

Biology homework

Date - 2-10-2021

Rw - ch 1, 2, 3, 4

Question 1

1. Who coined the term 'cell'?

Ans = Robert Hooke

2. Which of the following connects the pharynx to the stomach?

Ans: Esophagus

3. Transpiration is a function of the
Ans - leaves, stems and flowers

4. Which of the following is not good for eyes?

Ans. Looking at the sun directly

5. Oxygen and carbon dioxide are
exchanged at

Ans - Alveoli

6. Which of the following refers to the

initial u-shaped part of the small intestine
Ans = duodenum

7. Vacuole is a watery sac bounded by a membrane termed as:
Ans - Tonoplast

8. The outermost part of a rose flower is
is

Ans = ~~For~~ Sepals

9. Which of the following is the main source of energy?

Ans = Carbohydrates

10. Which of these connects the leaf to the stem?

Ans = Petiole

11. What is the shape of the trees found on the mountains?

Ans = Cone

12. The corolla is made up of units called

Ans: Petals

13. In plant cells, which of the following organelle has small units called dictyosomes?

Ans: Golgi apparatus

14. During photosynthesis plants give out

Ans: Carbon dioxide

Q2

A. 1. The organelle which digests old or injured parts of its own cells. lysosome

2. A thin, sticky film composed of mucous, food particles and bacteria, which develops on the surface of the teeth over a period of time.

Ans. Plaque

3. The pattern of arrangement of veins on a leaf. Venation

4. The surface of a tooth. Enamel

5. Tiny openings found on the lower side of the leaf for the exchange of gases. Stomata

B. Fill in the blanks.

1. The enzyme maltase converts maltose into glucose.

2. Fertilisation results in the growth and transformation of the ovary into fruit.

3. Centrosome consists of one or two rod-like bodies called centrioles.

4. One complete sequence of part contraction and relaxation is called cardiac muscles.

Question 3

A. Match the following.

1. Chloroplast - Manufactures food in plants

2. Cell membrane - Entry and exit of materials

3. Ribosome - Synthesis of proteins

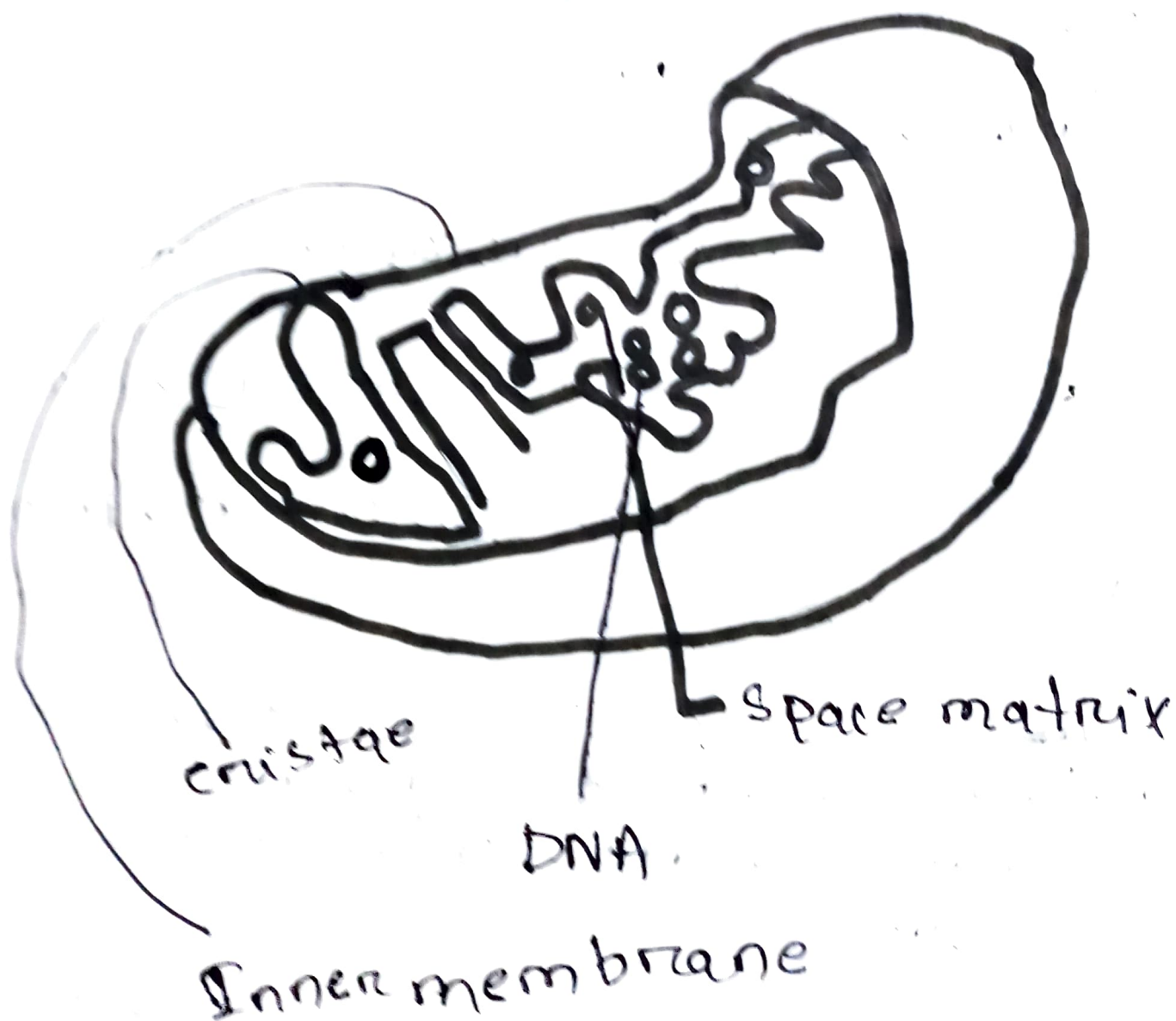
4. Amylase - Converts starch into maltose

5. Enpsin - Converts peptones into Amino-acids

B. With the help of a suitable diagram explain the structure and function of the Mitochondria and the endoplasmic reticulum.

Ans: Mitochondria's primary function is to produce energy through the process of oxidative phosphorylation. Besides this, it is responsible for regulating the metabolic activity of the cell.

also promotes cell multiplication and cell growth. Mitochondria also detoxify ammonia in the liver cells.

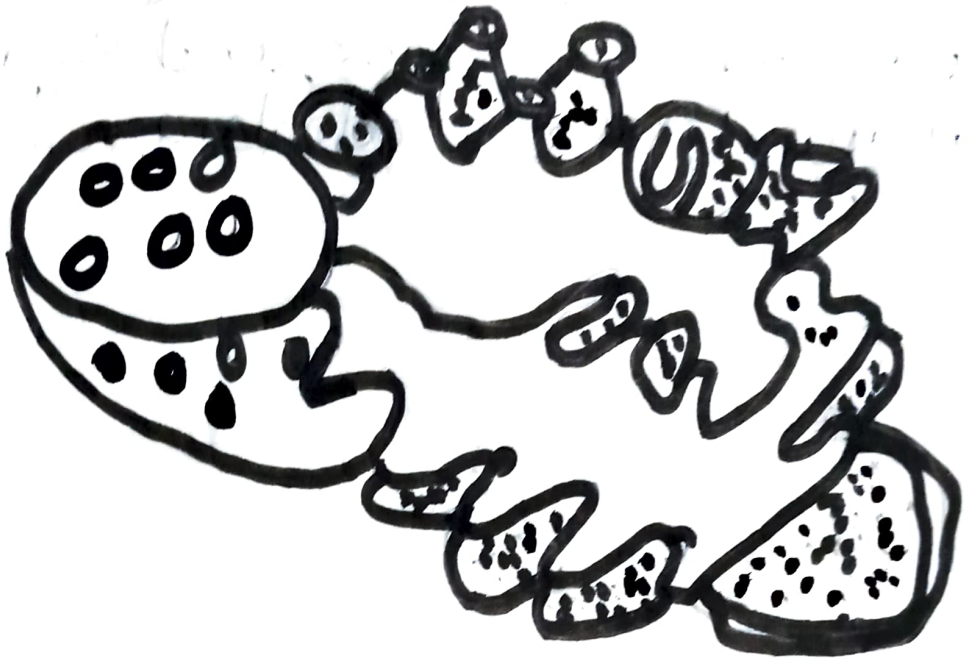


d cell

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The endoplasmic reticulum is a large organelle composed of membranous sheets and tubules that start near the nucleus and stretch throughout the cell. The endoplasmic reticulum produces packages and secretes many of the products a cell creates.

Endoplasmic reticulum



Question 4

Label the parts in the given diagram.

1. esophagus
2. Gall bladder
3. Stomach
4. Pancreas
5. Small intestine

Question 5

1. How is cactus adapted to survive in desert.

Ans - Cactus have long roots that go deep inside the soil for absorbing water.

- Its leaves are in the form of spines to prevent water loss through transpiration.

- Its stem is covered with a thick waxy layer to retain water.

Q. B. Find the odd one out.

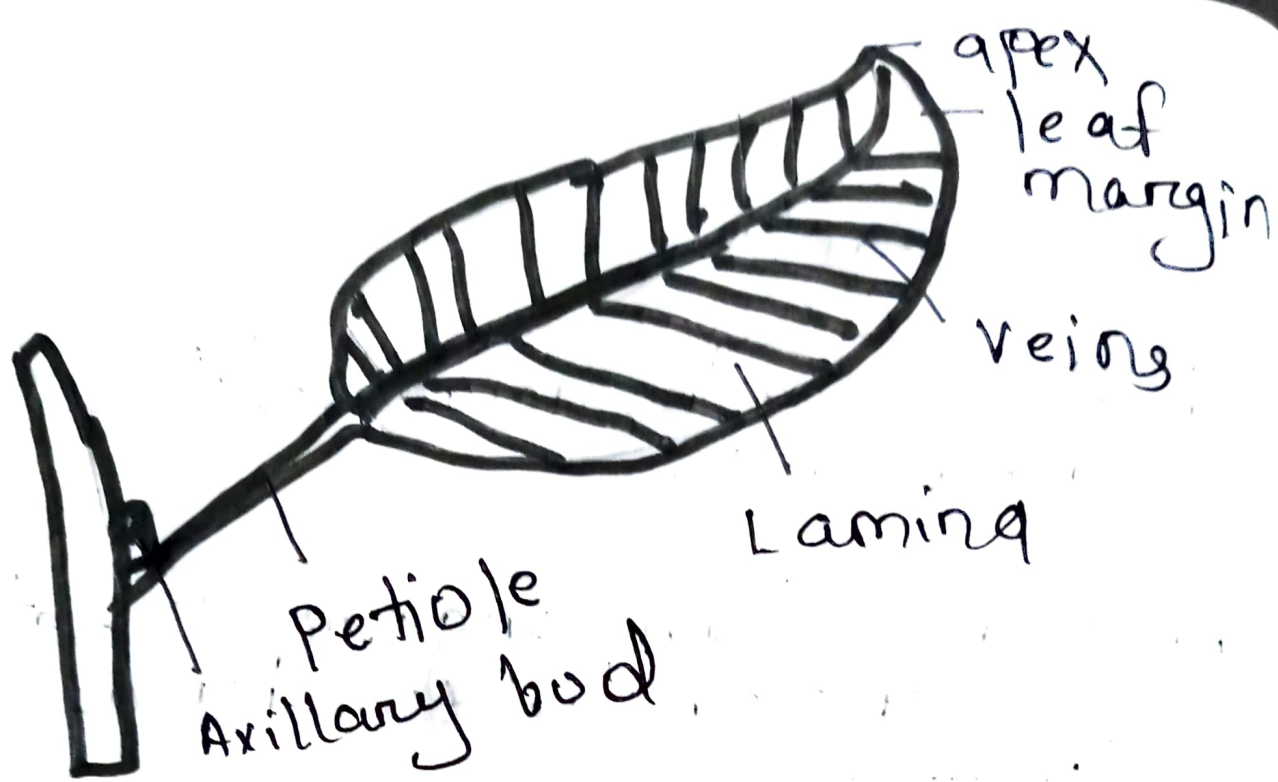
1. Rose, Neem, Acacia, mango

2. Cell wall, Mitochondria, Cytoplasm, cell membrane

3.

Question 6

A. Describe the structure and functions of leaves



Petiole: It is the basal part of a leaf is a stalk called petiole. It is attached to the stem at the node.

Lamina: The green flat and broad part of the leaf is called 'lamina' or 'leaf blade'. Its outer edge is called "leaf margin".

Midrib: Petiole continues into the lamina as the 'midrib'.

Veins: Veins provide a skeleton or a supportive framework to the leaves.

Leaf apex: The tip of the leaf is called apex.

Define the following terms.

Egestion. The process of eliminating the undigested food through the anus is called egestion.

Breathing. Breathing is the process in which we take in air through the nostrils into the nasal cavity and forcing ~~the~~ out the air from the lungs.

Internodes. The part of the stem between two successive nodes is called an internode.

Plaque. When the sugary or starchy foods that we eat get stuck to the teeth, along with bacteria something yellow coloured film is also present on the teeth surface which is called plaque.

5. Bisexual flower. The flowers which have both female and male reproductive flowers are called bisexual flower.

Question 7

A. 1. Explain the modifications in the leaf.

Ans - Leaf tendrils - In case of certain weak stemmed plants, leaves or leaflets are modified into wiry, coiled structures called tendrils. They are sensitive to touch. When they touch an object they coil around it. Ex - Sweet pea

Q Spines: Leaves are modified into spines to reduce water loss like cactus. In prickly poppy, leaves bear spines on the margin.

Scale leaves. In some plants like onion and ginger, thick and fleshy or thin and dry scale leaves are present respectively. Their function is to store food and protect the buds.

B. 1. State the importance of transpiration.

Ans: Transpiration helps in the conduction of water and minerals to different parts of the plants. Due to the continuous elimination of water from the plant body, there is a balance of water maintained within the plant. It maintains osmosis and keeps the cell rigid.