

11/7/24

Respiration In Organisms

* Exercises

Q1 Why does an athlete breathe faster and deeper than usual after finishing the race?
→ Athletes need to supply extra energy to exercise and running. He breathes faster and deeper so that more oxygen is supplied to the cells.

Q2 List the similarities and difference between aerobic and anaerobic respiration?

→ Similarities :- The food is broken down to release energy.

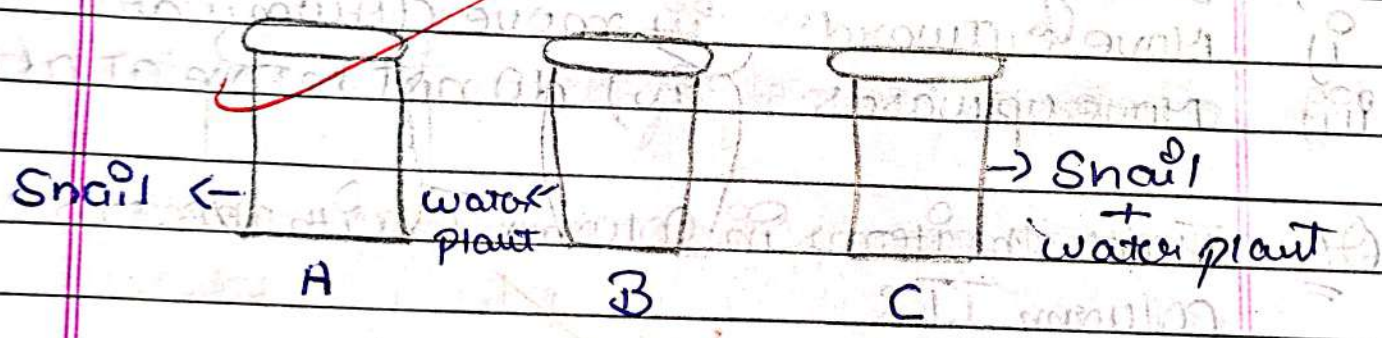
Differences	Anaerobic	Aerobic
1.	It does not require oxygen.	It requires oxygen.
2.	End products are C_2H_5OH alcohol or lactic acid.	End products are CO_2 and H_2O .
3.	It produces small amount of energy.	It produces large amount of energy.

Q3 Why do we often sneeze when we inhale a lot of dust-laden air?

→ Sneezing expels the foreign particles from the inhaled air. So, only clean air enters our body. Smoke, dust pollen etc. Are some unwanted particles that may cause sneezing.

Q4 Take three test-tubes. Fill $\frac{3}{4}$ th of each with water.

→ of CO₂? the highest concentration



→ Test tube A will have the highest concentration of carbon dioxide because snail breathes in oxygen and breathes out carbon dioxide.

Q5 Tick the correct answer:

- Q) In cockroaches, air enters the body through
- i) lungs
 - ii) gills
 - iii) spiracles
 - iv) skin
- ✓

b) During heavy exercise, we get cramps in the legs due to the accumulation of

i) Carbon dioxide ii) Lactic acid
 iii) alcohol iv) water

c) Normal range of breathing rate per minute in an average adult person at rest is?

i) 9-12 ii) 15-18
 iii) 21-24 iv) 30-33

d) During exhalation, the ribs

i) Move outwards ii) move downwards
 iii) Move upwards iv) do not move at all

Q6 Match the items in Column I with those in Column II:

- | | | |
|--------------|---|---------------------|
| a) Yeast | — | (iii) Alcohol |
| b) Diaphragm | — | (iv) Chest cavity |
| c) Skin | — | (i) Earthworm |
| d) Leaves | — | (v) Stomata |
| e) Fish | — | (ii) gills |
| f) Frog | — | (vi) Lungs and skin |

Q7 Mark 'T' if the statement is true and 'F' if it is false.

i) During heavy exercise the breathing rate of a person slows down. False

ii) Plants carry out photosynthesis only during the day and respiration only at night. False.

iii) Frogs breathe through their skin as well as their lungs. True.

iv) The fishes have lungs for respiration. False

v) The size of the chest cavity increases during the inhalation. True.

Q9 The mountaineers carry oxygen with them because:
 → (b) → The amount of air available to a person is less than that available on the ground.

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