



Unit 5 • Body Structure and Life Process: tissues

Name _____ Class _____ Roll no. _____ Date _____ Marks _____ / 33

1 Key words

[4]

Fill in the blanks with words from the box. Two words in the box are not needed. Each blank carries 0.5 mark.

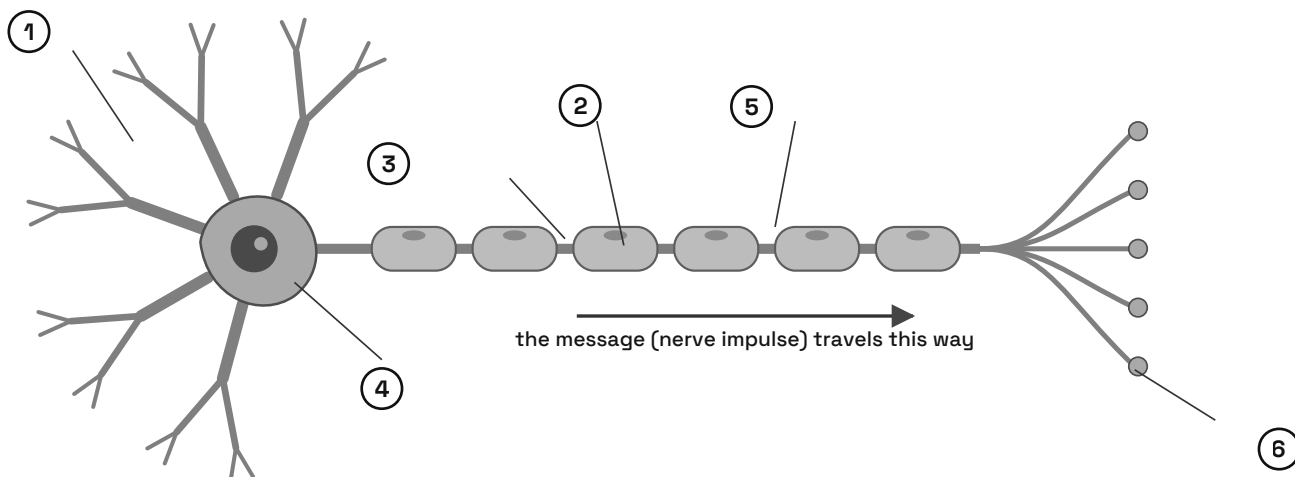
cambium cilia histology intercalary ligament lignin matrix meristem osteocytes
pectin

The branch of biology that studies tissues is called _____. A plant tissue whose cells keep dividing is called a _____. The lateral meristem that makes a stem thicker is called the _____, and the _____ meristem at the base of the internodes makes the internodes longer. The walls of sclerenchyma cells are hardened by a substance called _____. In the windpipe, the columnar cells carry tiny moving hairs called _____. The material between the cells of a connective tissue is called its _____, and a cord of dense connective tissue that joins a bone to a bone is called a _____.

2 Label the diagram

[3]

The diagram shows a neuron. Write the names of the parts numbered 1 to 6. Each carries 0.5 mark.



1. _____

2. _____

3. _____

4. _____

5. _____

6. _____



[5]

Choose the correct option for each of the following questions.

- i. Which kind of tissue has cells that can divide? [1]
 - a. complex tissue
 - b. connective tissue
 - c. permanent tissue
 - d. meristematic tissue
- ii. Which tissue lines the tubules of the kidney and the ducts of the salivary glands? [1]
 - a. squamous epithelium
 - b. glandular tissue
 - c. cuboidal epithelium
 - d. columnar epithelium
- iii. A tree's trunk becomes thicker year by year. Which meristem does this? [1]
 - a. apical meristem
 - b. lateral meristem (cambium)
 - c. intercalary meristem
 - d. the meristem at the root tip
- iv. Why are the walls of the lungs' air sacs made of **squamous** epithelium? [1]
 - a. its cells are tall, so they hold more air
 - b. its single layer of flat cells is so thin that oxygen and carbon dioxide pass through quickly
 - c. it has cilia that push the air in
 - d. it makes mucus that dissolves oxygen
- v. A ring of bark is stripped from around a tree trunk. After some weeks the bark just **above** the ring swells. Why? [1]
 - a. water carried up by the xylem collects there
 - b. food carried down by the phloem can't go further and collects there
 - c. the cambium stops working there
 - d. the xylem is damaged, so the tree swells with air

[3]

Write very short answers to the following questions.

- a. Which connective tissue joins a muscle to a bone? [1]
-
-
- b. Which blood cells help the blood to clot at a wound? [1]
-
-
- c. Why does grass grow back after a cow eats the top off it? [1]

[8]

Write short answers to the following questions.

- a. Give a reason: a plant stops growing taller when its tip is cut off. [2]



b. Give a reason: xylem is called a complex permanent tissue. [2]

c. Write any two differences between xylem and phloem. [2]

d. Give a reason: blood is called a liquid connective tissue. [2]

6 Long answers [8]

Write long answers to the following questions.

a. What is permanent tissue? Describe its kinds briefly, with examples. [4]

b. Write any four functions of epithelial tissue, with an example of each. [4]



7 Think

[2]

Think, then answer.

A zygote is a single cell. How does it become a body with skin, bones, blood and a brain?

8 Activity: Feel bone and cartilage

(not marked)

Press and gently bend each part of your body in the table, and write what you find.

Part	Does it bend and spring back?	Bone or cartilage?
tip of the nose		
bridge of the nose		
top of the outer ear		
elbow		
shin		

Why are the ends of long bones covered with cartilage?

