

## I Technical terms:

### 1. Respiration:

The process of taking oxygen into the cells, using it for producing energy and removing the gaseous waste products. (Carbon dioxide and water vapour).

### 2. Spiracles:

Small openings on the sides of bodies of insects through which exchange of gases takes place.

### 3. Alevoli:

Small air sacs present at the end of bronchioles.

## II Multiple choice question

1. The outer surface of the roots has a thin layer of cells called epiblema.

a) lenticles b) epiblema c) stomata d) epidemis

## III Answer the following

1. How do the pores found in plants differ from the pores found in some insects.

Ans i) Spiracles are present on the sides of the insects body while stomata are present on the lower surface of leaves.

ii) Spiracles are fewer in number as compared to stomata.

iii) Spiracles lead to an extensive network of the tracheal system which is absent in leaves.

IV Give reason:

1. Why do we feel hungry after running or heavy exercise?

Ans A heavy running leads to increase in breathing rate because exercise requires more energy. So one needs more oxygen to process it. This leads to increase in breathing rate.

V Long Answer question:

1. Differentiate between the respiration in plants and respiration in animals with respect to respiratory organs and amount of energy released.

Ans	Respiration in plants	Respiration in animals
	i) Plants do not breathe, they only respire through their leaves.	i) Animals breathe air for cellular respiration.
	ii) Plant obtain oxygen directly from the air through stomata.	ii) Animals inhale oxygen from nose or gills into their respective respiratory organs.



iii) Carbon dioxide released during respiration is utilized by plants for photosynthesis process.

iii) Carbon dioxide released during respiration is not utilized by animals, it is released outside the body.

iv) Respiratory organs in plants are stomata in leaves, lenticles and the surface of roots.

iv) Respiratory organs in animals are generally the lungs and gills.

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v) The rate of respiration is slow

v) The rate of respiration is fast