CLASS - 7th
Subject - science
Chapter - 10th

(Respiration in organisms)

(NOTE - book)

1) Why does an athlete breathe faster and deeper than usual after finishing the race.

Ans → During the run, the demand of energy is high but the supply of oxygen to produce energy is limited. Therefore, anaerobic respiration takes place in the muscle cells to fulfil the demand of energy. After finishing the race, An Athlete breathe faster and deeper than usual so that More oxygen is supplied to the cells.

2) List the similarities and differences between aerobic and anerobic respiration.

Ans → Similarities :-

1) In both aerobic and anaerobic respiration, food is broken down to release energy.
2) Both takes place inside the cells.
3) Both produce byproduct.

Difference

Aerobic Respiration	Anaerobic Respiration
1) It takes place in the presence of oxygen	1) In takes place in the absence of oxygen.
2) Energy is released ~~is~~ higher amount.	2) Energy is released in ~~high~~ Lesser amount.
3) It is a slow process.	3) It is a fast process.
4) Ex. —: Animal and plant cell.	4) Example :- Human cell, yeast, Bacteria etc.

3) Why do we often seenze when we inhale a lot of dust - laden air.

Ans → when we inhale dust - laden air, dust irritates nose ; As reflexive action, dust it thro- -wn out through sneezing.

4) Take, three test - tubes. Fill $3/4^{th}$ of each with water. Label them A, B and C. Keep a snail in test - tube A, a water plant in test tube B and in C. Keep snail and plant both. - which test - tube ~~hi~~ would have the highest concent- -ration of CO_2.

Ans → Test tube A will have the highest concentr-ation of CO_2 because test-tube A will have snail which expels out CO_2 into the tube. In tube C there is a plant which will inhale CO_2 to decrease CO_2 concentration in the tube C.

5) Tick the correct answer:- (Book-activity)

a) In cockroaches, air enters the body through.

Ans →(Spiracles)

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

Ans → (Lactic acid)

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

Ans →(15-18)

d) During exhalation the ribs

Ans → (Move downwards)

6) Match the items in column I with those in column II:

Ans →

(Column I)	(Column II)
a) Yeast	a) Alcohol
b) Diaphragm	b) Chest cavity
c) Skin	c) Earthworm
d) Leaves	d) Stomata
e) Fish	e) Gills
f) Frog	f) Lungs and skin

7) Make (T) if the statement in true and 'F' if it is false:

1) During heavy exercise the breathing rate of a person slow down. (False)

2) plants carry out photosynthesis only during the day and respiration only at night. (False)

3) Frogs breathe through their skin as well as their lungs. (True)

4) The fishes have lungs for respiration. (False)

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

Q. 8)

i) The air tubes of insects.

Ans → (Trachea)

ii) Skeletal structure surrounding chest cavity.

Ans → (Ribs)

iii) Muscular floor of chest cavity.

Ans → (Diaphragm)

iv) Tiny pores on the surface of leaf.

Ans → (Stomata)

v) Small openings on the sides of the body of an insects.

Ans → (Spiracles)

vi) The respiratory organ of human being.

Ans → (Lungs)

vii) The openings through which we inhale.

Ans → (Nostrils)

viii) An anaerobic organism.

Ans → yeast.

ix) An organism with trachel system.

Ans → (Ant)

9) The mountaineers carry oxygen with them because:

Ans → (b) The amount of air available to a person is less than that available on the ground.

(Note-book)

Extra-question

1) what is respiration.

Ans → The process of breakdown of food in the presence of oxygen to release energy in the form of ATP, is called respiration.

2) Give the types of respiration.

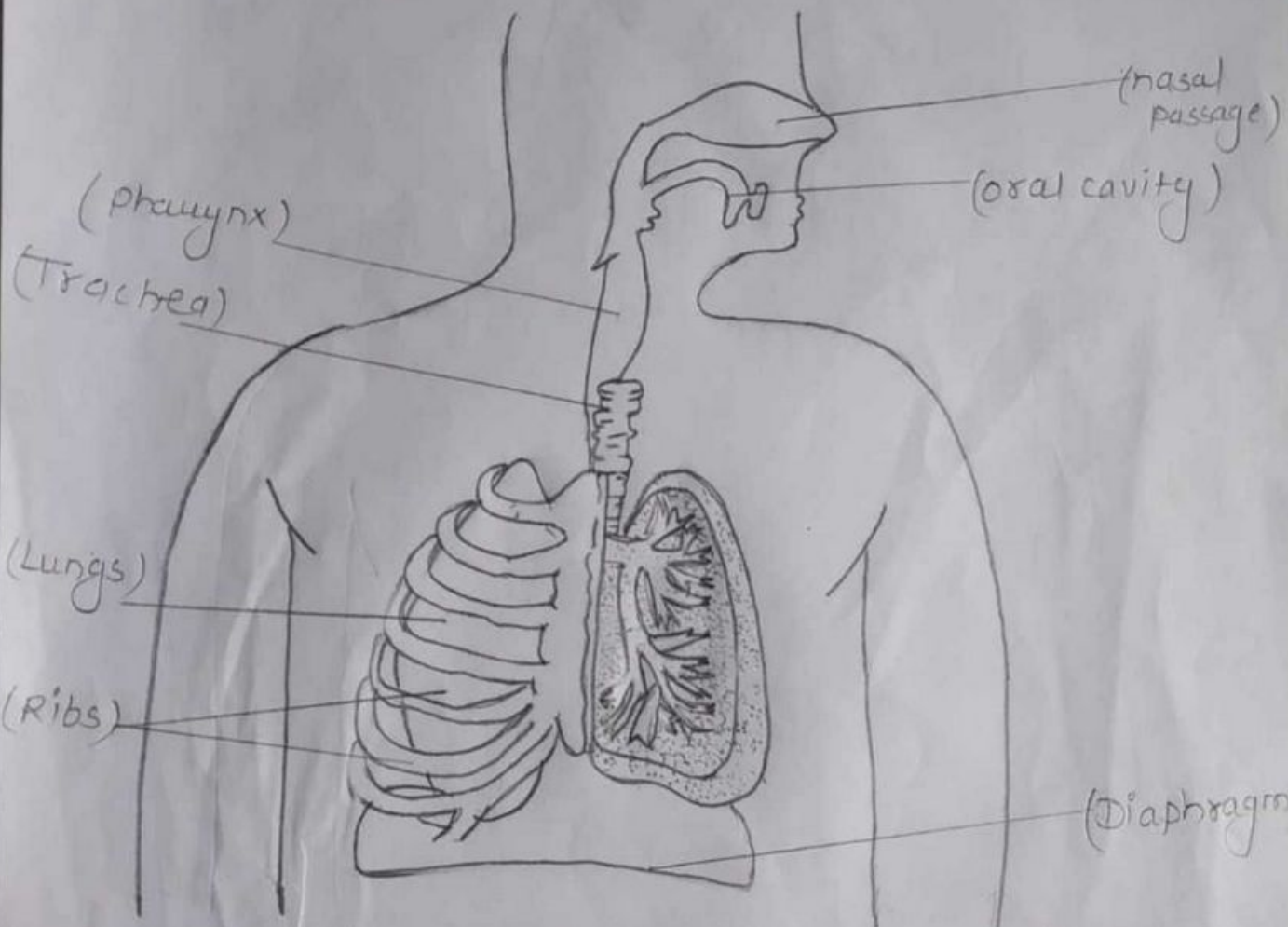
Ans → There are basically two types of respiration.

a) Aerobic respiration

b) Anaerobic respiration

(7)

3) Draw a labelled digram of Human respiratory system.



(HUMAN respiratory system)