



# BIOLOGY

## BOOKS - ICSE

### RESPIRATORY SYSTEM

**Exercises Tick The Most Appropriate Answer**

1. The products of respiration are

A. carbon dioxide and oxygen.

B. oxygen and energy.

C. carbon dioxide, water and energy.

D. carbon dioxide, oxygen and energy.

**Answer:**



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2. Glucose is oxidized to produce ethyl alcohol during

A. excretion.

B. aerobic respiration.

C. anaerobic respiration.

D. photosynthesis.

**Answer:**



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**3.** Inside the chest, the trachea divides into two branches called

A. bronchi.

B. bronchioles.

C. bronchus.

D. alveolus.

**Answer:**



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**4. During inspiration, the diaphragm**

A. moves up.

B. moves down.

C. remains at its position

D. moves up and down.

**Answer:**



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**5. Exhaled air contains**

A. more carbon dioxide.

B. more oxygen.

C. more nitrogen.

D. more hydrogen.

**Answer:**



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## Exercises Fill In The Blanks

1. The two types of respiration are \_\_\_\_\_ and

\_\_\_\_\_



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2. Muscle cells switch to \_\_\_\_\_ respiration in the absence of oxygen.



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3. In \_\_\_\_\_ respiration, food is completely oxidized into carbon dioxide, water and energy.



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4. Below the lungs is a muscular sheet called

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5. Bronchi divide into smaller tubes called

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**Exercises True Or False**



1. The oxidation of food to release energy and water is called breathing.



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2. Anaerobic respiration takes place in our bones when there is a shortage of oxygen.



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3. The microscopic air sacs present in the lungs are called alveoli.



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4. The movement of ribs and diaphragm plays an important role in the breathing process.



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5. Bronchitis is caused by a bacterium.



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## Exercises Differentiate Between

1. External respiration and Internal respiration



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2. Anaerobic respiration and Aerobic respiration



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3. Differentiate. tracheae and bronchi.



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4. Differentiate. Bronchi and alveoli.



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**Exercises Answer The Following In Short**

1. Define respiration.



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2. What is the full form of ATP?



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3. What is respiratory tract?



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4. What is the function of pleural fluid?



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5. What is the contribution of the following in breathing?

Diaphragm



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[Exercises Answer The Following In Detail](#)

1. How is the process of cellular respiration different from breathing?



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2. What is cellular respiration?



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3. In human, what happens to oxygen after it is inhaled through the nose?





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4. How and where is the blood enriched with oxygen in humans?



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5. With the help of labelled diagrams show the mechanism of beathing in humans.



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## Exercises

1. Given below are sets of five terms each. Rewrite the terms in correct order in a logical sequence beginning with the term that is underlined.

Nostrils, Pharynx, Alveoli, Larynx, Bronchioles



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**Exercises Look At The Picture Given Below And Sanwer The Following Question**

1. Name any one virus having RNA as their genetic material.



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**Check Your Progress Answer The Following In One Word**

1. Which organ is called the voice box?



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2. Name the two membranes covering the lungs.



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3. What is the muscular sheet below the lungs called?



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4. Where does exchange of gases takes place?



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5. What is formed when oxygen combines with haemoglobin?



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**Check Your Progress Answer These Question**

1. External respiration and Internal respiration



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2. Write the equation to show the process of respiration.



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3. In what form is the energy released during respiration stored?



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4. The two types of respiration are \_\_\_\_\_ and \_\_\_\_\_



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5. Why is less energy produced during anaerobic respiration than in aerobic respiration?



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1. Breathing through nose is healthier than breathing by mouth. Why?



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## Test Yourself I Multiple Choice Questions

1. Oxidation of food that takes place in the presence of oxygen is called

A. Excretion

B. Respiration

C. Digestion

D. Transpiration

**Answer:**



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2. The products of respiration are

A. Only carbon dioxide

B. Carbon dioxide and water



C. Carbon dioxide, water and energy

D. Energy and carbon dioxide

**Answer:**



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**3.** Name the layers through which the exchange of gases takes place in the lungs.

A. Respiration

B. Breathing

C. Combustion

D. Internal respirations

**Answer:**



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## Test Yourself II Fill In The Blanks

1. During respiration, when energy is released, \_\_\_\_\_ and \_\_\_\_\_ are also produced.



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2. Anaerobic respiration takes place in



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3. Name the process by which the sun's energy is trapped as the source of energy used by virtually all living organisms :



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## Test Yourself Iii Give One Word For The Following

1. Digestion of food involves breaking down of food components into smaller molecules by enzymes. These enzymes are active only at certain hydrogen ion concentration. As a result, certain food combinations can facilitate or retard the process of digestion. Of the following combinations, one that can result in very efficient digestion is



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2. The exchange of gases in the alveoli of the lungs takes place by



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3. An infection of main airways of the lungs (bronchi).



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**Test Yourself Iv Write True T Or False F In Front Of The Statements Given Below**

1. Delivering oxygen to cells and collecting carbon dioxide is called ..... respiration.



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2. Write a balanced equation to represent anaerobic respiration in plants.



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**Test Yourself V Define The Following**

1. Respiration is



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2. Explain mechanism of breathing with neat labelled diagram.



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3. For aerobic respiration to occur :



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#### 4. Anaerobic respiration



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**Test Yourself Vi Differentiate Between The Following**

1. What is the relation between aerobic cellular respiration, anaerobic cellular respiration and breathing?



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2. Differentiate between :

Respiration and Combustion



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3. Differentiate between Aerobic and anaerobic respiration



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## 4. Pharynx and Larynx



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**Test Yourself Vii Answer The Following Quesitons**

1. The products of respiration are



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2. Write in short about the process of respiration.



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3. What are the respiratory diseases? Give some examples.



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[Review Questions Multiple Choice Questions](#)

1. In humans, taking air through nostrils into the nasal cavity is called

A. Inhalation

B. Exhalation

C. Cellular respiration

D. Internal respiration

**Answer:**



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2. The front opening of the wind pipe is guarded by -

A. Glottis

B. Exoglottis

C. Epiglottis

D. Trachea

**Answer:**



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3. The process during which food is oxidised and energy is released is called

A. Cellular respiration

B. Excretion

C. Digestion

D. Transpiration

**Answer:**



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4. Why do our body cells require oxygen ?



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**Review Questions Short Answer Questions**

1. What is the difference between breathing and respiration ?



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2. Name the by-products formed during the oxidation of food.



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3. Name the agent which transports oxygen to all parts of the body.



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4. What is the role of epiglottis during swallowing ?



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5. Describe in brief the function of ribs and diaphragm in breathing.



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6. Name the gas which is expelled out during expiration. Where is it originally produced in our body?



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7. Name the following.

Respiratory process in which oxygen is not utilized



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**8.** Name the following.

Respiratory process in which oxygen is utilized



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**9.** Name the following.

The microscopic air-sacs of the lungs



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**10.** Name the following.

The two membranes which protect the lungs



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**Review Questions Long Answer Questions**

**1.** Why is a respiratory system necessary ?



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2. What factors are most likely to affect the breathing rate ?



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3. What happens to the energy liberated during respiration ?



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4. What do you understand by inhalation and exhalation ? How are they different from each other ?



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5. What do you understand by the term respiratory diseases ? Name any three common respiratory diseases.



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**6.** State the cause and treatment for the following diseases -

(i) Tuberculosis

(ii) Pneumonia

(iii) Bronchitis



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