

Lesson-Tissue (Assignment)

Q1- Name the tissue responsible for growth in plants.

A- Meristematic tissue

Q2- Name three types of simple permanent tissue.

A- Parenchyma, collenchyma and sclerenchyma.

Q3- What chemical substance is present in the walls of sclerenchyma?

A- Lignin

Q4- What is tissue?

A- A tissue is a group of cells having a common origin and specialised for a particular function.

Q5- Where do you find meristematic tissue in plants?

A- In apical, intercalary and lateral position in plants.

Q6- What is the main function of parenchyma?

A- Main function of parenchyma is to store food and provide turgidity in the organ.

Q7- What is the chief function of collenchyma?

A- It provides mechanical strength as well as flexibility to soft part of plant.

Q8- What are different types of parenchyma? Write their special features?

A- Chlorophyll containing parenchyma called chlorenchyma.

They perform photosynthesis.

Aerenchyma provide buoyancy to the plants to help them float in water

Q9- Write three differences between plant tissue and animal tissue?

A- Plant tissue

. Animal tissue

1. Most of the plant tissues are dead

1. Most of the animal tissues are living

2. In plant cells growth is limited to certain region

2. In animal cells growth is more complex

3. These are classified as meristematic tissue and permanent tissue

3. These are classified as epithelial, connective, muscular and nervous tissue

Q10- List two characteristics of cork. Name the chemical present in them and mention its role.

A- Cells of the cork are dead.

2. Cells of the cork are compactly arranged without intercellular space between them.

B. They have a chemical called suberin in their walls that makes them impervious to gases and water

Q11- What is epidermis? What is its role?

A- Epidermis is a single layer of cells that cover all the parts of the plant externally.

Role

1. Protection :- It protects against loss of water, mechanical injury and invasion by parasitic fungi

2. Secretion :- Epidermal cells on the aerial part of the plant often secrete a waxy layer which helps in protection from mechanical injury and water loss.

3. Absorption :- Root hair present on the epidermis of root helps in absorption of water and minerals from the soil.

Q12- Name the type of tissue whose cells are filled with fat globules. State its function.

A- Adipose tissue stores fat in our body. The cells of this tissue are filled with fat globules. It is present below the skin and between the internal organs.

Functions-

1. Storage of fat.

2. Act as an insulator.

Q13- Why is blood called connective tissue?

A- Blood is called connective tissue because it transports gases and digested food hormones and waste materials to different parts of the body

Q14.1-Why are complex tissue called so?

2- Write names of different types of complex tissues.

3- State the functions of these tissues.

A-1. Tissues which are made up of more than one type of cells and coordinate to perform a common function are called as complex tissue.

2. There are two types of permanent tissue xylem and phloem

3. Xylem conducts water and minerals from the soil to different parts of the plant.

Phloem conducts prepared food from the leaves to all the parts of a plant.

Q15-Give one reason for the following statements:-

1- Muscles are able to contract and relax to bring about movements.

A- It is because muscles contain special proteins called contractile proteins which contract and relax to cause movements.

2- Muscles of heart are called involuntary muscles.

A- Muscles of heart contract and relax throughout life without getting fatigue. So they are called involuntary muscles.

Q16. 1. What type of tissue is bone?

2. What is the hard matrix made up of?

3. Write the functions of ligaments and tendons

A 1. Connective tissue

2. It is made up of compounds of calcium and phosphorus.

3. Ligament connect two bones

• Tendons connect muscles to bones.

Q17- Give reasons for the following-

1-Cells of sclerenchyma are tissue have a narrow lumen.

2-It is difficult to pull out the husk of coconut.

A-1. Sclerenchyma tissue has cells which have thick lignified walls due to which inside space narrowed down

2. It is difficult to pull out the husk of coconut as it contains sclerenchymatous fibres which are closely packed.

Q18- Plants require less energy than animals. Give reason

A- Most of the component in plant tissue is dead and do not have to move in search of food so they need less energy than animals which have most of the cells living which need energy for their maintenance.

Q19- What is the structure and nature of parenchyma tissue?

A living cells ,cell wall composed of cellulose ,large intercellular spaces

Q20-List functions of phloem tissue.

A- 1. Phloem transport food in both directions .

2. Sieve tubes and companion cells are involved in translocation of organic substances .

Q21- Why do meristematic cells lack vacuole?

A- The purpose of vacuole is to store food and waste products. Since meristems are young cells and are actively dividing, they do not participate actively in food preparation and hence lack vacuoles

Q22- Where do we find epithelial tissues on animal body?

A-Skin The lining of the mouth The lining of blood vessels Lung alveoli Kidney tubules

Q23- Why are striated muscles called skeletal muscles?

A- Because they are mostly attached to bones and help in body movement.

Q24- Where do we find Nerve cells?

A- A Nerve cells are present in the brain, spinal cord and nerves.

Q25- What type of intercellular matrix is found in bone tissue? What are its constituents?

A- Bone cells are embedded in a hard matrix that is composed of calcium and phosphorus compounds.

Q26-What is the shape of cuboidal epithelium? Where do we find these tissues?

A- These are somewhat square or cuboid in shape. Cuboidal epithelium is found in kidney tubules, ducts of salivary glands etc.

Q27- How will you identify columnar epithelium ?Where are these tissues located?

A- Columnar epithelium are elongated and pillar shaped. They are present in the lining of stomach and intestine