BRAIN INTERNATIONAL SCHOOL

SESSION 2024-25

CLASS: IX **TERM 1 REVISION SHEET** **SUBJECT: BIOLOGY**

Chapter 1: The Fundamental Unit Of Life.

1. **Multiple choice questions:**
   i. Colourless plastids are known as :
   (a) Chromoplasts (b) chloroplasts (c) leucoplasts (d)protoplast
   ii. Which of the following are examples of prokaryotes?
   (a) Bacteria (b)Fungi (c) Algae (d) Protozoa

2. **Assertion-Reason question:**

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

(i) Both A and R are true and R is correct explanation of the assertion.

(ii) Both A and R are true but R is not the correct explanation of the assertion.

(iii) A is true but R is false.

(iv) A is false but R is true.

(a) **Assertion**: When the cell gets damaged, lysosomes may burst and the enzymes digest their own cell.

Reason: Therefore, lysosomes are also known as the 'suicide bags' of a cell.

3. **Read the passage and answer the questions that follow:**

The fundamental organisational unit of life is the cell. Cells are enclosed by a plasma membrane composed of lipids and proteins. The cell membrane is an active part of the cell. It regulates the movement of materials between the ordered interior of the cell and the outer environment. In plant cells, a cell wall composed mainly of cellulose is located outside the cell membrane. The presence of the cell wall enables the cells of plants fungi and bacteria to exist in hypotonic media without bursting. The nucleus in eukaryotes is separated from the cytoplasm by double-layered membrane and it directs the life processes of the cell. Prokaryotic cells have no membrane-bound organelles, their chromosomes are composed of only nucleic acid, and they have only very small ribosomes as organelles. Cells in organisms divide for growth of body, for replacing dead cells, and for forming gametes for reproduction.

1. If the organisation of a cell is destroyed due to some physical or chemical influence, what will happen?
2. Where are proteins synthesised inside the cell?
3. Write two functions of cell wall .

4.Answer the following questions :

1. Draw the structure of a plant Cell and label it.
2. What is the main function of Leucoplasts?
3. If a cell is kept in hypertonic or hypotonic solution ,does water move only in one direction or both? Clarify.

Chapter 2: Tissues

1. **Multiple choice questions:**

   i. The flexibility in plants is due to a tissue called :
   (a) chlorenchyma (b) parenchyma (c) sclerenchyma (d) collenchyma

   ii. Sieve tubes and companion cells are present in

   (a) xylem (b) phloem (c) cork (d) cambium

2. **Assertion-Reason question:**

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

(i) Both A and R are true and R is correct explanation of the assertion.

(ii) Both A and R are true but R is not the correct explanation of the assertion.

(iii) A is true but R is false.

(iv) A is false but R is true.

(a) **Assertion**: The rigidity in leaf is due to sclerenchyma.

Reason: sclerenchyma are dead tissue and provide mechanical strength.

3. **Read the passage and answer the questions that follow:**

A few layers of cells beneath the epidermis are generally simple permanent tissue. Parenchyma is the most common simple permanent tissue. It consists of relatively unspecialized cells with thin cell walls. They are living cells. Collenchyma allows bending of various parts of the plant-like tendrils and stems of climbers without breaking. Sclerenchyma tissue makes the plant hard and stiff. We have seen the husk of a coconut. It is made of sclerenchymatous tissue. They are long and narrow as the walls are thickened due to lignin. The tissue is present in stems, around vascular bundles, in the veins of leaves and in the hard covering of seeds and nuts.

1. Mention the role of parenchyma , collenchyma and sclerenchyma .
2. Define differentiation .
3. Name the plant tissue which is found in the husk of a coconut. Identify the chemical which is responsible for its stiffness .

4. **Answer the following questions:**

   1. Give reasons for :
      (i) Meristematic cells have a prominent nucleus and dense cytoplasm but they lack vacuole.
      (ii) We get a crunchy and granular feeling when we chew pear fruit .
      (iii) It is difficult to pull out the husk of a coconut tree.
   2. List three characteristics of cork. How are they formed ? Mention their role .
   3. Which plant tissue provides buoyancy to aquatic plants? How ?