



### BIOLOGY

## BOOKS - LAKHMIR SINGH & MANJIT KAUR

## **RESPIRATION IN ORGANISMS**



**1.** Name the process by which energy is released from the digestive food.

- A. Breathing
- **B.** Respiration
- C. Ingestion
- D. Excretion

#### **Answer: B**



**2.** Name the two gases which are exchanged during respiration.

- A. Oxygen
- B. Carbondioxide
- C. Nitrogen
- D. Both A and B

Answer: D

Watch Video Solution

3. State whether the following statements are

true or false :

Respiration is a type of combustion at

ordinary temperature.

A. True

B. False

C. Data insufficient

D. None of the above

Answer: B

4. State whether the following statements are

true or false :

Oxygen is released during the process of respiration.

Watch Video Solution

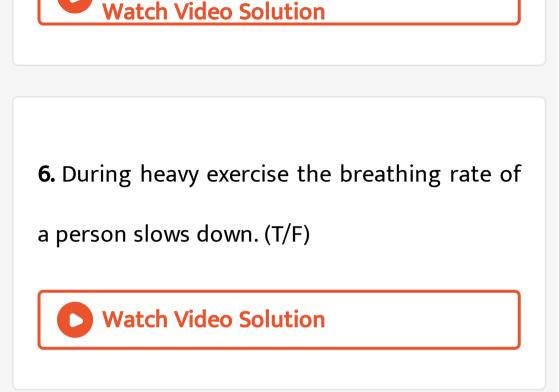
5. State whether the following statements are

true or false :

Energy can be released in the cells without

oxygen.





7. The size of the chest cavity increases during

inhalation. (T/F)

8. State whether the following statements are

true or false :

Frogs breathe through lungs as well as skin.

Watch Video Solution

9. State whether the following statements are

true or false :

Fish has lungs for breathing.

10. State whether the following statements are

true or false :

whales and dolphins live in water and breathe

through gills.

**Watch Video Solution** 

11. State whether the following statements are

true or false :

Insects breathe through spiracles and tracheae.



**12.** Name an animal in which exchange of gases during breathing takes place through its thin and moist skin. ?

A. Frog

B. Earthworm

C. Whale

D. Fish

#### Answer: B





# **13.** Name one animal which can breathe throught lungs as well as skin

A. Frog

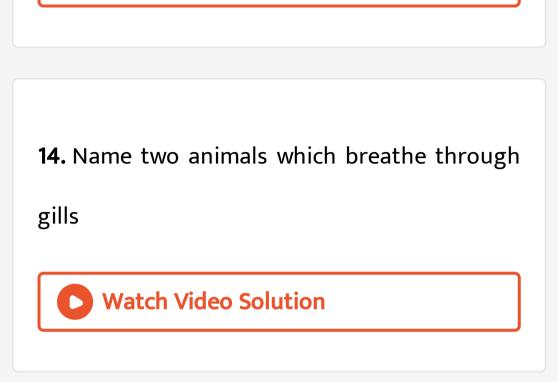
B. Earthworm

C. Whale

D. Cockroach

Answer: A





**15.** Name one animal which gets oxygen for breathing and respiration through tiny holes (spiracles) in its body which are connected to a network of thin air-tubes (tracheae).



16. Name one organism which can live without

oxygen.



#### 17. Name one anaerobe (anaerobic organisms).



18. What type of respiration usually takes place

in yeast ?

Watch Video Solution

**19.** Name the substance whose build up in the muscles during vigorous physical exercise may cause cramps.

**20.** Name the single-celled organism which is used to make wine and beer by the process of anaerobic respiration.



#### 21. What happens to your breathing rate when

you :

Exercise ?

22. What happens to your breathing rate when

you :

go to sleep?

Watch Video Solution

**23.** Name the skeletal structure aurrounding the chest cavity.

A. Rib cage

B. Spinal cord

C. Bones

D. Vertebral column

Answer: A

Watch Video Solution

**24.** Name the muscular floor of the chest cavity.

A. Rib cage

B. Lungs

C. Trachea

D. Diaphragm

Answer: D

Watch Video Solution

**25.** Which contains more carbon dioxide :

inhaled air or exhaled air ?

26. Which contains less oxygen : inhaled air or

exhaled air ?

Watch Video Solution

**27.** What are the percentages of oxygen and

carbon dioxide :

in inhaled air ?

28. What are the percentages of oxygen and

carbon dioxide :

in exhaled air ?



#### 29. Name the breathing organs in the human

body.

30. In the lungs :

(a) what substance is taken into the body?

(b) what substance is removed from the body

?

Watch Video Solution

31. In the lungs :

(a) what substance is taken into the body?

(b) what substance is removed from the body

- A. Oxygen, Carbondioxide
- B. Carbondioxide, Oxygen
- C. Nitrogen, Oxygen
- D. Hydrogen, Carbondioxide

Answer: A

Watch Video Solution

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

**33.** Where does the blood absorb oxygen in the human body ?

Watch Video Solution

**34.** Name the red pigment in blood which carries oxygen in the human body ?

35. Name the opening in our body through

which we inhale air.

Watch Video Solution

36. Name one bad habit which can cause lung

cancer.



37. Which group of animals have spiracles and

tracheae for breathing and respiration?

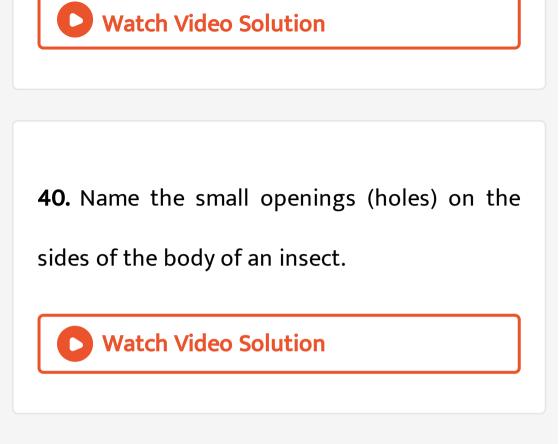


38. What is the average breathing rate of a

human adult at rest?



**39.** Name the air-tubes of insects.



**41.** Name the tiny pores on the surface of leaves of a plant through which gas exchange occurs.



**42.** Name any two parts of plant through which exchange of gases takes place during respiration.

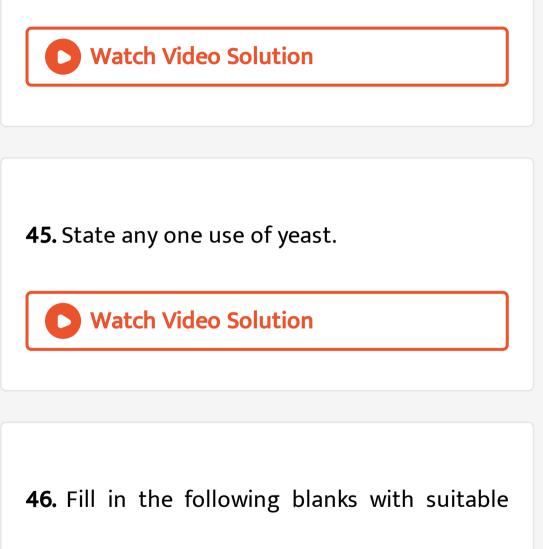


# **43.** Which of the two can respire

independently : plant parts or animal parts ?

44. From where do roots absorb air needed

for respiration ?



words:

The process of respiration is the reverse of



. . . . . . . . . . . . . . .

. . . . . . . . . .

**47.** Fill in the following blanks with suitable words:

Food can also be broken down without using

Anaerobic respiration in muscles occurs if

there is no ..... Available.

**Watch Video Solution** 

**49.** Fill in the following blanks with suitable words:

Anaerobic respiration by yeast converts

glucose into ..... which is used in making

wine or beer.

A. Lactic acid

B. Alcohol

C. Glycogen

D. None of these

Answer: B

Yeast is a ..... celled organism.



**51.** Fill in the following blanks with suitable words:

If a person is doing exercise, his breathing rate



. . . . . . . . . . .

Breathing involves the movement of .....

And the ..... Cage.

A. diaphragm, rib

B. rib, diaphragm

C. alveoli, rib

D. lungs, diaphragm

#### Answer: A





When we exercise, not only do we breathe

faster, we also take ...... Breaths.

Watch Video Solution

**54.** Fill in the following blanks with suitable words:

The taking in air rich in oxygen into the body

is called .....



**55.** Fill in the following blanks with suitable words:

The expelling of air rich in carbon dioxide from

the body is called .....

In human body, oxygen and carbon dioxide are

exchanged in the .....

**Watch Video Solution** 

**57.** Fill in the following blanks with suitable words:

In earthworm, exchange of gases occurs through the .....





In fishes, exchange of gases occur through

Watch Video Solution

**59.** Fill in the following blanks with suitable words:

In insects, exchange of gases occurs through

A. gills

. . . . . . . . . . . .

B. skin

C. trachea

D. lungs

Answer: C



**60.** Fill in the following blanks with suitable words:

Dolphins and whales breathe through .....

A. Blowholes

B. Gills

C. Trachea

D. Lungs

Answer: A

**61.** Fill in the following blanks with suitable words:

In plant cells, oxygen is used to break down

...... Into carbon dioxide and water, and release

Watch Video Solution

. . . . . . . . . . . .

**62.** What is meant by respiration? Write a word equation for it. What is the main

difference between aerobic respiration and

anaerobic respiration ?



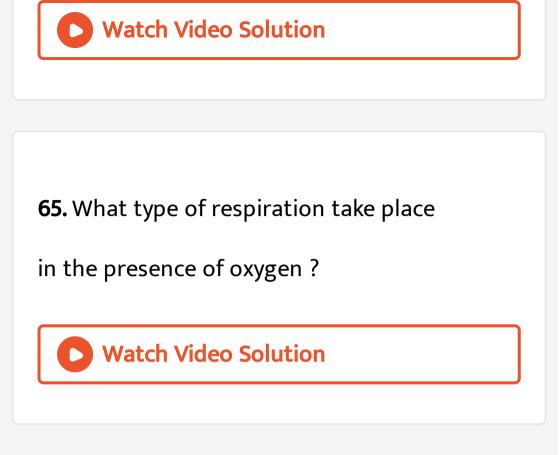
63. What are the two main parts in the process

of respiration ?

Watch Video Solution

64. What type of respiration take place

in the absence of oxygen ?



**66.** In which type of respiration, aerobic or anaerobic, more energy is released from the same amount of glucose (food) ? Why ?



**67.** List the similarities between aerobic respiration and anaerobic respiration.

**Watch Video Solution** 

## 68. List the differences between aerobic

respiration and anerobic respiration.

69. Why does running make a man breathe faster ?

 Watch Video Solution

**70.** Explain why, whenever a person needs extra energy, he breathes faster.

71. Why does an athlete breathe faster and deeper than usual after finishing the race?
Watch Video Solution

72. Why do we usually feel hungry after a

heavy physical exercise ?

**73.** What would happen if a potted plant is over-watered for a long time ? Give reason for your answer.



**74.** Which will turn lime water milky more appreciably : inhled air or exhaled air ? Why ?



75. Explain why ,exhaled air contains more carbon dioxide than inhaled air
Watch Video Solution

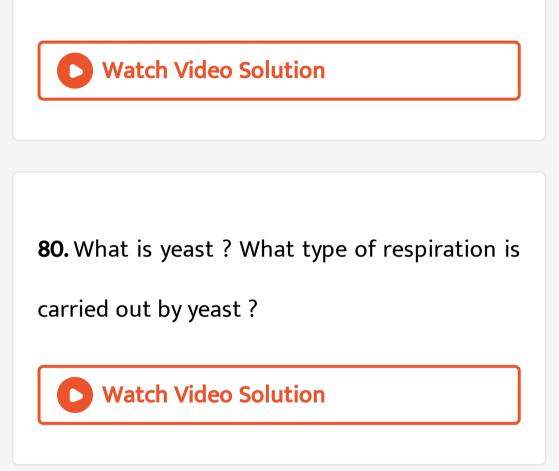
76. Explain why ,exhaled air containsless

oxygen than inhaled air

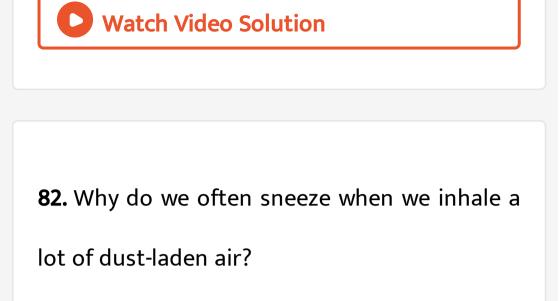
77. Explain why, exhaled air contains more water vapour than inhaled air
Watch Video Solution

**78.** Explain why, when we exhale air from our mouth on to a mirror, a patch of moisture is formed on the mirror surface?

**79.** Why do all the organisms respire ?



**81.** why do mountaineers carry oxygen gas cylinders with them ?



**Watch Video Solution** 

# **83.** State the harmful effects of smoking.



**84.** Define 'breathing rate'. How does the breathing rate in children differ from that in adults



## 85. Name the breathing organs in

fish



86. Name the breathing organs in

earthworm

Watch Video Solution

## 87. Name the breathing organs in

frog

88. Name the breathing organs in

insects

Watch Video Solution

**89.** Describe the process of breathing and respiration the following animals:

Earthworm

90. Describe the process of breathing and

respiration the following animals:

Frog



**91.** Describe the process of breathing and respiration the following animals:

Fish

92. Describe the process of breathing and

respiration the following animals:

insects



## 93. Descibe the process of respiration :

in the leaves of a plant.



94. Descibe the process of respiration :

In the roots of a plant.

Watch Video Solution

**95.** What is meant by aerobic respiration ? Explain by writing a word equation. Name one organism which normally uses aerobic respiration.



**96.** What type of respiration takes place in human muscles during heavy physical exercise?

Watch Video Solution

**97.** What is meant by respiration ? Write a word equation for it. What is the main difference beween aerobic respiration and anaerobic respiration ?



98. What type of respiration usually takes place in humans?
Watch Video Solution

99. What are the main organs of respiratory

system in humans?



100. Draw a labelled diagram of human respiratory system.Watch Video Solution

101. What is meant by 'breathing'? Describe

the mechanism of breathing in humans.

**102.** What causes 'yawning'? What are the various situations under which yawning occurs?



103. What happens to the breathing rate when

a person is tried, bored, feels sleepy or drowsy

? How does yawning improve the situation?



104. During heavy exercise, we get cramps in

the legs due to the accumulation of

A. carbon dioxide

B. lactic acid

C. alcohol

D. water

Answer: B

**105.** Normal range of breathing rate per minute in an average adult person at rest is

A. 44451

B. 15 - 18

C. 21 - 24

D. 30 - 33

**Answer: B** 

106. During inhalation, the diaphragm:

A. moves downwards

B. moves upwards

C. moves towards left

D. moves towards right

Answer: A



**107.** During exhalation, the rib cage:

A. moves upward and outwards

B. moves downward and inwards

C. moves from side to side

D. does not move at all

Answer: B

Watch Video Solution

**108.** In cockroaches, air enters the body through:

A. lungs

B. gills

C. spiracles

D. skin

Answer: C

Watch Video Solution

109. One of the following does not have gills

for breathing. This one is:

A. prawn

B. crab

C. whale

D. fish

Answer: C

Watch Video Solution

110. Which of the following is not a part of the

human respiratory system?

A. lungs

- B. oesophagus
- C. trachea
- D. diaphragm

#### Answer: B



**111.** One of the following is not produced during the anaerobic respiration in yest. This one is :

A. carbon dioxide

B. energy

C. lactic acid

D. alcohol

Answer: C

Watch Video Solution

112. As compared to inhaled air, the exhaled air

contains more of :

A. water vapour B. oxygen C.carbon dioxide D.

nitrogen

A. A and B

B. A and C

C. only c

D. B and C

Answer: B

113. Which of the following has haemoglobin-

containing blood ?

A. grass hopper

B. cockroach

C. goose

D. wasp

Answer: C

**114.** The energy of food which we eat is released slowly inisde our body by the process called :

A. transpiration

B. pollination

C. restrotation

D. respiraion

Answer: D

115. Which of the following is not a product of

aerobic respiration ?

A. carbon dioxide

B. alcohol

C. energy

D. water

Answer: B

**116.** yeast converts glucose into :

A. starch

B. alcohol

C. lactic acid

D. yogurt

Answer: B



**117.** Which of the following are not the products of anaerobic respiration in muscles ? A. CARBON DIOXIDE B. ENERGY C.ALCOHOL D. LACTIC ACID

A. A and B

B. B and C

C. A and C

D. B and D

## Answer: C





**118.** During respiration in humans, the

exchange of gases takes place in :

A. bronchi

B. alveolic

C. bronchioles

D. trachea

Answer: B

**119.** Which of the following does not have lungs for breathing ?

A. lizard

B. frog

C. fish

D. fox

Answer: C

120. one of the following organisms can live

without the oxygen of air. This organisms is:

A. amoeba

B. yak

C. yeast

D. leech

Answer: C

**121.** When air is blown from mouth into a test tube containing lime water, the lime water turned milky due to the presence of

A. oxygen

B. carbon dioxide

C. nitrogen

D. alcohol

Answer: B

122. Which of the following is most likely to

have a much higher breathing rate ?

A. man

B. dog

C. sparrow

D. fish

Answer: D

123. The animal which can breathe through the

lungs as well as through skin is :

A. fish

B. dolphin

C. frog

D. crocodile

Answer: C

**124.** In an experiment to demonstrate the mechanism of breathing by using a bell jar, two ballons in the bell jar and a rubber sheet tied to the open end of bell jar :

What does the space in the bell jar represent ?

Watch Video Solution

**125.** In an experiment to demonstrate the mechanism of breathing by using a bell jar, two ballons in the bell jar and a rubber sheet

tied to the open end of bell jar :

What do the ballons in the bell jar represent



**126.** In an experiment to demonstrate the mechanism of breathing by using a bell jar, two balloons in the bell jar and a rubber sheet tied to the open end of bell jar : What does the rubber sheet tied over the

open end of the bell jar represent ?



127. Name the type of respiration in which the

end products are :

alcohol and carbon dioxide

Watch Video Solution

128. Name the type of respiration in which the

end products are :

carbon dioxide and water



129. Name the type of respiration in which the

end products are :

lactic acid



**130.** There are three animals X, Y and Z . The animal X can stay in water as well as on land and can breathe through its moist skin as well as lungs. The animal Y always lives in water and had gills for breathing. On the other hand, animal Z lives in soil and breathes only

through its skin.

Which animal could be a fish ?

Watch Video Solution

**131.** There are three animals X, Y and Z . The animal X can stay in water as well as on land and can breathe through its moist skin as well as lungs. The animal Y always lives in water and had gills for breathing. On the other hand, animal Z lives in soil and breathes only through its skin.

Which animal could be an earthworm



**132.** There are three animals X, Y and Z . The animal X can stay in water as well as on land and can breathe through its moist skin as well as lungs. The animal Y always lives in water and had gills for breathing. On the other hand, animal Z lives in soil and breathes only

through its skin.

Which animal could be a frog



**133.** There are three animals X, Y and Z . The animal X can stay in water as well as on land and can breathe through its moist skin as well as lungs. The animal Y always lives in water and had gills for breathing. On the other hand, animal Z lives in soil and breathes only through its skin. name one animal which always lives in water

but has no gills for breathing



134. What are the products obtained In the

anaerobic respiration :

if it takes place in muscles ?



135. What are the products obtained In the

anaerobic respiration :

if it takes place in yeast ?



**136.** Consider the following animals :

Fish, Grasshopper, Cockroach, Earthworm,

Frog, Cow, Goat, Man, Lizard, Snake

Which of these animals :

breathes only through skin ?



**137.** Consider the following animals :

Fish, Grasshopper, Cockroach, Earthworm,

Frog, Cow, Goat, Man, Lizard, Snake

Which of these animals :

breathes through skin as well as lungs ?

Watch Video Solution

**138.** Consider the following animals :

Fish, Grasshopper, Cockroach, Earthworm,

Frog, Cow, Goat, Man, Lizard, Snake

Which of these animals :

breathe only through lungs ?

Watch Video Solution

**139.** Consider the following animals :

Fish, Grasshopper, Cockroach, Earthworm,

Frog, Cow, Goat, Man, Lizard, Snake

Which of these animals :

breathes through gills ?

**140.** Consider the following animals :

Fish, Grasshopper, Cockroach, Earthworm,

Frog, Cow, Goat, Man, Lizard, Snake

Which of these animals :

(a) breathes only through skin?

(b) breathes through skin as well as lungs?

(c) breathes only through lungs?

(d) breathe through spiracles and trachea?

(e) breathes through gills?

