

4/7/21 HOMEWORK

1. Define secondary growth.

Ans: Secondary growth is an increase in girth (width) of a plant initiated by cell division in lateral meristems. It happens simultaneously but in the different parts of woody plant.

* Secondary growth adds width to older areas of the stems and roots that are no longer growing in length.

* Typically, stems have much more secondary

growth than roots.

2. Name the meristematic tissue responsible for secondary growth in stems.

Ans) Lateral Meristems is the meristematic tissue responsible for secondary growth in stems.

3. What are the two types of cambium? Write one difference between them.

Ans) The two types of cambium are-

Cork Cambium and Vascular Cambium

Cork cambium

Vascular cambium

* It gives rise to the bark and the secondary cortex

* Gives rise to the secondary xylem and phloem.

4. Explain how bark of a tree is formed. How does it act as a protective tissue?

Ans) ⇒ The cork/bark of a tree is formed when the older roots and stem tissues, the peripheral one turn to phellum and dead cells. It has thick dead cell wall with no intercellular spaces and protoplasm. They are impermeable due to waxy deposit of suberin.

⇒ It acts as a protective tissue as it is thick coated and protects the cell from desiccation (water loss), infection and any kind of mechanical

(physical) injury.