

Biology (New Book) - 9th Class Biology Urdu Medium Chapter 3 Preparation

Q1. What do mesophyll cells do in plant leaves.

- Ans 1:**
- i. They are specialized for photosynthesis
 - ii. They contain large number of chloroplasts, which contain the green pigment chlorophyll necessary for capturing light energy
 - iii. Their shape and arrangement in leaves is suitable for maximum absorption of light

Q2. Why are the cristae important for cellular respiration.

- Ans 1:** Cristae are important for cellular respiration because they increase the surface area of the inner mitochondrial membrane which allows the cell to produce more energy.

Q3. What could happen if lysosomal enzymes stop working properly.

- Ans 1:** If lysosomal enzymes stop working properly, they do not digest food and cells accumulate waste and eventually die.

Q4. What are Golgi apparatus?

- Ans 1:** It was discovered by Italian scientist Camillo Golgi in 1898. Golgi apparatus is also known as Golgi complex. It modifies the materials coming from rough ER and encloses them into Golgi vesicles.

Q5. Which organelle detoxifies harmful substances and breaks down lipids?

- Ans 1:**
- i. Smooth endoplasmic reticulum involved in lipid metabolism
 - ii. It also detoxifies the harmful chemicals that have entered the cells.

Q6. What are the main functions of cell membrane.

- Ans 1:**
- i. It is selectively permeable
 - ii. It allows very few molecules to pass through it while blocking many other molecules.

Q7. How do the vacuoles in plant cells differ from vacuoles in animal cells?

- Ans 1:** Vacuoles in an Animal cell:
- i. Animal cell may have many small temporary vacuoles
 - ii. They contain water and food substances
 - iii. Some freshwater organisms like amoeba and sponges have contractile vacuoles which collect and pump out extra water and other wastes
 - iv. Some cells ingest food by forming food vacuoles. Food vacuoles also store food.

Ans 2: Vacuole in a plant Cell:

- i. Most nature plant cells have a single large, central vacuole
- ii. It is formed by the fusion of many small vacuoles
- iii. The membrane of plant vacuole is called tonoplast and the sap inside plant vacuole is called cell sap
- iv. It is watery solution of salts.

Q8. What is chloroplast?

Ans 1: Chloroplast is a type of a plastid bound by a double membrane. It is found in plant cells, Chloroplasts are the sites of photosynthesis in eukaryotes. They contain chlorophyll, the green pigment necessary for photosynthesis.

Q9. Which type of cell is responsible for sending nerve signals.

Ans 1: Neurons are the specialized cells of nervous system which are responsible for sending nerve signals throughout the body.

Q10. Difference between Animal cell and Plant Cell

Ans 1: Animal Cell:

1. Mitochondria
2. Cell membrane
3. Cytoskeleton
4. Smooth endoplasmic reticulum
5. Lysosome
6. Golgi apparatus
7. Vacuole

Ans 2: Plant Cell:

1. Golgi apparatus
 2. Nucleus
 3. Rough endoplasmic reticulum
 4. Vacuole
 5. Mitochondria
 6. Cytoskeleton
 7. Chloroplast
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