain.



**Watch Video Solution**

**49.** Identify the mismatched pair.

1) WBC → Oxygen transportation

2) RBC → Microscopic policeman

3) Platelets → Blood coagulation.



**Watch Video Solution**

**50.** What are different ways in which glucose is oxidised to provide energy in various organisms?



**Watch Video Solution**



**51.** Write the adaptations seen in plants living in water logged conditions.



**Watch Video Solution**

**52.** Write a brief note on respiration in plants.



**Watch Video Solution**

**53.** How do you appreciate the mechanism of respiration in our body ?



**Watch Video Solution**

**54.** Write a brief note on tracheal respiration in insects .



**Watch Video Solution**

**55.** Explain the evolutionary changes in energy releasing system.



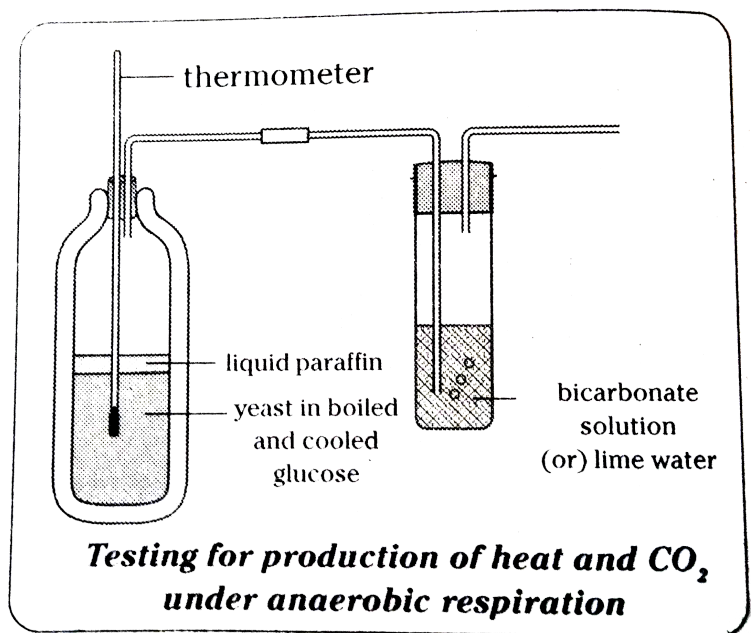
**Watch Video Solution**

**56.** Describe the structure of human lungs with the help of a diagram



**Watch Video Solution**

57. To observe Anaerobic respiration a student conducted experiment with yeast. In this experiment,

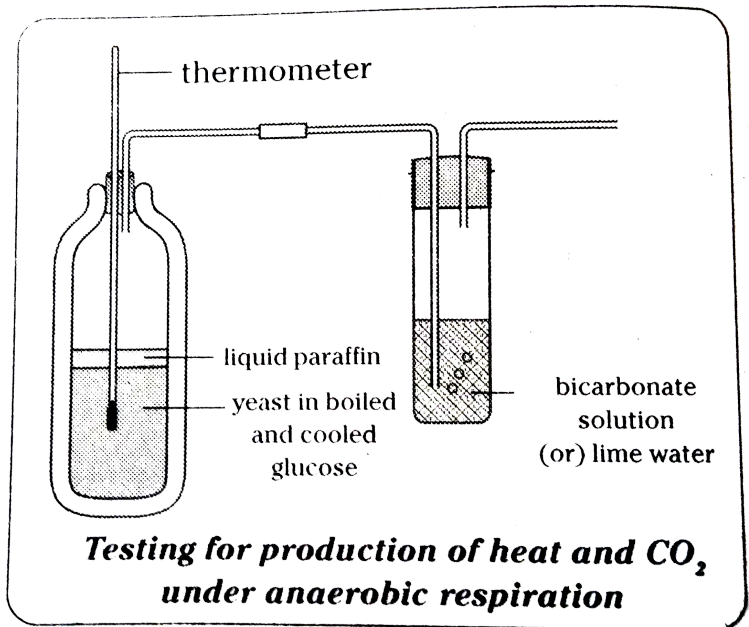


Why did he pour paraffin on glucose solution ?



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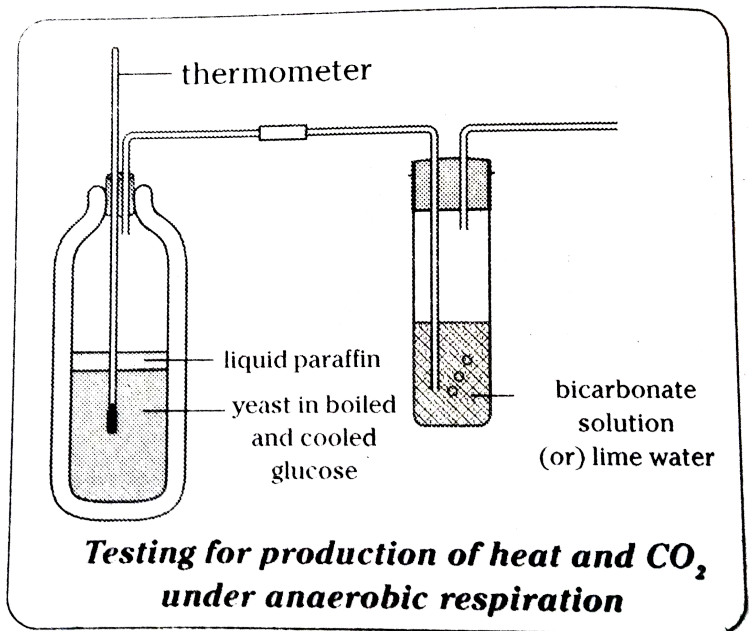
**58.** To observe Anaerobic respiration a student conducted experiment with yeast. In this experiment,



Why did he add diazine green (Janus Green) to the glucose solution before adding paraffin wax ?



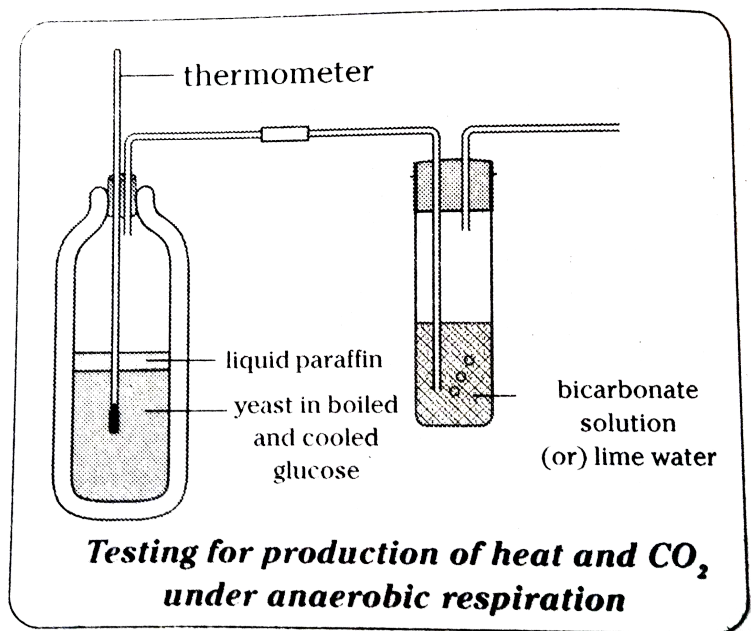
59. To observe Anaerobic respiration a student conducted experiment with yeast. In this experiment,



What did he do to speed up the test ?



60. To observe Anaerobic respiration a student conducted experiment with yeast. In this experiment,



What are the observations he made during the experiment ?



**Watch Video Solution**

61. What is the pathway of air from nostril to alveolus ?



**Watch Video Solution**

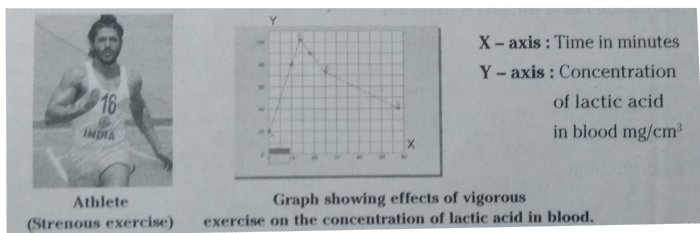
62. What are the green house gases ?



**Watch Video Solution**



**63.** Study the graph given below and analyse the reasons for accumulation of lactic acid in blood after strenuous exercise.



**Watch Video Solution**

**64.** Observe following table and answer the questions given below .

| Gas            | % in inhaled air | % in exhaled air |
|----------------|------------------|------------------|
| Oxygen         | 21               | 16               |
| Carbon dioxide | 0.03             | 4.4              |
| Nitrogen       | 78               | 78               |

Why does the amount of oxygen vary between exhaled and inhaled air ?



**Watch Video Solution**

**65.** Observe following table and answer the questions given below .

| Gas            | % in inhaled air | % in exhaled air |
|----------------|------------------|------------------|
| Oxygen         | 21               | 16               |
| Carbon dioxide | 0.03             | 4.4              |
| Nitrogen       | 78               | 78               |

Why does exhaled air contain more carbon dioxide ?



**Watch Video Solution**

**66.** Observe following table and answer the questions given below .

| Gas            | % in inhaled air | % in exhaled air |
|----------------|------------------|------------------|
| Oxygen         | 21               | 16               |
| Carbon dioxide | 0.03             | 4.4              |
| Nitrogen       | 78               | 78               |

Why there is no change in Nitrogen percentage in exhaled and inhaled air ?



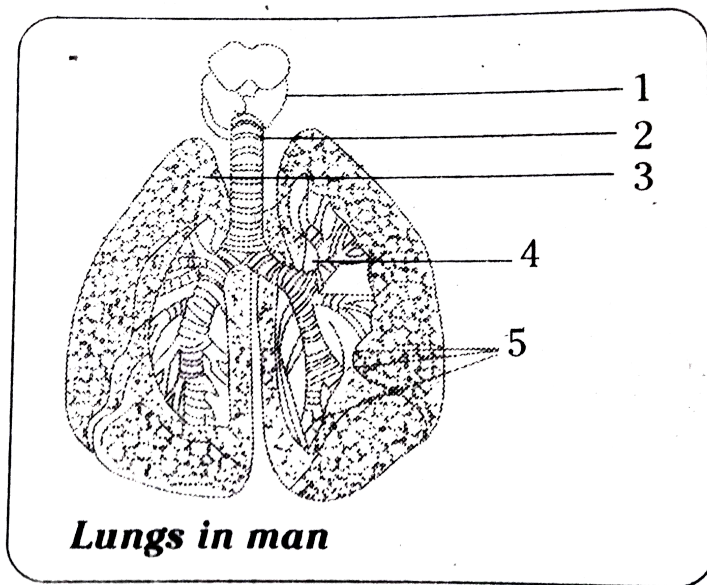
**Watch Video Solution**

**67.** Draw a neat labelled diagram of power house of a cell. What is the function of inner membrane ?



**Watch Video Solution**

68. Label the parts for given diagram .



**Watch Video Solution**

69. Draw a neat diagram to explain the exchange of gases at blood level and label the

parts.



**Watch Video Solution**

## Exercise

1. Distinguish between Inspiration and Expiration



**Watch Video Solution**

2. Distinguish between Aerobic and Anaerobic respiration



**Watch Video Solution**

3. Distinguish between Respiration and Combustion



**Watch Video Solution**

4. Distinguish between Photosynthesis and Respiration



**Watch Video Solution**

5. State two similarities between aerobic and anaerobic respiration.



**Watch Video Solution**



6. Food sometimes enters the wind pipe and causes choking. How does it happen ?



**Watch Video Solution**

7. Why does the rate of breathing increase while walking uphill at a normal pace in the mountains ? Give two reasons.



**Watch Video Solution**

8. "Air leaves the tiny sacs in the lungs to pass into capillaries." What modification is needed in the statement ?



**Watch Video Solution**

9. Balu said that , "Plants perform Photosynthesis during day time. They respire during night time ".

Do you agree with Balu ? Why ? Why not ?



**Watch Video Solution**

**10.** Why does a deep sea diver carry oxygen cylinder on his/her back?



**Watch Video Solution**

**11.** How are alveoli designed to maximise the exchange of gases ?



**Watch Video Solution**

**12.** Where will the release of energy from the glucose in respiration take place ' ? Mala writes lungs , while Jiya writes muscles . Who is correct and why?



**Watch Video Solution**

**13.** What is the role of epiglottis and diaphragm in respiration ?



**Watch Video Solution**

**14.** How does gaseous exchange take place at blood level ?



**Watch Video Solution**

**15.** Explain the mechanism of gaseous exchange at bronchiole level.



**Watch Video Solution**

**16.** After a vigorous exercise or work we feel pain in muscles. What is the relationship between pain and respiration



**Watch Video Solution**

**17.** Raju said , " Stems also respire along with leaves in plants ". Can you support this statement ? Give your reasons



**Watch Video Solution**

**18.** What will happen, if there is no diaphragm in the human body?



**Watch Video Solution**

**19.** if you have a chance to meet pulmonologist , what questions are you going to ask about pulmonary respiration ?



**Watch Video Solution**

**20.** What procedure do you follow to understand anaerobic respiration in your school laboratory ?



**Watch Video Solution**

**21.** What are your observations in combustion of sugar activity ?



**Watch Video Solution**



**22.** Collect information about cutaneous respiration in frog. Prepare a note and explain them in your classroom.



**Watch Video Solution**

**23.** Collect information about respiratory diseases (because of pollution, tobacco ) and discuss with your classmates.



**Watch Video Solution**

**24.** What is the pathway taken by air in the respiratory system? Illustrate with a labeled diagram.



**Watch Video Solution**

**25.** Draw a block diagram showing events in respiration . Write what you understood about cellular respiration :



**Watch Video Solution**

**26.** How do you appreciate the mechanism of respiration in our body ?



**Watch Video Solution**

**27.** Prepare an article on anaerobic respiration to present school symposium



**Watch Video Solution**

**28.** Prepare a cartoon on discussion between haemoglobin and chlorophyll about

respiration.



**Watch Video Solution**

**29.** Exhaled air contains \_\_\_ and \_\_\_



**Watch Video Solution**

**30.** A flap like muscular valve controls movement of air and food is \_\_\_\_\_



**Watch Video Solution**

31. Energy currency of the cell is called \_\_\_\_



**Watch Video Solution**

32. Lenticels are the respiratory organs that exist in \_\_\_\_ part of the plant.



**Watch Video Solution**

33. Mangrove trees respire with their \_\_\_\_\_



**Watch Video Solution**

**34.** We will find vocal cords in

- A. Larynx
- B. Pharynx
- C. Nasal cavity
- D. Trachea

**Answer:**



**Watch Video Solution**

**35.** Cluster of air sacs in lungs are called

- A. Alveoli
- B. Bronchi
- C. Bronchioles
- D. Air spaces

**Answer:**



**Watch Video Solution**

**36.** Which of the following is correct ?

(i) The diaphragm contracts - volume of chest cavity increased

(ii) The diaphragm contracts - volume of chest cavity decreased

(iii) The diaphragm expands - volume of chest cavity Increased

(iv) The diaphragm expands - volume of chest cavity decreased

A. i

B. i and ii



C. ii and iii

D. iv

**Answer:**



**Watch Video Solution**

**37.** Respiration is a catabolic process because of

A. Breakdown of complex food molecules

B. Conversion of light energy

C. Synthesis of chemical energy

D. Energy storage

**Answer:**



**Watch Video Solution**

**38.** Energy is stored in

A. Nucleus

B. Mitochondria

C. Ribosomes

D. Cell wall

**Answer:**



**Watch Video Solution**

**39.** What happens if there is no epiglottis in human beings ?



**Watch Video Solution**

**40.** Swallowing and breathing will not take place at once. How can you prove with simple activity?



**Watch Video Solution**

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



**Watch Video Solution**

**42.** How you can prove that carbondioxide is essential for plants?



**Watch Video Solution**

**43.** How do you infer the presence of  $CO_2$  in respiration experiments ?



**Watch Video Solution**

**44.** How can we show that heat is liberated during respiration



**Watch Video Solution**

**45.** Explain the procedure you have adopted in your school to prove that heat is liberated during respiration. What result we will get, if you perform this experiment with dry seeds.



**Watch Video Solution**

**46.** Heat is evolved during respiration. How can you prove it?



**Watch Video Solution**

**47.** What gas was produced by combustion according to Lavoisier ?



**Watch Video Solution**

**48.** What did Lavoisier find out about air from the experiments ?



**Watch Video Solution**

**49.** What conclusion can be drawn from Lavoisier's experiments ?



**Watch Video Solution**



50. Which gas do you think is Lavoisier talking about when he says chalky acid gas ?



**Watch Video Solution**

51. Which gas according to Lavoisier is respirable air ?



**Watch Video Solution**

**52.** It is a common observation that our breath is warmer than the air around us , does respiration have anything to do with this ?



**Watch Video Solution**

**53.** What does this experiment indicate ?



**Watch Video Solution**

**54.** Which gas turns lime water milky ?



[Watch Video Solution](#)

**55.** Which gas do you think might be present in greater quantities ?



[Watch Video Solution](#)

**56.** We are also aware of the fact that water vapour deposits on a mirror if we breathe out on it , where does this water vapour come from in Exhaled air ?





[Watch Video Solution](#)

**57.** Why are we advised not to talk while eating food ?



[Watch Video Solution](#)

**58.** What can be concluded from this?



[Watch Video Solution](#)

**59.** What happens during the process of breathing?



**Watch Video Solution**

**60.** Which gas needs to be removed from our body during exhalation? Where does the extra amount of gas come from ?



**Watch Video Solution**

**61.** What is the composition of inhaled air?



**Watch Video Solution**

**62.** When exhaled air is compared with inhaled air, is there any difference in composition ?



**Watch Video Solution**

**63.** Why does the amount of oxygen vary between exhaled and inhaled air ?



[Watch Video Solution](#)

**64.** What has raised the percentage of carbon dioxide in exhaled air?



[Watch Video Solution](#)

**65.** After undergoing strenuous exercise we feel pain in muscles, does adequate oxygen reach the muscles ?



[Watch Video Solution](#)

**66.** What is being formed in the muscles ?



**Watch Video Solution**

**67.** In which set does the colour change faster  
? Why ?



**Watch Video Solution**



**68.** Can it be said that Priestly's experiment helped us to find out more about composition of air ? How ?



**Watch Video Solution**

**69.** What steps in the process of respiration does Lavoisier mention ?



**Watch Video Solution**

**70.** What is the role of diaphragm and ribs in respiration ? Are both active in man and woman?



**Watch Video Solution**

**71.** Do cells of alveoli or lungs also require oxygen to carry out cellular respiration ? Why / Why not ?



**Watch Video Solution**

**72.** What will happen if the respiratory tract is not moist ?



**Watch Video Solution**

**73.** Are both lungs similar in size ?



**Watch Video Solution**

**74.** Why are alveoli so small and uncountable in number ?





[Watch Video Solution](#)

**75.** Fermented idli, dosa produce smell. Name the microorganism responsible for producing such smell.



[Watch Video Solution](#)

**76.** In what compound, the energy released during the breakdown of glucose is stored?



[Watch Video Solution](#)

77. Name chemical substance produced in human muscles during Anaerobic respiration .



**Watch Video Solution**

78. Why Diazene Green solution is added to the Glucose solution in anaerobic respiration experiment ?



**Watch Video Solution**

**79.** Name the food material on which trypsin acts and name the end products



**Watch Video Solution**

**80.** Respiration is energy producing process in the organisms . It takes place both in the presence and absence of oxygen. Laxmi said there are some differences between the two processes . How do you support her ?



**Watch Video Solution**

**81.** What happens if there is no epiglottis in human beings ?



**Watch Video Solution**

**82.** State two similarities between aerobic and anaerobic respiration.



**Watch Video Solution**

**83.** Explain with the help of a flow chart, the path way of air in humans .



**Watch Video Solution**

**84.** How many molecules of inorganic phosphate are released in Calvin cycle in formation of one glucose ?



**Watch Video Solution**



**85.** What is anaerobic respiration ?



**Watch Video Solution**

**86.** What are the end products of Aerobic and Anaerobic Respirations?



**Watch Video Solution**

**87.** Name chemical substance produced in human muscles during Anaerobic respiration .



**Watch Video Solution**

**88.** Can we say that combustion and respiration are almost same actions. What evidences do you have for this ?



**Watch Video Solution**

**89.** What is the function of epiglottis ?



**Watch Video Solution**

**90.** What is the pathway of air from nostril to alveolus ?



**Watch Video Solution**

**91.** What is respiration ?



**Watch Video Solution**

**92.** What does the respiration mean ?



**Watch Video Solution**

**93.** Who did comprehensive work on properties of gases , their exchange and respiration ?



**Watch Video Solution**

**94.** What was the gas liberated on heating powdered charcoal in a bell jar ?



**Watch Video Solution**

95. What was produced by combustion according to Lavoisier ?



**Watch Video Solution**

96. What is vitiated air ?



**Watch Video Solution**

97. Which gas according to Lavoisier is respirable air ?



**Watch Video Solution**

**98.** Who was the renowned chemist ? Who wrote a textbook of Human Physiology ?



**Watch Video Solution**

**99.** What happens when air passes through nasal cavities ?



**Watch Video Solution**

**100.** What is the function of epiglottis ?



**Watch Video Solution**

**101.** Where does gaseous exchange take place in lungs ?



**Watch Video Solution**

**102.** What is breathing ?



**Watch Video Solution**

**103.** What is inspiration or inhalation ?



**Watch Video Solution**

**104.** What is expiration or exhalation ?



**Watch Video Solution**

**105.** What are pleura?



**Watch Video Solution**



**106.** What is cellular respiration ?



**Watch Video Solution**

**107.** What is aerobic respiration ?



**Watch Video Solution**

**108.** What is anaerobic respiration ?



**Watch Video Solution**

**109.** What does aerobic respiration occur in eukaryotic cells ?



**Watch Video Solution**

**110.** What is Glycolysis ?



**Watch Video Solution**

**111.** What is the fate of pyruvate in the absence of oxygen in plants ?



**Watch Video Solution**

**112.** What is the fate of pyruvate in the absence of oxygen in animals ?



**Watch Video Solution**

**113.** In aerobic respiration pyruvate is converted into ?



**Watch Video Solution**

**114.** What is the main reason for feeling pain in muscles after strenuous exercise ?



**Watch Video Solution**

**115.** What is fermentation ?



**Watch Video Solution**

**116.** By which process ethanol can be separated from yeast glucose mixture ?



**Watch Video Solution**

**117.** What is combustion ?



**Watch Video Solution**

**118.** In which organisms does exchange of gases take place through diffusion ?



**Watch Video Solution**

**119.** In tracheal, respiratory system which carry air directly to the cells in the tissues ?



**Watch Video Solution**

**120.** What are the respiratory organs of Dolphins ?



**Watch Video Solution**

**121.** What is cutaneous respiration ?



**Watch Video Solution**

**122.** What are the other areas on the plant body through which gaseous exchange takes

place ?



**Watch Video Solution**

**123.** What is the full form of ATP ? How is it formed ?



**Watch Video Solution**

**124.** What is the use of ATP ?



**Watch Video Solution**



**125.** What are the factors that control respiration ?



**Watch Video Solution**

**126.** What are the substances that are used for the production of energy in all living organisms ?



**Watch Video Solution**

**127.** How many types of respiration are present ? What are they ?



**Watch Video Solution**

**128.** Where is energy stored in ATP ?



**Watch Video Solution**

**129.** What is "the power house of the cell " ?



**Watch Video Solution**

**130.** What is the main differences between respiration and combustion ?



**Watch Video Solution**

**131.** What are the end products of aerobic respiration ?



**Watch Video Solution**

**132.** What is the equation that represents respiration ?



**Watch Video Solution**

**133.** What are the sites of cellular respiration ?



**Watch Video Solution**

**134.** What are cristae in mitochondria ?



**Watch Video Solution**

**135.** What is the net gain of ATP molecules in Glucolysis ?



**Watch Video Solution**

**136.** What are the number of ATP molecules produced when one glucose molecule is completely oxidised ?



**Watch Video Solution**

**137.** What are the three stages present in complete oxidation of glucose molecule ?



**Watch Video Solution**

**138.** Why does oxidation of fatty acids give more energy ?



**Watch Video Solution**

**139.** What is meant by aquatic animals and terrestrial animals ?



**Watch Video Solution**

**140.** Why is the rate of breathing in aquatic organisms such faster than terrestrial organisms ?



**Watch Video Solution**

**141.** Which part of roots is involved in the exchange of respiratory gases ?



**Watch Video Solution**

**142.** Name the areas in a woody stem through which respiratory exchange of gases takes place.



**Watch Video Solution**



**143.** Out of photosynthesis and respiration in plants which process occurs all the time and only at daytime ?



**Watch Video Solution**

**144.** Trachea divides into bronchi at the level of



**Watch Video Solution**

**145.** What is the average breathing rate in an adult man at rest ?



**Watch Video Solution**

**146.** How the trachea is prevented from collapsing ?



**Watch Video Solution**

**147.** What has raised the percentage of carbon dioxide in exhaled air?



**Watch Video Solution**

**148.** What are the reasons for the animals to develop different types of respiratory organs ?



**Watch Video Solution**

**149.** Why do fishes die when taken out of water ?



**Watch Video Solution**

**150.** What would be the consequences of deficiency of haemoglobin in our bodies ?



**Watch Video Solution**

**151.** Which gas do you think is Lavoisier talking about when he says chalky acid gas ?



**Watch Video Solution**

**152.** What is the composition of inhaled air?



**Watch Video Solution**

**153.** What is the composition of exhaled air ?



**Watch Video Solution**

**154.** Why does the amount of nitrogen not vary between exhaled and inhaled air ?



**Watch Video Solution**

**155.** In which kind of respiration is more energy released ?



**Watch Video Solution**

**156.** Which gases are exchanged in your lungs ?



**Watch Video Solution**

**157.** The parts that help in respiration of plants

stomata

Lenticels

Pneumatophores

Bark



**Watch Video Solution**

**158.** What are lenticels ?



**Watch Video Solution**

**159.** How does diaphragm help in inhalation ?



**Watch Video Solution**

**160.** Name the type of respiration in which the end products are (a)  $C_2H_5OH$  and  $CO_2$  , (b)



$CO_2$  and  $H_2O$  , (c ) Lactic acid



Watch Video Solution

**161.** Name the type of respiration in which the end products are (a) $C_2H_5OH$  and  $CO_2$  , (b)  $CO_2$  and  $H_2O$  , (c ) Lactic acid



Watch Video Solution

**162.** Name the type of respiration in which the end products are (a) $C_2H_5OH$  and  $CO_2$  , (b)

$CO_2$  and  $H_2O$  , (c ) Lactic acid



**Watch Video Solution**

**163.** "If there were no algae , there would be no fish in the sea." Comment.



**Watch Video Solution**

**164.** A person reached a specific distance once on foot and once by running . In which situation his legs pain ? Why



**Watch Video Solution**

**165.** What is the advantage of the wet and warm passage of air from the nostrils to capillaries ?



**Watch Video Solution**

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

Why was liquid paraffin poured on glucose?



**Watch Video Solution**

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

What did you understand about anaerobic respiration?



**Watch Video Solution**

**168.** See the below table . Write what you know from it .

| Gas            | % in inhaled air | % in exhaled air |
|----------------|------------------|------------------|
| Oxygen         | 21               | 16               |
| Carbon dioxide | 0.03             | 4.4              |
| Nitrogen       | 78               | 78               |



**Watch Video Solution**

**169.** How does the respiration in amoeba and hydra occur through diffusion ?



**Watch Video Solution**

**170.** What is the process through which respiration takes place in Amoeba and hydra ?



[Watch Video Solution](#)

**171.** What are different ways in which glucose is oxidised to provide energy in various organisms?



[Watch Video Solution](#)

**172.** How does respiration in plants differ from that in animals ?



[Watch Video Solution](#)

**173.** Write about respiration in mangroves that grow in marshy lands.



**Watch Video Solution**

**174.** Describe the structure of mitochondria with the help of a diagram.



**Watch Video Solution**

**175.** Which cell organelle is called energy currency or power house of cell ?



**Watch Video Solution**

**176.** Why does the exchange of gases happen only in alveoli, though arteries are present in pharynx, trachea and bronchus?



**Watch Video Solution**



**177.** Describe the structure of human lungs with the help of a diagram



**Watch Video Solution**

**178.** How does gaseous exchange occur in lungs ?



**Watch Video Solution**

**179.** What is the role of diaphragm and ribs in respiration ? Are both active in man and woman?



**Watch Video Solution**

**180.** Is respiration possible without diaphragm and ribs in human? Explain.



**Watch Video Solution**

**181.** I am a red coloured pigment present in the blood . I help in the transportation of gases . Who am I ?



**Watch Video Solution**

**182.** What are different ways in which glucose is oxidised to provide energy in various organisms?



**Watch Video Solution**

**183.** Write a brief note on respiration in plants.



**Watch Video Solution**

**184.** Write the adaptations seen in plants living in water logged conditions.



**Watch Video Solution**

**185.** Write a brief note on tracheal respiration in insects .





[Watch Video Solution](#)

**186.** How do you appreciate the mechanism of respiration in our body ?



[Watch Video Solution](#)

**187.** Explain the evolutionary changes in energy releasing system.



[Watch Video Solution](#)

**188.** Describe the structure of human lungs with the help of a diagram



**Watch Video Solution**

**189.** What is the definition given by Lavoisier for the 'element'?



**Watch Video Solution**

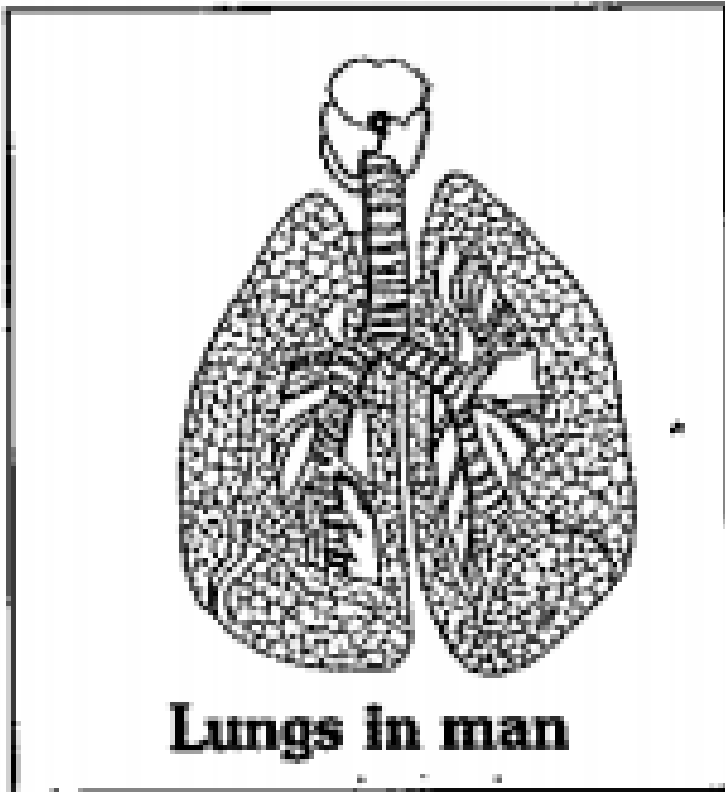
**190.** Draw a neat labelled diagram of power house of a cell. What is the function of inner

membrane ?



**Watch Video Solution**

**191.** Label the parts for given diagram.





[Watch Video Solution](#)

**192.** A student conducted an experiment in which he proved  $CO_2$  evolved in respiration of sprouts. Draw diagram of apparatus arrangement and label parts.



[Watch Video Solution](#)

**193.** In human respiratory system different stages are there beginning with nostril to



gaseous exchange between blood and cell.

Which of these stages do you think is amazing

? Why do you think so ?



**Watch Video Solution**

**194.** After learning this lesson, what precautions will you take to protect your lungs ?



**Watch Video Solution**

**195.** In which process food is broken down for release of energy ?

A. Photosynthesis

B. Respiration

C. Excretion

D. Circulation

**Answer:**



**Watch Video Solution**

**196.** From which language the word respiration came ?

A. English

B. Greek

C. Latin

D. French

**Answer:**



**Watch Video Solution**

**197.** What was the gas liberated on heating powdered charcoal in a bell jar ?

A. Carbon dioxide

B. Oxygen

C. Nitrogen

D. All

**Answer:**



**Watch Video Solution**

**198.** What gas is needed for combustion of substances ?

A. Oxygen

B. Carbon dioxide

C. Phosphorous

D. Nitrogen

**Answer:**



**Watch Video Solution**

**199.** The air we breathe out is warmer than air because.

A. Water

B. Lime water

C. Sodium Hydroxide

D. Sugar solution

**Answer:**



**Watch Video Solution**

**200.** In an annual plant, exchange of gases takes place mainly through

A. Bronchioles

B. Alveoli

C. Bronchus

D. Pleura

**Answer:**



**Watch Video Solution**

**201.** Air is filtered in this part of respiratory system.

A. Nose

B. Pharynx

C. Larynx

D. Nasal cavities

**Answer:**



**Watch Video Solution**



**202.** Name the muscular valve in the pharynx controls movement of air and food towards their respective passages .

A. Oesophagus

B. Palate

C. Glottis

D. Epiglottis

**Answer:**



**Watch Video Solution**

**203.** From where do the single celled organisms get oxygen ?

A. Air

B. Soil

C. Water

D. Both air and water

**Answer:**



**Watch Video Solution**

**204.** Vocal cords are present in this part of respiration system

A. Pharynx

B. Larynx

C. Bronchus

D. Lungs

**Answer:**



**Watch Video Solution**

**205.** Trachea are found in

- A. Wind pipe
- B. Sound box
- C. Vocal cords
- D. Septum

**Answer:**



**Watch Video Solution**

**206.** Cluster of air sacs in lungs are called

A.  $60m^2$

B.  $160m^2$

C.  $80m^2$

D.  $100m^2$

**Answer:**



**Watch Video Solution**

**207.** Name the structure that plays important role in respiratory movements.

A. Rib cage

B. Diaphragm

C. Epiglottis

D. Oesophagus

**Answer:**



**Watch Video Solution**

**208.** What is the percentage of oxygen in the exhaled air ?

A. 21

B. 16

C. 79

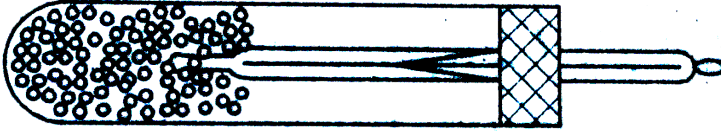
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**Answer:**



**Watch Video Solution**

**209.** The following alternative apparatus arrangement is to prove \_\_\_\_



- A.  $CO_2$  is evolved in respiration
- B.  $O_2$  is released in respiration
- C.  $CO_2$  is released in respiration
- D. Heat is released in respiration

**Answer:**



**Watch Video Solution**



**210.** Name the oxygen carrying pigment in blood

A. Haemoglobin

B. Prothrombin

C. Fibrinogen

D. All

**Answer:**



**Watch Video Solution**

## 211. Cellular respiration

- A. Mitochondria
- B. Cytoplasm
- C. Both Mitochondria and Cytoplasm
- D. Cell membrane

**Answer:**



**Watch Video Solution**

**212.** What are the number of ATP molecules produced when one glucose molecule is completely oxidised ?

A. 7600 calories

B. 7800 calories

C. 7200 calories

D. 7500 calories

**Answer:**



**Watch Video Solution**

**213.** Name the first stage in the oxidation of glucose molecule.

- A. Krebs cycle
- B. Calvin cycle
- C. Electron transport
- D. Glycolysis

**Answer:**



**Watch Video Solution**

**214.** Accumulation of this results in muscular pain

A. Citric acid

B. Nitric acid

C. Lactic acid

D. Hydrochloric acid

**Answer:**



**Watch Video Solution**

**215.** The volume of the dough increased in bread preparation due to

- A. Diffusion
- B. Fermentation
- C. Distillation
- D. Evaporation

**Answer:**



**Watch Video Solution**

**216.** Identify the correct path in Human respiratory system.

A. 1. Cellular respiration → Gaseous exchange at tissue level → Gas transport by blood → Gaseous exchange at lungs → Breathing

B. 2. Breathing → Exchange of gases at lungs → Gas transport by blood → Gaseous exchange at tissue level → Cellular respiration

C. 3.Exchange of gases at lungs →

Breathing → Gas transport by blood

→ Cellular respiration → Exchange of  
gases in lungs

D. 4.Gas transport by blood → Exchange

of gases in lungs → Breathing →

Cellular respiration → Exchange of  
gases at tissue level

**Answer:**



**Watch Video Solution**



**217.** The intermediate product formed when  $NH_3$  is prepared from urea is

- A. Combustion
- B. Respiration and Combustion
- C. Respiration
- D. Heating charcoal powder

**Answer:**



**Watch Video Solution**

**218.** What are the respiratory organs of Cockroach ?

- A. Blood vessels
- B. Mucous glands
- C. Gills
- D. Trachea

**Answer:**



**Watch Video Solution**

**219.** How does the respiration in amoeba and hydra occur through diffusion ?

A. Transpiration

B. Osmosis

C. Diffusion

D. Inhalation

**Answer:**



**Watch Video Solution**

**220.** What is cutaneous respiration ?

A. Frog

B. Earthworm

C. Leech

D. All

**Answer:**



**Watch Video Solution**

**221.** What are the reasons for the animals to develop different types of respiratory organs ?

A. Body size, habitat in which they live

B. Availability of water

C. Type of circulatory system

D. All the above

**Answer:**



**Watch Video Solution**

**222.** Four pairs of gills covered with operculum is seen in

- A. Terrestrial respiration
- B. Aquatic respiration
- C. Pulmonary respiration
- D. All types of respiration

**Answer:**



**Watch Video Solution**

**223.** Pulmonary respiration occurs through

A. Skin

B. Lungs

C. Tracheal

D. Bronchus

**Answer:**



**Watch Video Solution**

**224.** Haemoglobin is a

- A. Oxygen only
- B. Carbon dioxide only
- C. Both oxygen and carbon dioxide
- D. Nitrogen only

**Answer:**



**Watch Video Solution**



**225.** In an annual plant, exchange of gases takes place mainly through

- A. Stomata
- B. Surface of roots
- C. Lenticels on stem
- D. All the above

**Answer:**



**Watch Video Solution**

**226.** Breathing roots are present in

- A. Aquatic plants
- B. Mangrove plants
- C. Terrestrial plants
- D. Desert plants

**Answer:**



**Watch Video Solution**

227. What are the end products of aerobic respiration ?

A.  $CO_2$

B.  $H_2O$

C. Energy

D. All the above

**Answer:**



**Watch Video Solution**

**228.** During daytime the rate of this process is usually higher than respiration\_\_\_\_\_

A. Photosynthesis

B. Transport

C. Nutrition

D. Circulation

**Answer:**



**Watch Video Solution**

**229.** Name the structure that plays important role in respiratory movements.

A. Epiglottis

B. Sinus venosus

C. Monocyte

D. Diaphragm

**Answer:**



**Watch Video Solution**

**230.** The number of lobes in the right and left lung of man respectively are

A. 2

B. 3

C. 4

D. 5

**Answer:**



**Watch Video Solution**

**231.** From Nasal cavity the air goes into pharynx After pharynx the track is divided into passage Those are .....,.....

(1) Stomach, duodenum

(2) Trachea, digestive canal

(3) Larynx, Epiglottis

A. A part of Trachea

B. A part of lungs

C. An upper part of Trachea

D. A part of Bronchiole

**Answer:**



**Watch Video Solution**

**232.** Which of the following is the correct sequence of air passage during in- halation?

A. Nostrils → Larynx → Pharynx →

Trachea → Alveoli

B. Nasal passage → Trachea → Pharynx

→ Larynx → Alveoli



C. Nasal passage → Trachea → Pharynx

→ Larynx → Alveoli

D. Nostrils → Pharynx → Larynx →

Trachea → Alveoli

**Answer:**



**Watch Video Solution**

**233.** Energy currency of the cell is

A. ATP

B. DDT

C. DTP

D. ADP

**Answer:**



**Watch Video Solution**

**234.** In cockroaches air enters the body through

A. Lungs

B. Gills

C. Spiracles

D. Skin

**Answer:**



**Watch Video Solution**

**235.** Which of the following is most likely to have higher breathing rate?

A. Dog

B. Cat

C. Buffalo

D. Man

**Answer:**



**Watch Video Solution**

**236.** Exhaled air contains \_\_\_ and \_\_\_

A. Carbon dioxide

B.  $H_2O$

C. Nitrogen

D.  $CO_2$ ,  $H_2O$

**Answer:**



**Watch Video Solution**

**237.** A flap like muscular valve controls movement of air and food is \_\_\_\_\_

A. Glottis

B. Palate

C. Epiglottis

D. Larynx

**Answer:**



**Watch Video Solution**

**238.** Lenticels are the respiratory organs that exist in \_\_\_\_ part of the plant.

A. Young

B. Soft

C. Woody

D. None

**Answer:**



**Watch Video Solution**

**239.** Mangrove trees respire with their \_\_\_\_\_

A. Stems

B. Leaves

C. Aerial roots

D. Roots

**Answer:**



**Watch Video Solution**

**240.** Cluster of air sacs in lungs are called

A. Bronchioles

B. Bronchus

C. Bronchi

D. All the above



**Answer:**



**Watch Video Solution**

**241.** Breathing roots are present in

- A. Inhaling
- B. Exhaling
- C. Inhaling and exhaling
- D. Taking in  $CO_2$ ,

**Answer:**



**Watch Video Solution**

**242.** Flattened muscular structure that helps the lungs in moving air into and out of them

- A. Ribs
- B. Diaphragm
- C. Chest wall
- D. Skin

**Answer:**



**243.** What occupies the space between the pleural membranes of the lungs?

A. Heart

B. Liver

C. Lungs

D. Kidney

**Answer:**



**244.** What is the percentage of  $CO_2$  in exhaled air ?

A. 0.04

B. 4

C. 14

D. 5

**Answer:**



**Watch Video Solution**

**245.** In a normal healthy individual, the volume of air remaining in the lungs even after forcible expiration is about

A. 5800 ml

B. 4600 ml

C. 1200 ml

D. 500 ml

**Answer:**



**Watch Video Solution**

**246.** Heamoglobin contians an atom of

A. Magnesium

B. Calcium

C. Potassium

D. Iron

**Answer:**



**Watch Video Solution**

**247.** What is the unstable compound formed ,  
when oxygen combines with haemoglobin.

A. Oxyhaemoglobin

B. Haemo oxygen

C. Haemogloboxide

D. None

**Answer:**



**Watch Video Solution**

**248.** About seven percent of carbon dioxide is transported to the lungs

- A. Carbonate
- B. Bicarbonate
- C. Haemocarbonate
- D. All the above

**Answer:**



**Watch Video Solution**



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

At a height of 13 km , the concentration of oxygen is much lower about 1/6th at sea level.

A. Much higher than the oxygen at sea level

B. Much lower about  $\frac{1}{5}$ th at sea level

C. Much lower about  $\frac{1}{6}$  that sea level

D. Equal to oxygen at sea level

**Answer:**



**Watch Video Solution**

**250.** In which plants we can observe a special tissue to produce oxygen for respiration ?

- A.  $\frac{1}{3}$ rd of that in the lungs
- B.  $\frac{1}{4}$  th of that in the lungs
- C.  $\frac{1}{5}$  th of that in the lungs
- D.  $\frac{1}{2}$  of that in the lungs

**Answer:**



**Watch Video Solution**

**251.** What are the sites of cellular respiration ?

- A. Cytoplasm
- B. Mitochondria
- C. Cytoplasm, mitochondria
- D. Mitochondria, Ribosomes

**Answer:**



Watch Video Solution

**252.** In glycolysis , the glucose is converted into which form ?

A. Three molecules of pyruvic acid

B. Two molecules of pyruvic acid

C.  $CO_2$  and  $H_2O$

D.  $CO_2$  and enegy

**Answer:**



**253.** After undergoing strenuous exercise we feel pain in muscles, does adequate oxygen reach the muscles ?

- A. Oxygen debt
- B.  $CO_2$ , debt
- C. Nitrogen debt
- D. All the above

**Answer:**





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**254.** Wild yeasts are normally found growing on the skins of fruits like

A. Grapes

B. Apples

C. Banana

D. Grapes and apples

**Answer:**



[Watch Video Solution](#)

255. We can remove dissolved oxygen from glucose solution by heating it for

- A. An hour
- B. A second
- C. A minute
- D. Two hours

**Answer:**



**Watch Video Solution**

**256.** The blue dye Diazine green turns to which colour when the supply of oxygen around it is short ?

A. Red

B. Pink

C. Yellow

D. Black

**Answer:**



**Watch Video Solution**



**257.** Which gas is released when a baker prepares a dough by mixing yeast in it ?

A. Carbon monoxide

B. Carbon dioxide

C. Oxygen

D. Nitrogen dioxide

**Answer:**



**Watch Video Solution**

**258.** In Alcoholic fermentation of Glucose, the net gain of  $NADH_2$  is

A. Methanol

B. Ethanol

C. Acetic acid

D. Nitric acid

**Answer:**



**Watch Video Solution**

**259.** When we preserve idly , dosa dough at our home, we will notice the smell of alcohol.

Can you guess the reason for it ?

A. Fermentation

B. Distillation

C. Carboxylation

D. Nitrification

**Answer:**



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**260.** Ethanol and ethanal are separated from their mixture using the reagent

A. Destructive distillation

B. Fractional distillation

C. Fermentation

D. Decantation

**Answer:**



**Watch Video Solution**

**261.** Ethanol boils at a lower temperature of.....

A. About  $60^{\circ}\text{C}$

B. About  $65^{\circ}\text{C}$

C. About  $70^{\circ}\text{C}$

D. About  $75^{\circ}\text{C}$

**Answer:**



**Watch Video Solution**

**262.** Identify the scientist. " Respiration was a process like combustion"

A. Joseph Priestley

B. Jan Ingenhousz

C. Engelman

D. Lavoisier

**Answer:**



**Watch Video Solution**

**263.** Read the following table answer the following questions.

| ORGANISM          | ORGAN   | PROCESS   |
|-------------------|---------|-----------|
| 1. Amoeba / Hydra | —       | Diffusion |
| 2. Insects        | Trachea | Tracheal  |
| 3. Fish           | Gills   | Branchial |
| 4. Frog           | Skin    | Cutaneous |

Skin is the respiratory organ in which organisms?

- A. Tracheal respiration
- B. Bronchial respiration
- C. Cutaneous respiration
- D. Pulmonary respiration

**Answer:**



**Watch Video Solution**

**264.** In plants gaseous exchange occurs through ?

A. Stomach

B. Root

C. Air spaces

D. Grand cells



**Answer:**



**Watch Video Solution**

**265.** The rate of diffusion of respiratory gases is affected by:

A. Amoeba

B. Hydra

C. Planarians

D. All the above

**Answer:**



**Watch Video Solution**

**266.** In which plants we can observe a special tissue to produce oxygen for respiration ?

A. Mangrove

B. Fern

C. Orchids

D. Ornamental

**Answer:**



**Watch Video Solution**

**267.** Write the adaptations seen in plants living in water logged conditions.

- A. Much larger air spaces in stems
- B. Hollow stem
- C. Much larger air spaces and hollow stem
- D. None

**Answer:**



**Watch Video Solution**

**268.** Respiration is a catabolic process because of

- A. Anabolic process
- B. Catabolic process
- C. Fermentation process
- D. None

**Answer:**



**Watch Video Solution**

**269.** During daytime the rate of this process is usually higher than respiration\_\_\_\_\_

A. Photosynthesis

B. Respiration

C. Transport

D. Transpiration

**Answer:**



**Watch Video Solution**

**270.** The partial pressure of oxygen in the alveoli of the lungs is

A. Kidney

B. Lungs

C. Blood

D. Liver

**Answer:**



**Watch Video Solution**

**271.** Vocal cords are present in this part of respiration system

- A. Larynx
- B. Pharynx
- C. Trachea
- D. Glottis

**Answer:**



**Watch Video Solution**

**272.** In earthworm hameoglobin is present in

A. Blood

B. Plasma

C. Lymph

D. All the above

**Answer:**





**Watch Video Solution**

**273.** Name the part that plays major role in respiratory movements in woman .

A. Diaphragm

B. Lungs

C. Liver

D. Ribs

**Answer:**



**274.** Animals which live on land are called

- A. Terrestrial animals
- B. Aquatic animals
- C. Amphibious animals
- D. Nocturnal animals

**Answer:**



**Watch Video Solution**

**275.** Most animals that live in deep oceanic waters are :

A. Land

B. Forest

C. Water

D. Desert

**Answer:**



**Watch Video Solution**

**276.** Amphibious animal

A. Frog

B. Salamander

C. Frog and Salamander

D. Lizard

**Answer:**



**Watch Video Solution**

**277.** Animals that can live both on land and water are called

- A. Terrestrial animals
- B. Amphibious animals
- C. Aquatic animals
- D. Diurnal animals

**Answer:**



**Watch Video Solution**

**278.** In man nostrils open into

A. Pharynx

B. Larynx

C. Nasal cavities

D. Palate

**Answer:**



**Watch Video Solution**

**279.** Which of the following group constitute the right pathway of gases in the respiratory system ?

A. Nostrils → Nasal cavity → Larynx → Pharynx → Bronchus → Trachea → Bronchioles → Alveolus → Blood

B.Nostrils → Nasal cavity → Pharynx → Larynx → Trachea → Bronchus → Bronchioles → Alveolus → Blood

A. Vocal cards

B. Cartilaginous rings

C. Dust

D. All of the above

**Answer:**



**Watch Video Solution**

**280.** Trachea are found in

A. Air pipe

B. Sound pipe

C. Wind pipe



D. Anaemo pipe

**Answer:**



**Watch Video Solution**

**281.** By which process the carbondioxide in the blood is exchanged for oxygen in the alveoli ?

A. Osmosis

B. Diffusion

C. Osmoregulation

## D. Cohesion

**Answer:**



**Watch Video Solution**

**282.** In which animals we can observe tracheal respiratory system ?

A. Aves

B. Insects

C. Reptiles

D. Mammals

**Answer:**



**Watch Video Solution**

**283.** Breathing roots are present in

A. Mangrove plants

B. Orchids

C. Ornamental plants

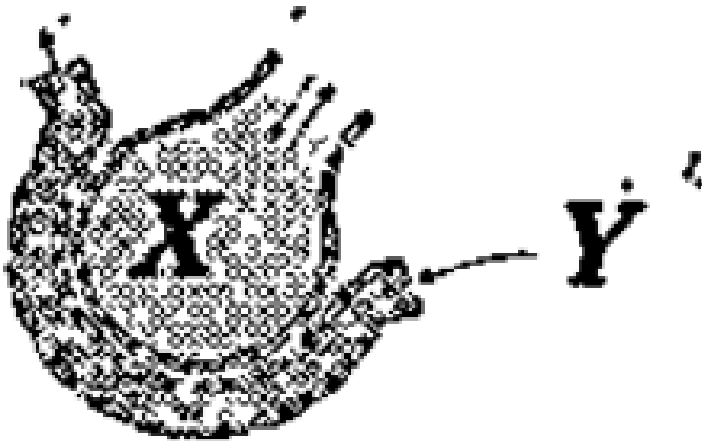
D. Desert plants

**Answer:**



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**284.** Label the parts X and Y in given diagram.



A.  $CO_2$ , capillary network

B. Alveolus,  $O_2$

C.  $O_2, CO_2$

D. Blood cell,  $CO_2$

**Answer:**



**Watch Video Solution**

**285.** What is anaerobic respiration ?

A. It takes place in all flowering plants

B. It produces more energy and heat

C. It produces less energy

D. End product is  $CO_2, H_2O$  only

**Answer:**



**Watch Video Solution**

**286.** What is the role of Janus Green -B indicator in anaerobic experiment with yeast ?

A. To test presence of  $CO_2$

B. To test presence of Hydrogen

C. To test presence of yeast

D. To test the presence of oxygen

**Answer:**



**Watch Video Solution**

**287.** What are the components present in exhaled air ?

A.  $CO_2, O_2$

B.  $O_2$  water vapour

C.  $CO_2$  water vapour

D. Water vapour

**Answer:**



**Watch Video Solution**

**288.** A living system has a continuous inflow of chemical energy in the form of food and out flow in the form of removal of waste. Such a system is called

A. Pressure



B. Water vapour

C. Heat

D. None

**Answer:**



**Watch Video Solution**

**289.** Power houses of the cell is

A. Golgi complex

B. Endoplasmic reticulum

C. Mitochondria

D. Vacuole

**Answer:**



**Watch Video Solution**

**290.** Energy is stored in

A. 7200cal

B. 7200 kilo cal

C. 7500 cal

D. 7500 kilo cal

**Answer:**



**Watch Video Solution**

**291.** When carbondioxide gas is passed through lime water, latter turns milky whitedue to the formation of:

A. Oxygen

B. Carbon dioxide

C. Nitrogen

D. Water vapour

**Answer:**



**Watch Video Solution**

**292.** Enzymatic machinery required for partial breakdown of glucose into two molecules of pyruvic acid without the involvement of oxygen is present in

A. Cytoplasm

B. Chloroplast

C. Mitochondria

D. Golgibody

**Answer:**



**Watch Video Solution**

**293.** The photosynthesis in a plant is not taking place during the daytime if the plant is releasing

A. Water vapour

B. Oxygen

C. Carbon dioxide

D. All of the above

**Answer:**



**Watch Video Solution**

**294.** What are the components present in exhaled air ?

A.  $CO_2$

B. Water vapour

C. Nitrogen

D. All

**Answer:**



**Watch Video Solution**

**295.** What has raised the percentage of carbon dioxide in exhaled air?

A. 0.0004

B.  $5.0\text{E-}5$

C. 0.04

D. 0.05

**Answer:**



**Watch Video Solution**

**296.** Products formed due to the fermentation of pyruvate by yeasts are



A. Ethanol

B.  $CO_2$

C. Energy

D. All of the above

**Answer:**



**Watch Video Solution**

**297.** The involuntary actions like respiration is under the control of .....(1) a part of ..... system (2).

A. Lurigs

B. Cerebrum

C. Medulla oblongata

D. Cerebellum

**Answer:**



**Watch Video Solution**

**298.** Aerobic respiration is more advantageous because it

A. Yields less energy

B. Occurs in the absence of oxygen

C. Yields more energy

D. Causes Incomplete breakdown of  
organic molecules

**Answer:**



**Watch Video Solution**

**299.** The mechanism of breakdown of food materials within the cells to release energy is called

- A. Expiration
- B. Inspiration
- C. Cellular respiration
- D. Anaerobic respiration

**Answer:**



**Watch Video Solution**

**300.** Pharynx opens into trachea through

- A. Glottis
- B. Larynx
- C. Epiglottis
- D. Palate

**Answer:**



**Watch Video Solution**

**301.** What occupies the space between the pleural membranes of the lungs?

A. Cerebrospinal fluid

B. Pericardial fluid

C. Vaccum

D. Pleural fluid

**Answer:**



**Watch Video Solution**

**302.** What is the percentage of oxygen in atmosphere ?

A. 0.18

B. 0.16

C. 0.79

D. 0.21

**Answer:**



**Watch Video Solution**

**303.** What is the percentage of oxygen in the exhaled air ?

A. 0.21

B. 0.2

C. 0.16

D. 0.19

**Answer:**



**Watch Video Solution**



**304.** Identify the scientist. " Respiration was a process like combustion"

A. energy is stored in the form of ADP

B. energy is used up

C. energy is released and stored in the form of ATP

D. energy is not released at all

**Answer:**



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**305.** Which among the following are the smallest living known without a definite cell wall, pathogenic to plants as well as animals and can survive without oxygen ?

A. Amoeba

B. Sheep

C. Yeast

D. Leech

**Answer:**



**Watch Video Solution**

**306.** What are the respiratory organs of Dolphins ?

A. Lungs

B. Gills

C. Skin

D. Trachea

**Answer:**



**Watch Video Solution**

**307.** Carbon dioxide

A. respirable air

B. chalky air

C. Inhaled air

D. Atmospheric air

**Answer:**



**Watch Video Solution**

**308.** The air we breathe out is warmer than air because.

- A. Heat is liberated
- B. Carbon dioxide is liberated
- C. Nitrogen is liberated.
- D. All of the above

**Answer:**



**Watch Video Solution**

**309.** Carbondioxide turns lime water into milky white due to the formation of \_\_\_\_\_

- A. Oxygen
- B. Water vapour
- C. Carbon dioxide
- D. None of the above

**Answer:**



**Watch Video Solution**

**310.** The greater quantity of atmospheric air is of

A. Nitrogen

B. Oxygen

C.  $CO_2$

D. Water vapour

**Answer:**



**Watch Video Solution**

**311.** Fermentation is

A. Fungi

B. Algae

C. Bacteria

D. Yeast

**Answer:**



**Watch Video Solution**



**312.** In which process food is broken down for release of energy ?

A. Digestion

B. Respiration

C. Excretion

D. Photosynthesis

**Answer:**



**Watch Video Solution**

**313.** Name the respiratory organs present in fish

A. Skin

B. Lungs

C. Gills

D. trachea

**Answer:**



**Watch Video Solution**

**314.** In which organisms does exchange of gases take place through diffusion ?

A. Amoeba

B. Hydra

C. Planaria

D. All the above

**Answer:**



**Watch Video Solution**

**315.** The flexible and flattened muscle present in the chest cavity which is useful to move lungs forward and backward is

A. Circular muscle

B. Cardiac muscle

C. Diaphragm

D. None of these

**Answer:**



**Watch Video Solution**

**316.** The structure that is spongy to

A. Heart

B. Lungs

C. Kidney

D. None of these

**Answer:**



**Watch Video Solution**

**317.** The layer that encloses lungs are called plura. Likewise the layer that covers heart is called

A. Mucous membrane

B. Pericardium

C. Pleura

D. Tympanum

**Answer:**



**Watch Video Solution**

**318.** Oil is applied on the lower side of the leaf

The result is

A. Photosynthesis does not take place.

B. Respiration does not take place.

C. Transpiration does not take place.

D. All the above

**Answer:**



**Watch Video Solution**

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

At a height of 13 km , the concentration of oxygen is much lower about 1/6th at sea level.

A. much lower

B. medium

C. higher

D. zero level

**Answer:**



**Watch Video Solution**



**320.** All movements of breathing are controlled by

A. muscles

B. nerves

C. diaphragm

D. ribs

**Answer:**



**Watch Video Solution**

**321.** Human haemoglobin is made up of

A. Globin

B. Iron

C. Porphyrin

D. All the above

**Answer:**



**Watch Video Solution**

**322.** Observe the following statements. a) All living cells of an organism perform respiration,  
b) Respiration is a catabolic process.

A. a correct, b false

B. b correct, a false

C. Both a, b false

D. Both a, b correct

**Answer:**



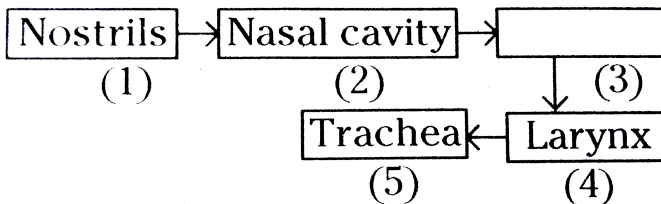
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323. Man : Lungs , Frog : \_\_\_\_\_



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324. Complete this flow chart .



A. Bronchus

B. Alveolus

C. Pharynx

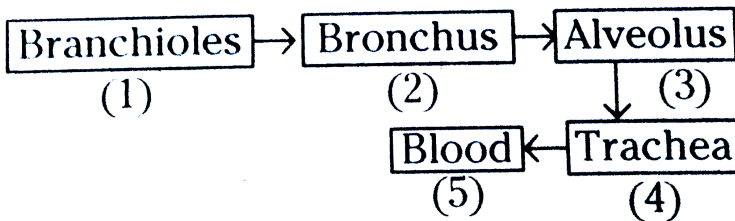
## D. Bronchioles

**Answer:**



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**325.** Arrange the following flow chart in the correct order .



**A. 1,3,5,4,2**

B. 3,2,5,1,4

C. 3,1,2,4,5

D. 3,1,2,5,4

**Answer:**



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**326.** I occur when 'oxygen debt ' arises in muscles . I cause muscle cramps. Who am I ?

A. Lack of energy

B. Lack of vitamins

C. Strenuous exercises

D. none

**Answer:**



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**327.** Respiration in euglena takes place through

A. gills

B. skin

C. lungs

D. diffusion

**Answer:**



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**328.** What is the life span of RBC ?

A. 120 days

B. 130 days



C. 140 days

D. 100 days

**Answer:**



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