

## 2. RESPIRATION - ENERGY RELEASING SYSTEM

### MULTIPLE CHOICE QUESTIONS

- The word respiration comes from, respire mean ( A )  
 A) Respire (Inhalation)                      B) Inspire (Inhalation)  
 C) Respire (Exhalation)                      D) Inspire (Exhalation)
- The process which is called as a process involving passage of air and production of body heat earlier ( B )  
 A) Excretion                      B) Respiration                      C) Transport                      D) Coordination
- Fundamental unit of lungs. ( C )  
 (or) When does the gaseous exchange occurs  
 A) Pharynx                      B) Trachea                      C) Alveolus                      D) Nasal cavity
- Main components in chlorophyll and haemoglobin ( B )  
 i) Fe                      ii) mg                      iii) cu                      iv) co  
 A) i, ii                      B) i, ii                      C) i, iv                      D) ii, iii
- Respired air ( B )  
 i) Does not have O<sub>2</sub>                      ii) Having more CO<sub>2</sub>  
 iii) Having water vapour                      iv) Warm  
 A) i, ii, iii                      B) ii, iii, iv                      C) i, iii                      D) i, v
- Which is not a correct statement. ( C )  
 i) Respiration is a oxidation process  
 ii) Respiration is a catabolic process  
 iii) Respiration does not occur during day time in plants  
 iv) Respiration occurs in few living organisms.  
 A) i, ii                      B) ii, iii                      C) iii, iv                      D) ii, iv
- Ravi applied oil on the lowe side of the leaf which one of the following effected? ( A )  
 i) Respiration                      ii) Photosynthesis                      iii) Excretion                      iv) Transport  
 A) i, ii                      B) ii, iii                      C) iii, v                      D) ii, iv
- Which is correct. ( C )  
 1. Insects ( )                      A) Gills  
 2. Frog ( )                      B) Tracheal respiration  
 3. Fish ( )                      C) lungs  
 A) 1 and 2                      B) 2 and 3                      C) only 3                      D) None of the above
1. Epiglottis ( )                      a) Plura  
 2. Sound Box ( )                      b) Transport of gases  
 3. Lungs ( )                      c) Exchange of gases  
 4. Alveoli ( )                      d) Vocal cards  
 5. Haemoglobin ( )                      e) Regulation of food and gases  
 A) 1-e, 2-d, 3-a, 4-c, 5-b                      B) 1-a, 2-b, 3-c, 4-d, 5-e  
 C) 1-e, 2-b, 3-a, 4-c, 5-d                      D) 1-e, 2-d, 3-c, 4-b, 5-a

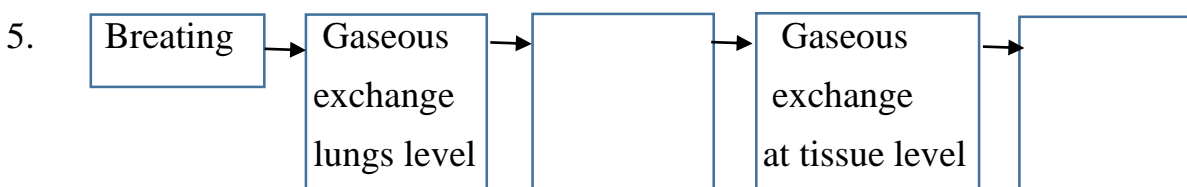
10. 1. Muscles ( ) a) photo synthesis  
 2. Stomata ( ) b) Respiration  
 3. Lenti ( ) c) Leaf  
 4. Catabolic process ( ) d) Stem  
 5. Anabolic process ( ) e) Anaerobic respiration  
 A) 1-e, 2-c, 3-d, 4-b, 5-a B) 1-a, 2-b, 3-c, 4-d, 5-e  
 C) 1-e, 2-b, 3-c, 4-d, 5-e D) 1-e, 2-c, 3-b, 4d, 5-a

**1 Mark question :**

1. According to Lavoisier What gas was produced by combustion, which gas is respirable air?  
 A. CO<sub>2</sub> (Carbon di oxide, fixed air), O<sub>2</sub> (Oxygen claky acid gas)  
 2. What are the factors that control respiration?  
 A. 1. Temperature 2. Exercise 3. Availability of oxygen  
 4. Enzymes reaction 5. Mental and physical state 6. Surroundings  
 3. What is the full form of A.T.P. (or) What is cellular currency?  
 A. Adenosine triphosphate (ATp)  
 4. What is the equation that represent respiration  
 A. C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>+6O<sub>2</sub> 6CO<sub>2</sub>+ 6H<sub>2</sub>O + 686 K. Cal  
 5. What are the end products in anaerobic respiration  
 A. Lactic acid / ethynol, CO<sub>2</sub> energy.

**2 MARKS QUESTIONS**

1. What is the picture? Write the role in Respiration? (and)  
 Air leaves the tiny sacs in the lungs to pass into capillaries. What modifications is needed in the statement?  
 2. Why does a deep sea diver carry oxygen cylinder on her back?  
 3. What is meant by inspiration and Expiration  
 4. What questions do you ask your teacher to know about cellular respiration?



Fill the flow charge and write about inspiration and expiration  
 (and)

Fill the flow charge and write about Gastransport by blood

(and)

Fill the flow chart and write about gaseous exchange at tissue level

(and)

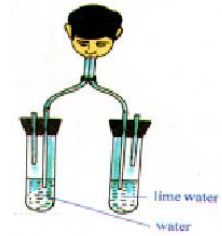
Fill the flow chart and write about cellular respiration

(or)

What is cellular respiration?

6.

- a) In this experiment which gas turns lime water milky.
- b) Which gas do you think might be present in greater quantities in the air we breathe out as compared to air around us?



7. What will happen if the respiratory tract is not moist

(or)

What is reason behind inhaled air get moistured when it reached lungs.

8. Why are we advised not to talk while eating food

(or)

Food sometimes enters the wind pipe and causes choking how does it happen?

9. How can you appreciate the role of apiglhis in the process of respiration?
10. Write differences between inspiration and experation?
11. What is the reason behind increase the rate of respiration after a vigorous exercise.

12. Fill the table

Gas	% in inhaled air	%. in exhaled air
oxygen		
CO <sub>2</sub>		
Nitrogen		

13. What will happen if haemoglobin absent in humans?

(or)

What is the role of haemoglobin in humans.

14. Write the differences between respiration and combustion.
15. Raju said “Stem also respire along with leaves in plants” can you support this statement - Give your reasons.
16. Write the differences between photosynthesis and respiration.

(or)

Write the differences between anabolic and catabolic process.

17. If you have chance to meet pulmonologist. What questions are you going to ask about respiration and respiratory diseases.
18. Why are mitochondria called power house of cell?
19. What is fermentation.

#### 4 MARKS QUESTIONS

1. What is the role of diaphragm and ribs in respiration  
(or)

What happen if diaphragm is absent in human beings  
(and)

How can you appreciate the role diaphragm in respiration.

Explain the process of respiratino by using following key words.

1. Diaphragm      2. Ribs      3. Inspiration      4. Expiration

2. Write the process of respiration with the flow chart.
3. What is the pathway taken by air in the respiratory system? Illustrate with a labelled diagram.

(or)

labelled the diagram and explain about pharynx (and)

labelled the diagram and explain about larynx (and)

labelled the diagram and explain about Alveolus

How can alveoli designed to maximize the exchange of gas?

(or)

Why the internal layer of the lungs is multi folded

(or)

Why the lungs have tiny and numerous number of air sacs.

4. Write the difference between Aerobic respiration and Anaerobic respiration.

(or)

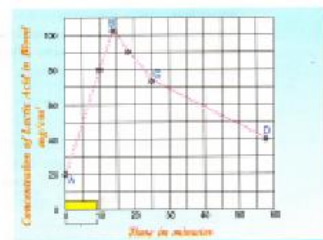
Write the difference between the respiration takes place in the presence of oxygen and absence of the oxygen.

5. After a vigorous exercise or work we feel pain in muscles what is the relation between pain and respiration.

6.

a) What respiration represent the graph

b) What is meant by oxygen deficit.



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

7. What procedure do you follow to understand \_\_\_\_\_ in your school laboratory?

(or)

Ramu used yeast, lime water, paraffin for an experiment. Write the procedure of that experiment.

1. What is the aim of the experiment.
2. Why the glucose solution is boiled
3. Why did Yempour praffin on glucose solution
4. What change do you observe in lime water, what it indicates?
5. In the experiment what are anaerobically respire.

8. Write an experiment to observe changes during combustion of sugar.

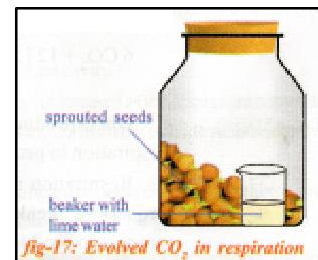
(or)

Sita done an experiment with combustion of sugar. Write the procedure.

9. "Respiration is a catabolic process". Support and explan.
10. Write the uses of anaerobic respiration in daily life?
11. Most plants can aerate their roots by taking in the oxygen through the lenticels or through the surface of their root hairs, they obtain oxygen from the air spaces existing between the soil particles. But plants which have their roots in very wet places such as ponds or marshes are unable to obtain oxygen. They are adapted to these water logged conditions.
  - a) How can aerial roots are useful.
  - b) Why the roots of plants grows on water logged conditions are aerial.

12.

1. What is the aim
2. What are the aparatus used in the experiment
3. Which gas turns lime water into milky
4. Why the sprouted seeds are used in the experiment.



13.

1. What is the aim
2. What is change you observed in thermometer, why?
3. Draw a graph on time and temperature based on your observation.
4. What precautions do you taken.

