Biology (New Book) - 9th Class Biology Urdu Medium Chapter 5 Preparation

Q1. Define Cell

Ans 1: When organelles assemble and interract with each other, they make cell-the smallest unti with characteristics of life. They can carry out life activities and can also reproduce.
Example: Unicellular organismsm are made of only one cell while multicellular organisms are made of many cells.

Q2. What is the function of the palisade mesophyll in the leaf.

Ans 1: Palisade mesophyll in a leaf is responsibel for photosynthesis. It consists of tightly packed elongated cells with large number of chloroplasts to absorb light and produce food for plants.

Q3. Difference between Epidermal and mesophyll tissue.

Ans 1: Epidermal Tissue:
The outermost layer of leaf is made of epidermal tissue
The upper epidermis is usually covered by waxy cuticle which reduce water loss and provides protection
The lower epidermis oftern contains guard cels.Two guard cells enclose a Stoma whcih are tiny pores that regulate gas exchagne and water vapour loss.

Ans 2: Mesphyll tissue:
This tissue lies between the upper and lower epidermis
It consists of cells rich in chloroplasts
It is the site of photosynthesis it is divided into two distinct regions palisade mesophyll and spongy mesophyll

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Q4. Palisade and spongy mesophyll

Ans 1: Palisade Mesophyll:
It is located just beneath the upper epidermis
It consists oftighty packed elongated cells.
Their cells are rich with chloroplasts and has major role in photosynthesis

Ans 2: Spongy Mesophyll:
It is presnet below the palisade mesophyll
It is composed of loosely arranged cells with air spaces between them.
These air spaces facukutate tge duffysuib if gases throughout the leaf.

Q5. A cell works as an open system. Comment on it.

Ans 1: A cell works as a open system i.e. it takes in substance needed for its metabolic activities through its cell membrane. It takes up food. oxygen , water and salts for survival, growth and division, and eneryg for metabolic process. Products and by - products ar eformed in metabolism cell either utilizes the products or transport them to other cells. The by products are either stored or are excreted out of cell.

Q6. Define Atom

Ans 1: Atoms are teh smallest unit of matter that maintain the property of an element.
Example: Carbon, Hydrogen and Oxygen etc.

Q7. How do the smooth muscles contribute to the stomach's functin.

Ans 1: The smooth muscle in the stomach is primarity responsible for.
1. Churnign and mixing food with stomach acid
ii. Producing chyme by contracting and relexing in a coordinated manner which helps with digestion and peropels the partially digested food into the small intestine through a process called peristalsis.
iii. It facilitates the movement and mechanical breakdown of food within the stomach.

Q8. Define Molecule

Ans 1: Atom combine to form moleculs which cna have entirely different properti thant he atoms they contain.
Example:
Water, protein and nucleic acid etc.

Q9. What is a tissue level?

Ans 1: Introduction:
In multicellular organisms, cells make tissues. A tissue is a group of similar cells that work together to perform one or more specific functions.
Example:
In animals:
Epithelial tissue- covers body surfaces and lines cavities e.g. skin
Muscle tissue-enables movement e.g. cardiac muscle in the heart.
In Plant:
Epidermal tissue-Protects the underlying parts e.g. epidermis of leaf
Vascular tissue-Transports water and nutrients e.g. xylem and phloem.

Q10. What is tissue level? Give one example.

Ans 1: A group of similar or differente types of cells peforming same function e.g. xylem and phloem in plants, ar ecomposed of different cells while nerous tissues are composed of same type of cells.