



BIOLOGY

BOOKS - NCERT EXEMPLAR

RESPIRATION IN ORGANISMS

Multiple Choice Questions

1. Sometimes when we do heavy exercise, anaerobic respiration takes place in our

muscle cells. What is produced during this process?

A. alcohol and lactic acid

B. alcohol and CO_2

C. lactic acid and CO_2

D. lactic acid only

Answer: D



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2. Yeast is used in wine and beer industries because it respire

- A. aerobically producing oxygen
- B. aerobically producing alcohol
- C. anaerobically producing alcohol
- D. anaerobically producing CO_2

Answer: C



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3. During the process of exhalation, the ribs move

- A. down and inwards
- B. up and inwards
- C. down and outwards
- D. up and outward

Answer: A



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4. Breathing is a process that

(i) provides O_2 to the body

(ii) breaks down food to release energy

(iii) helps the body to get rid of CO_2

(iv) produces water in the cells.

Which of the following gives the correct combination of functions of breathing?

A. (i) and (ii)

B. (ii) and (iii)

C. (i) and (iii)

D. (ii) and (iv)

Answer: C



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5. Fish breathe with the help of gills which are richly supplied with blood vessels. The gills help the fish to

A. take in oxygen from air

B. take in oxygen dissolved in water

C. absorb nutrients present in water

D. release waste substances in water

Answer: B



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6. Earthworms and frogs breathe through their skin because of which the skin of both the organisms is

A. moist and rough

B. dry and rough

C. dry and slimy

D. moist and slimy

Answer: D



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Very Short Answer Questions True Or False

1. Mark the following statements as True or False. Correct the false statements

Oxygen breaks down glucose outside the cells of organisms.

A. True

B. False

C. May be

D. Depends on situation

Answer: B



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2. Mark the following statements as True or False. Correct the false statements

Frogs can breathe through their skin as well as lungs.



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3. Mark the following statements as True or False. Correct the false statements

Insects have spiracles on the lower surface of the body.

A. True

B. False

C. Maybe

D. Depends on animal

Answer: B



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4. Mark the following statements as True or False. Correct the false statements

Exhaled air has more percentage of CO_2 than inhaled air.

A. True

B. False

C. Maybe

D. Depends on situation

Answer: A



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5. Fill in the blanks with suitable words

The roots of a plant take up oxygen from the _____ trapped between the _____ particles.



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6. Fill in the blanks with suitable words

Diaphragm forms the _____ of the chest cavity.

A. Back

B. Floor

C. Both (a) and (b)

D. None of the above

Answer: B



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7. Fill in the blanks with suitable words

Exchange of gases in the leaves take place
with the help of _____



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8. Fill in the blanks with suitable words

Cockroaches breathe with the help of air tubes called _____



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Short Answer Questions

1. Pick the odd-one-out from each of the groups given below on the basis of respiratory

organs. Give reason for your answer

cockroach, grasshopper, snail, ant



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2. Pick the odd-one-out from each of the groups given below on the basis of respiratory organs. Give reason for your answer

lizard, cow, earthworm, snake



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3. Pick the odd-one-out from each of the groups given below on the basis of respiratory organs. Give reason for your answer

crocodile, whale, dolphin, fish



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4. Pick the odd-one-out from each of the groups given below on the basis of respiratory organs. Give reason for your answer

snake, tadpole, crow, goat





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5. Which gas present in air is essential for aerobic respiration? What is the role of oxygen during respiration?



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6. On an average, an adult human being at rest breathes 15-18 times per minute. The breathing rate, however, may differ under different conditions. Arrange the following

activities given in the box in order of increasing breathing rates and given reason for your answer.

sleeping, cycling, brisk walk, watching T.V



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7. On a very cold morning, Boojho and Paheli were talking with each other as they walked down to their school. They observed that the air coming out of their mouth looked like

smoke. They were amused and wondered how it happened. Help them find the answer.



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8. Whenever we feel drowsy or sleepy, we start yawning. Does yamning help us in anyway?



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9. Insects and leaves of a plant have pores through which they exchanges gases with the

atmosphere. Can you write two points of differences between these pores with respect to their position, number and extension into the body.



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Long Answer Questions

1. Paheli participated in a 400m race competition held at her school and won the race. When she came home she had mixed

feeling so joy and pain as she had cramps in her leg muscles. After a massage she was relieved of the pain. Answer the following questions related to the situation

What can be the possible reasons for the pain in her legs?



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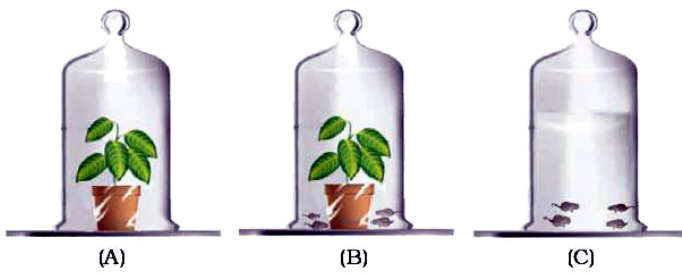
feeling so joy and pain as she had cramps in her leg muscles. After a massage she was relieved of the pain. Answer the following questions related to the situation

Why did she feel comfortable after a massage?



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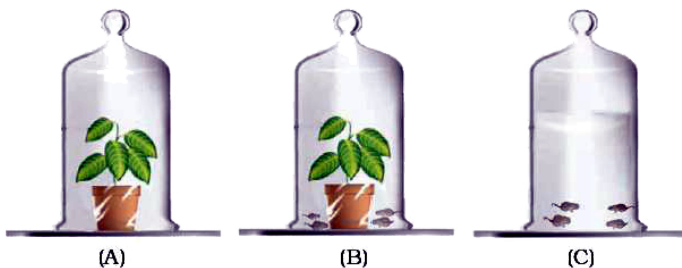
3. Observe Figure 10.1 carefully and answer the following questions.



In which jar, will the amount of CO_2 be the lowest and why?

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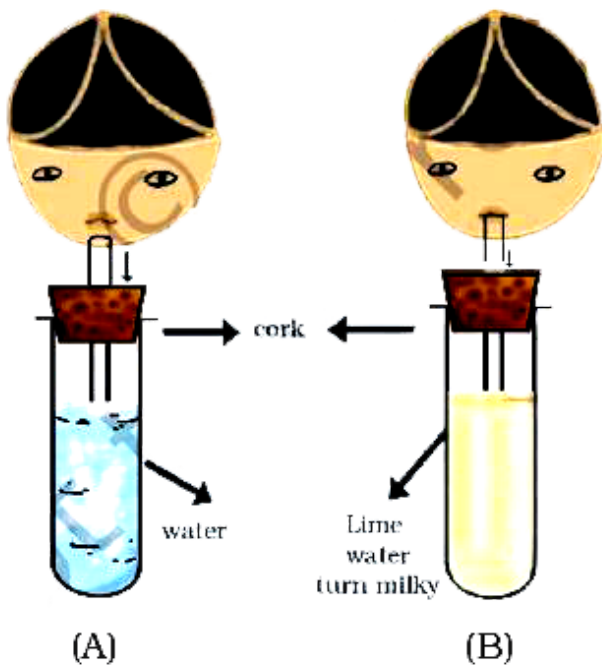


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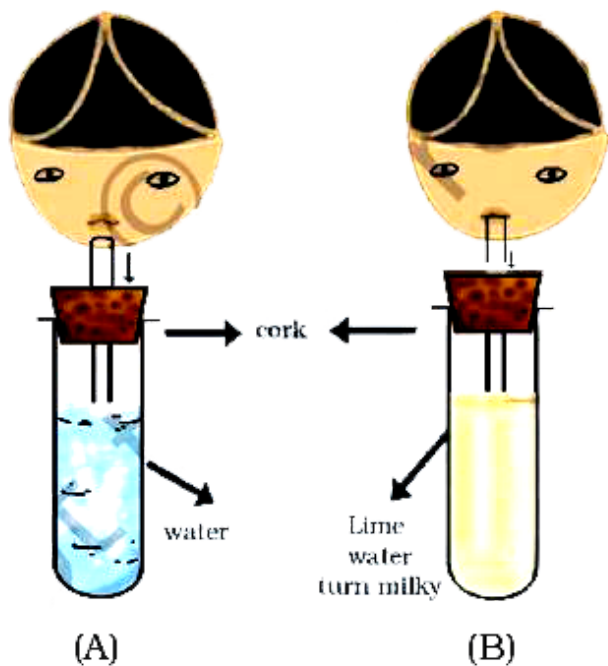
5. Observe Figure 10.2 carefully and answer the following questions



What is the result of the activity ? Give reasons.

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What is the result of the activity ? Give reasons.



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7. A food stall owner was preparing dough for making bhaturas. He added a pinch of yeast and sugar to the dough and left it in a warm place. After few hours, the dough had risen. There was a sour smell too.

Why did the dough rise?



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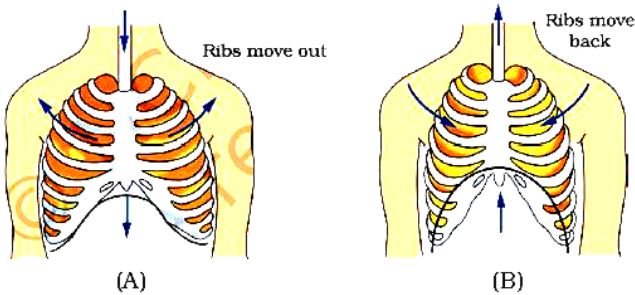
There was a sour smell too.

What would have happened if the dough was

kept in the refrigerator, soon after it was prepared?

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11. Observe the figures given as Figure 10.3 (A) and (B) and answer the following



Which of the figures A or B indicates the

process of inhalation and which the process of exhalation?



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12. Match the names of organisms in Column I with their organs of breathing given in Column II

Column I	Column II
(a) Butterfly	(i) lungs
(b) Earthworms	(ii) gills
(c) Sparrow	(iii) spiracles
(d) Fish	(iv) skin



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