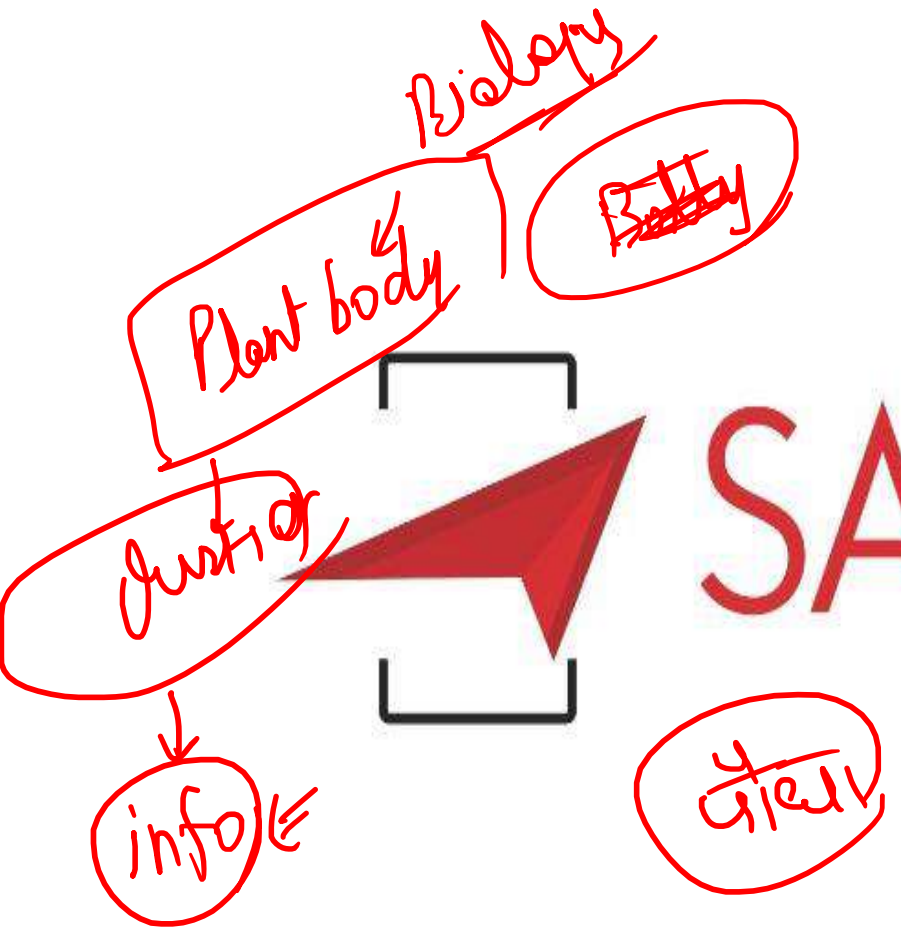

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परीक्षा की चिंता छोड़िए

पाएं ऑनलाइन
वीडियो कोर्स का
एक महीने का सब्सक्रिप्शन
बिल्कुल फ्री

13 घंटे की मैराथन
LIVE क्लास इस रविवार

ऑफर (17-19 दिसंबर) के लिए मान्य

अभी डाउनलोड करें
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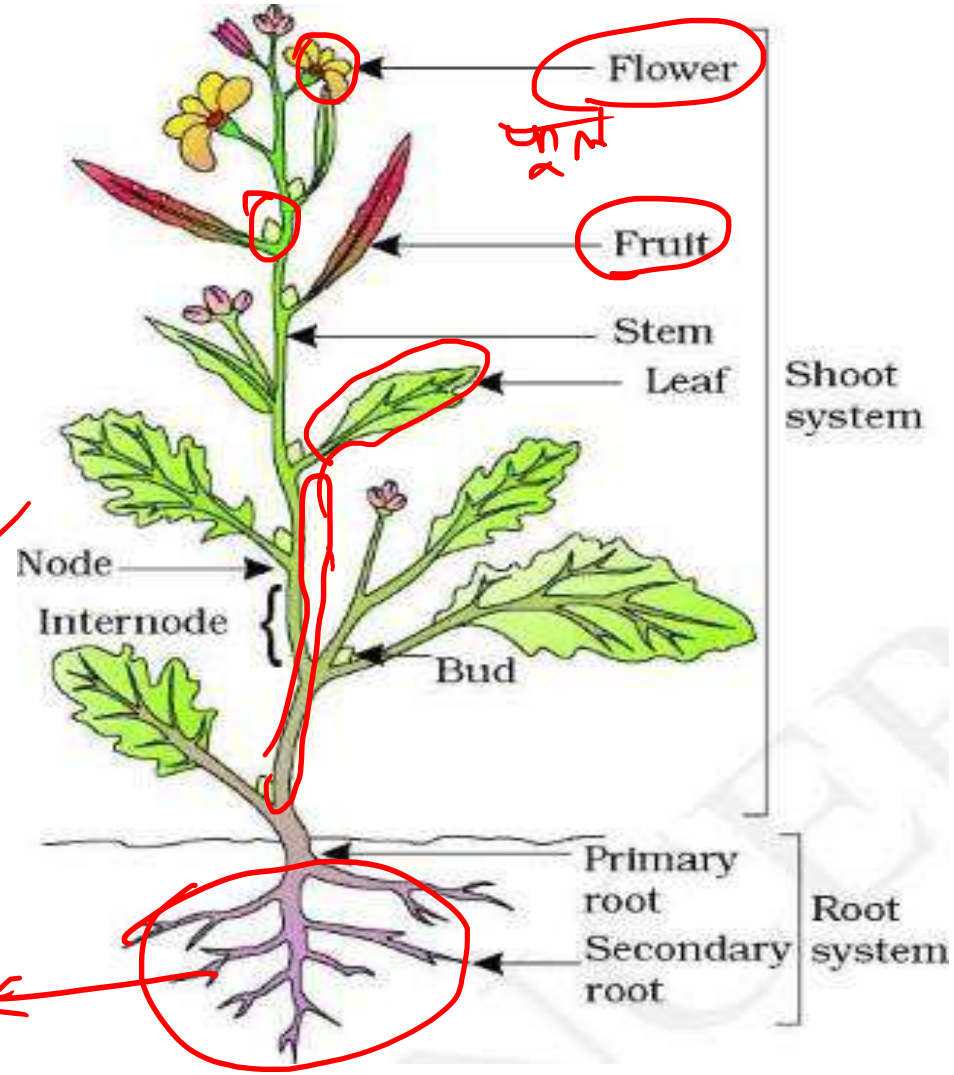
Parts Of Plants

The main parts of a plant include:

- Roots
- Stem
- Leaves
- Flowers
- Fruits

- Leaf Venation

- Modifications
- Root Modification
- Stem Modification
- Leaf Modification



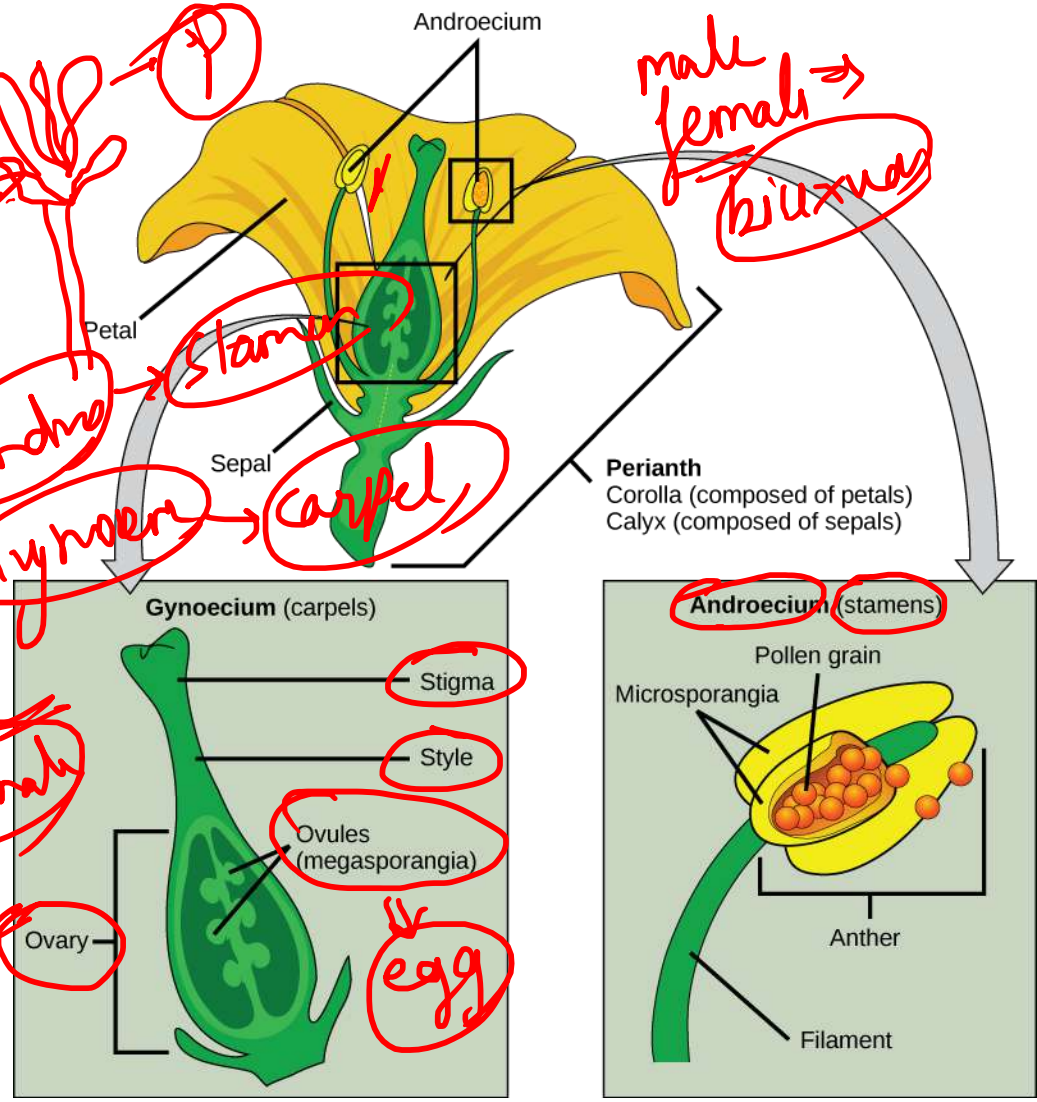
BIOLOGY MCQS

Which of the following is the female part of the flower?

A. Petals
B. Sepals
C. Stamens
D. Pistil

Option D.

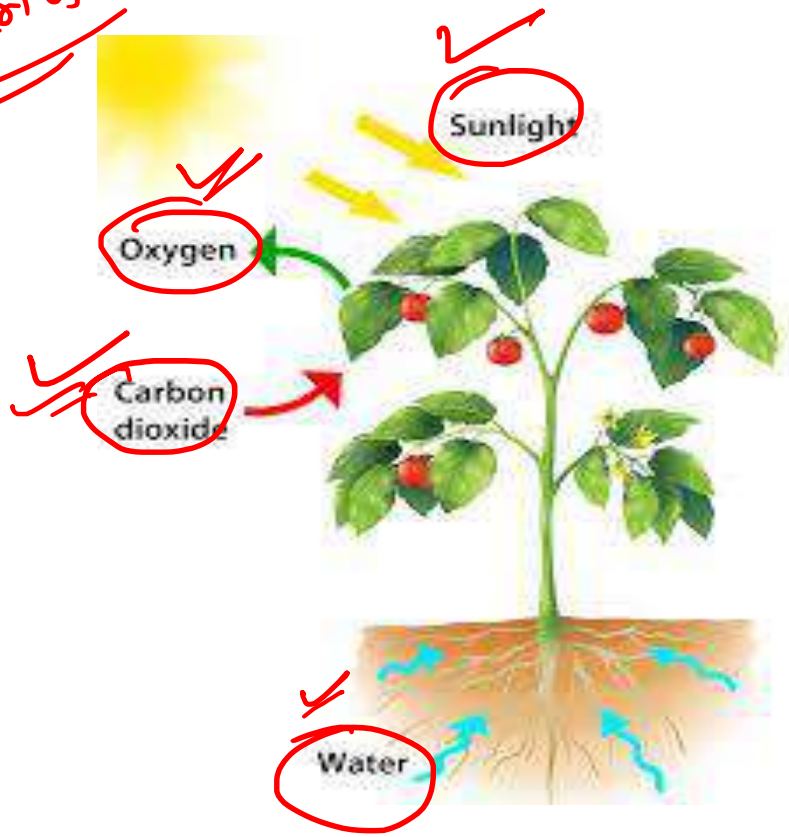
1. Becomes the fruits and seeds.
2. It consists of three functional parts which are stigma, style, and ovary.
3. It helps in the reproductive system as when stamens or birds or bees drop pollen onto the pistil, it pulls in the pollen.



Which of these is not essential for photosynthesis?

1. Carbon dioxide
2. Water
3. Oxygen
4. Sunlight

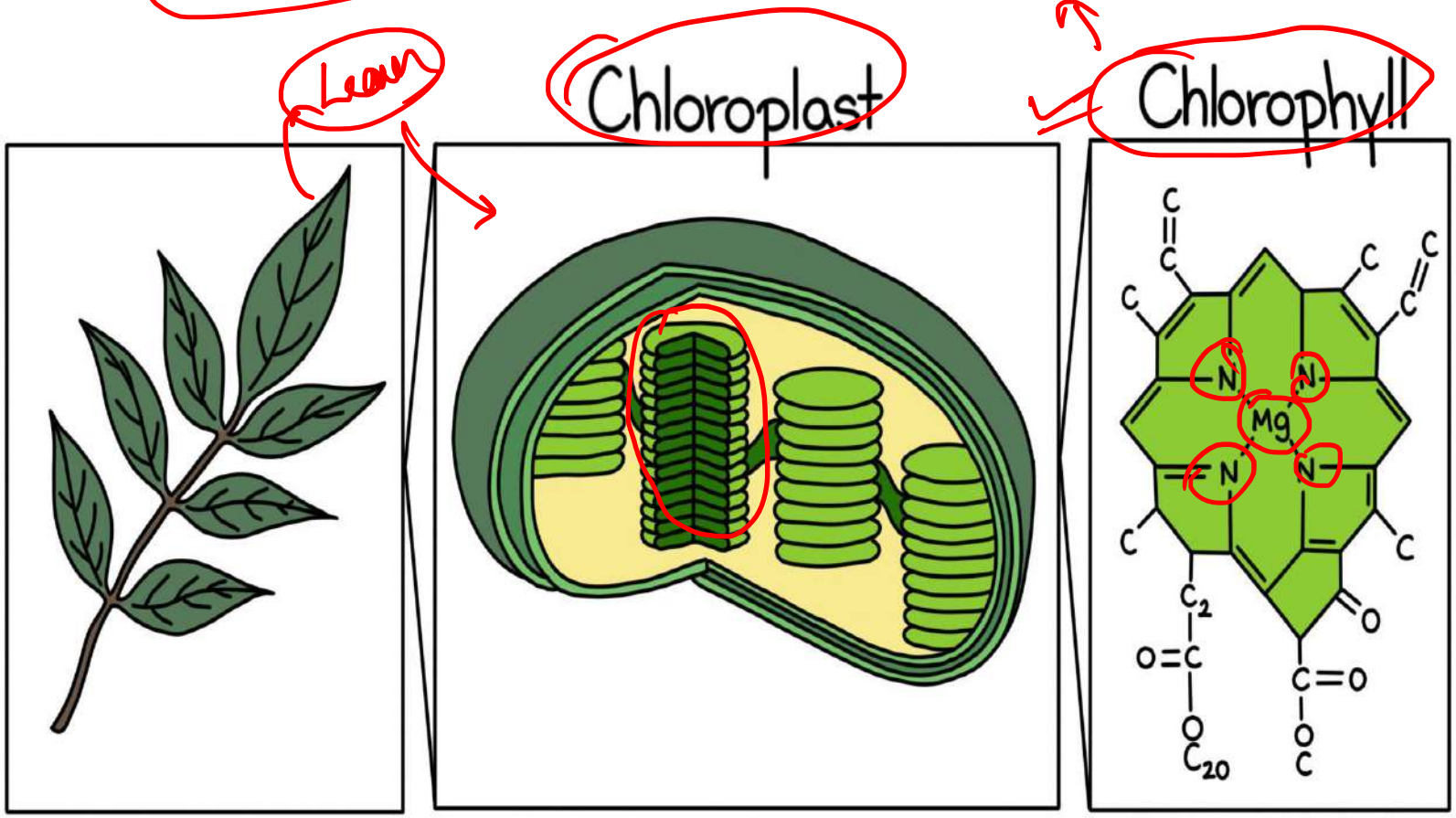
Answer (c).



Which element is required by plants to synthesize chlorophyll?

1. Magnesium
2. Sodium
3. Manganese
4. Helium

Answer (a).



Which of the following causes Rust of Wheat disease?

1. Bacteria
2. Virus
3. Fungus
4. Protozoan

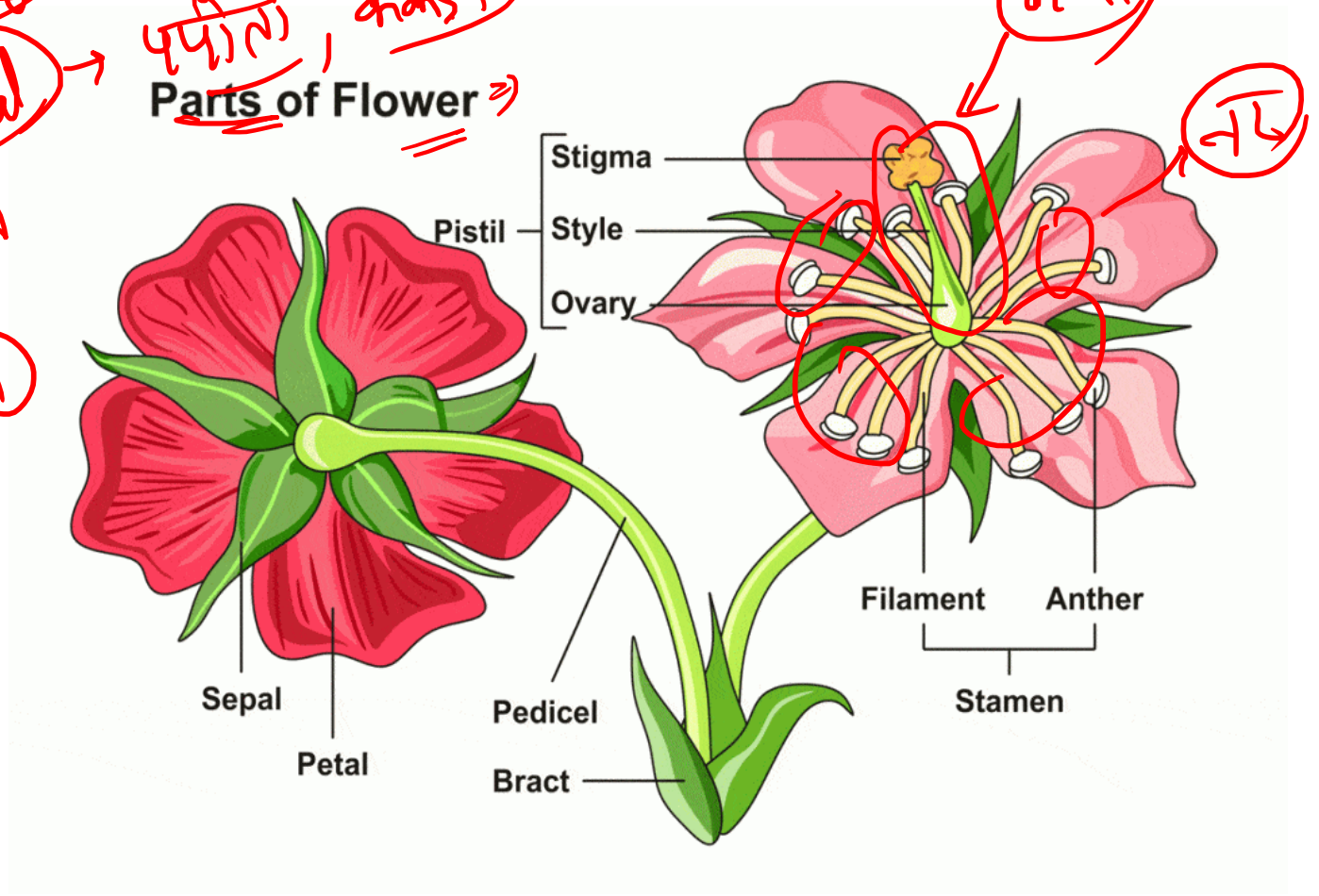
Answer (c).

Stem

The plant which produces bisexual flowers is –

1. Papaya
2. Cucumber
3. Rose
4. Corn

Answer (c).



Ocimum tenuiflorum is the scientific name of which plant?

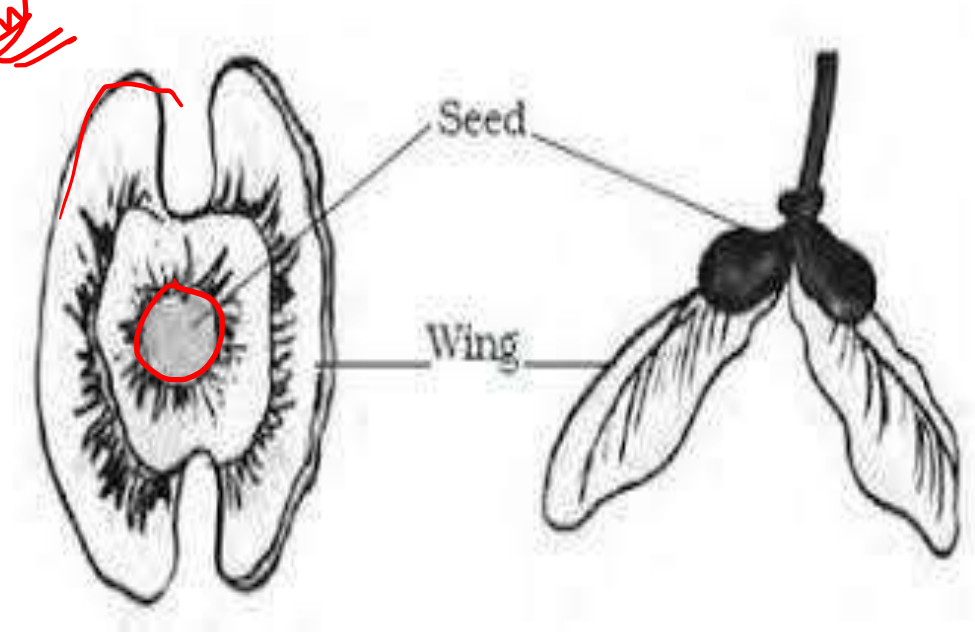
1. Cinnamon
2. Cardamom
3. Basil
4. Neem

Answer (c).

Which of these produces winged seeds so that they can be carried by wind to other places?

1. Xanthium
2. Drumstick
3. Spinach
4. Bitter gourd

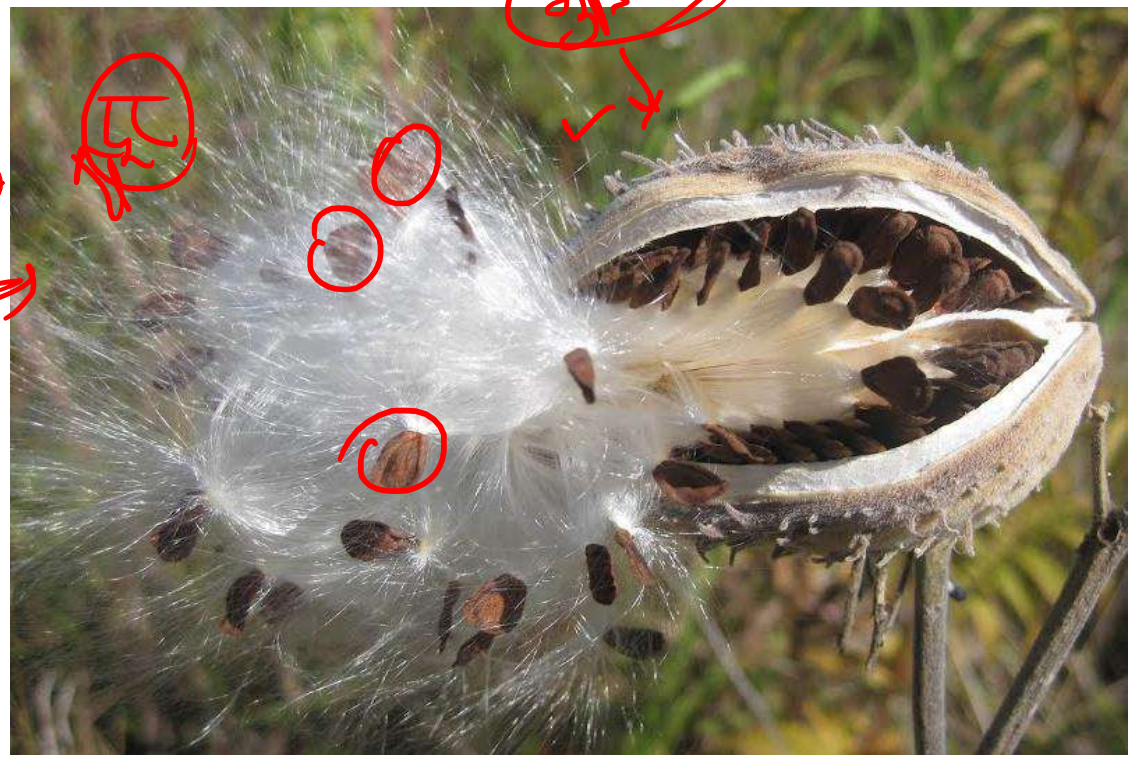
Answer (b)



In which of these plants do the fruits burst to scatter the seeds for propagation?

1. Castor
2. Papaya
3. Cotton
4. Martynia

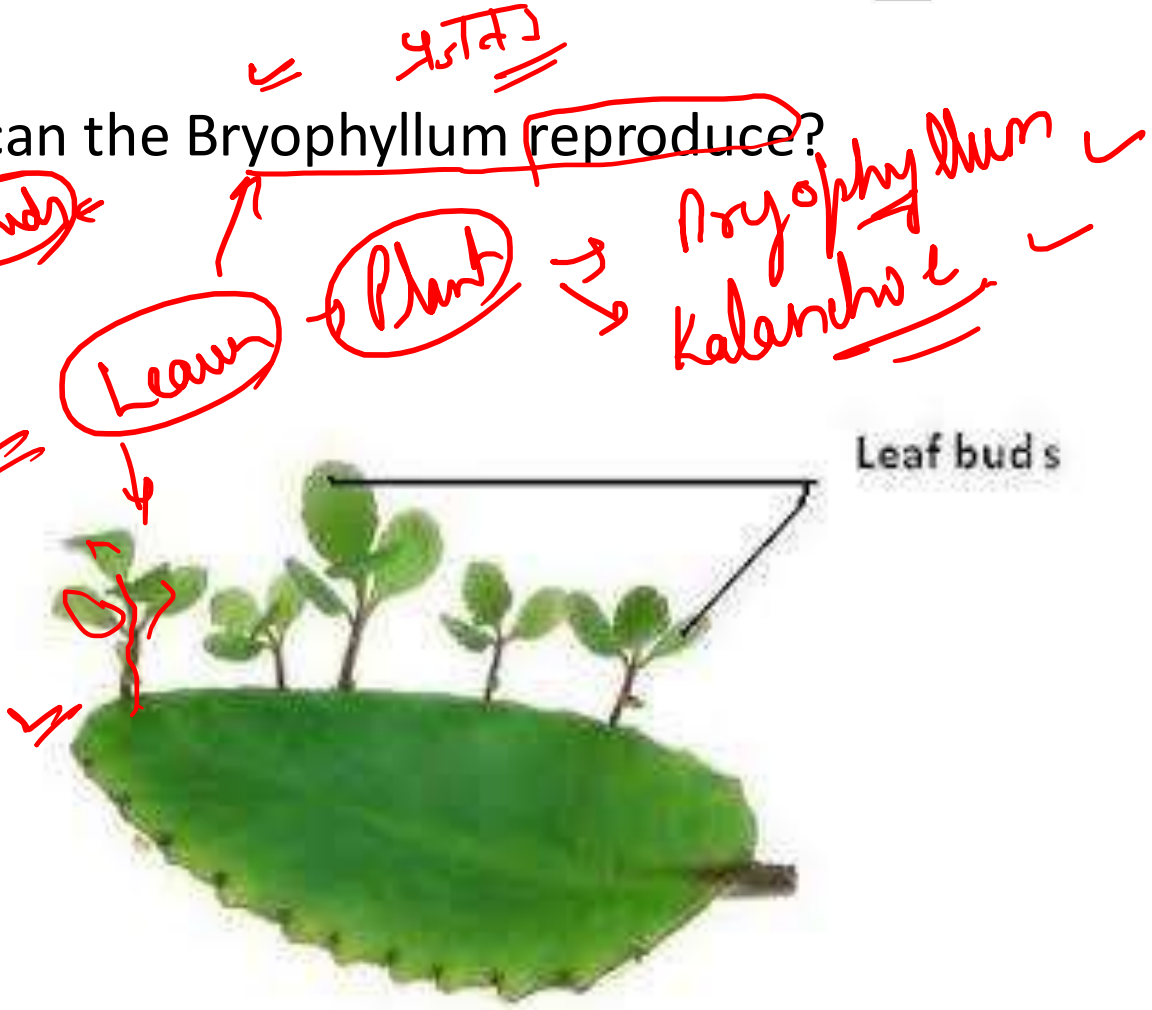
Answer (a).



Through which of the following can the Bryophyllum reproduce?

1. Stem
2. Leaves
3. Roots
4. Flower

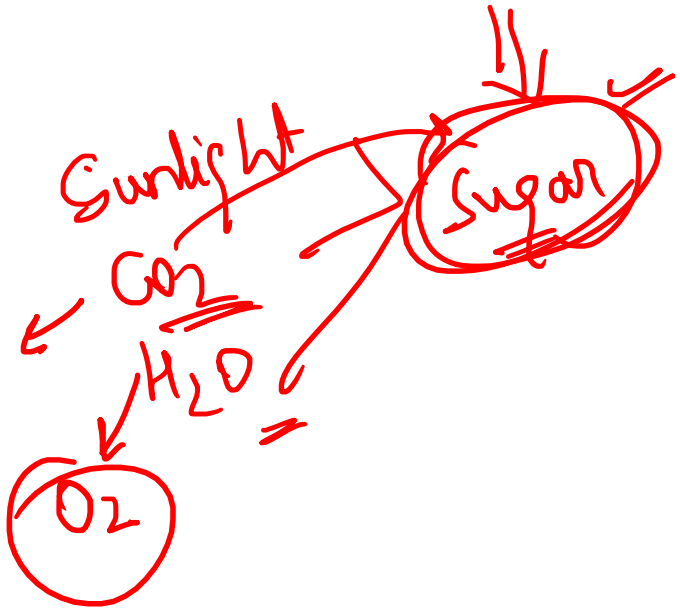
Answer (b)



Oxygen released by plants during the process of photosynthesis comes from

1. Water
2. CO2
3. Chlorophyll
4. Tissues

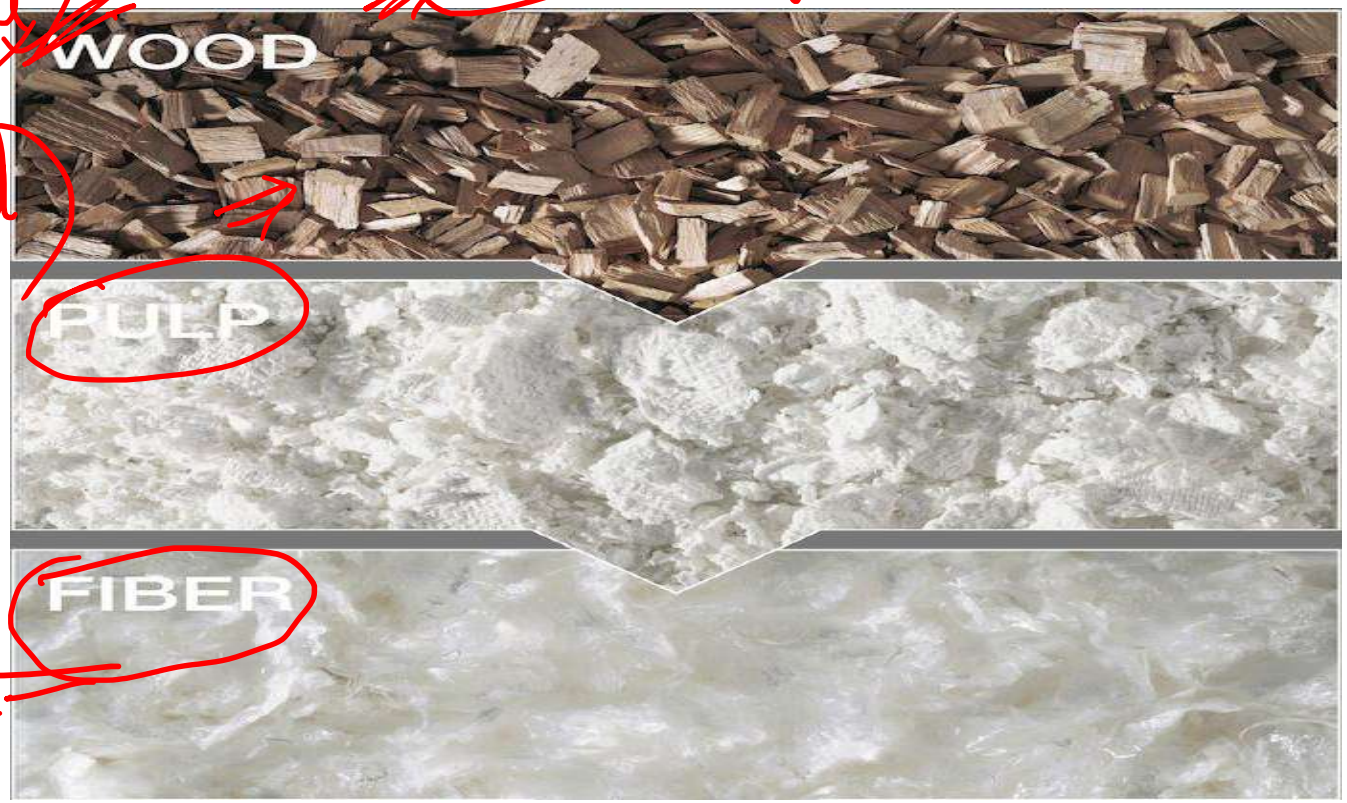
Answer (a).



Which of the following is manufactured from wood pulp?

1. Nylon
2. Acrylic
3. Rayon
4. Bakelite

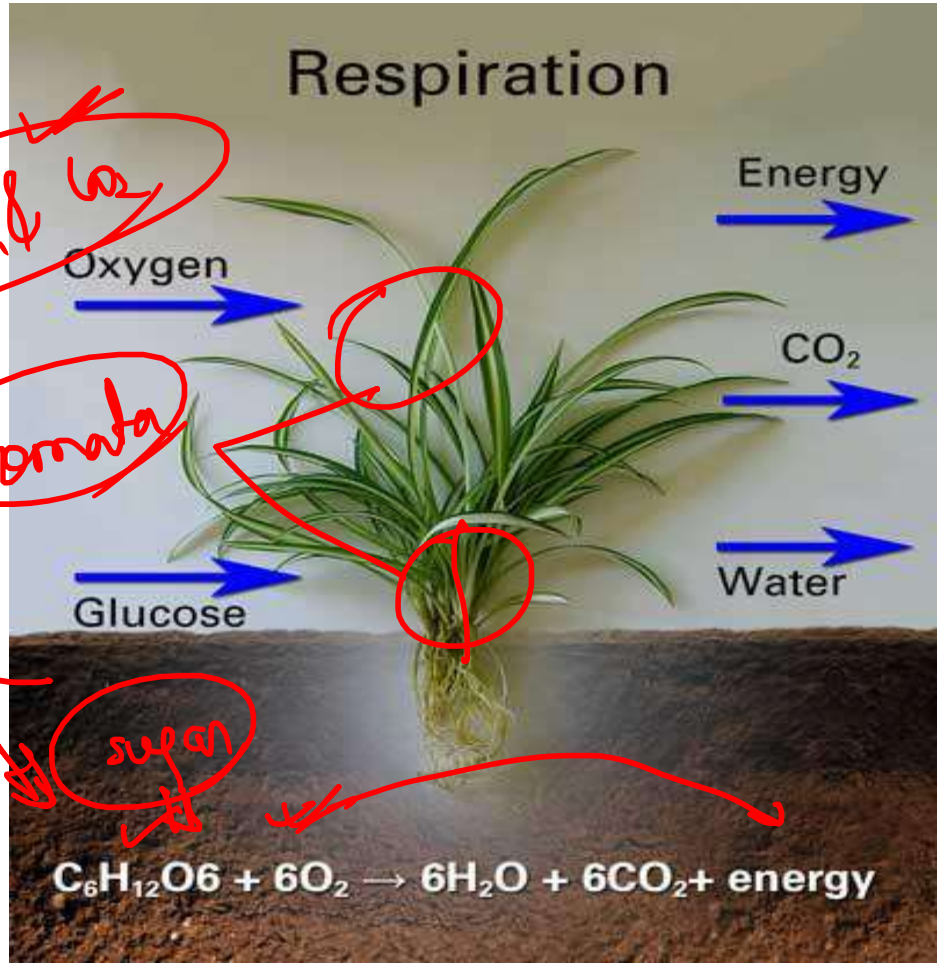
Answer (c).



Which parts of plants respire?

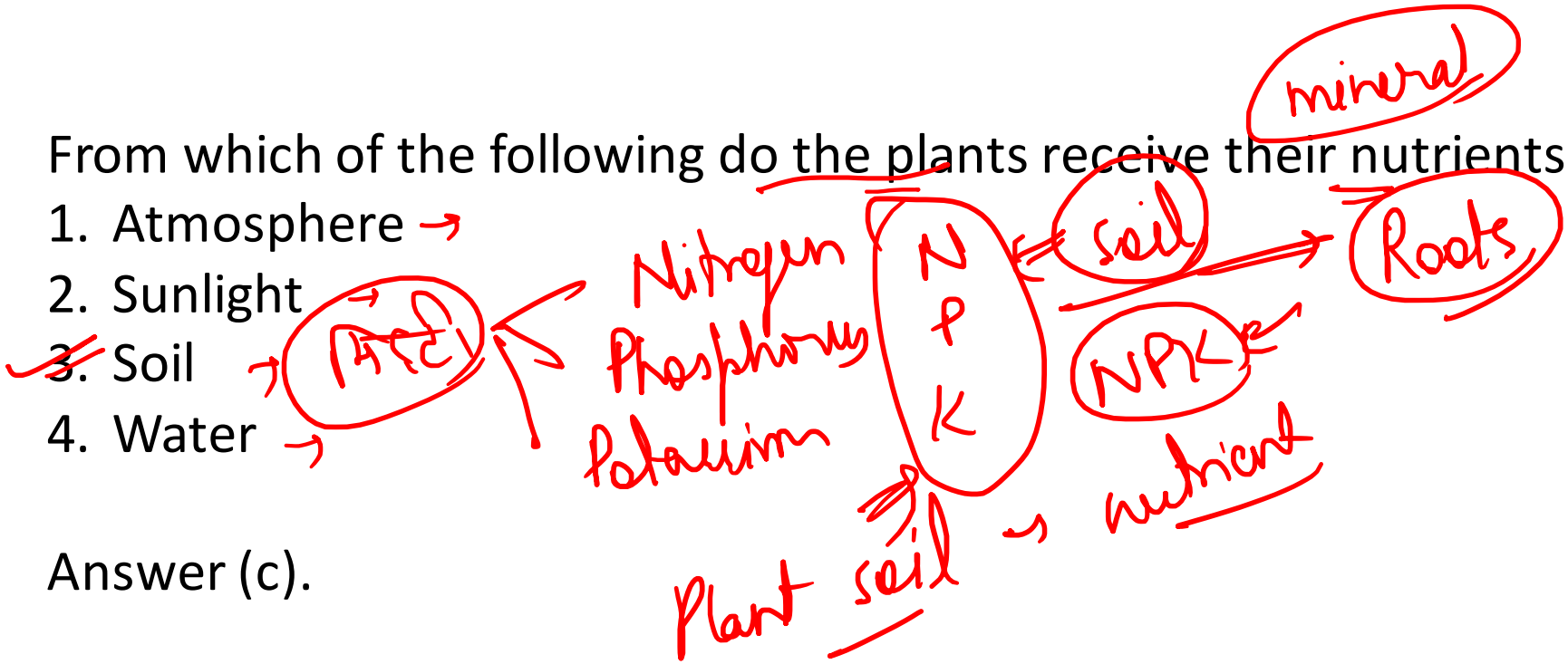
1. Leaves
2. Stems
3. Roots
4. All of the above

Answer (d).



From which of the following do the plants receive their nutrients mainly?

1. Atmosphere
2. Sunlight
3. Soil
4. Water



Answer (c).

Which method is used to propagate banana plants?

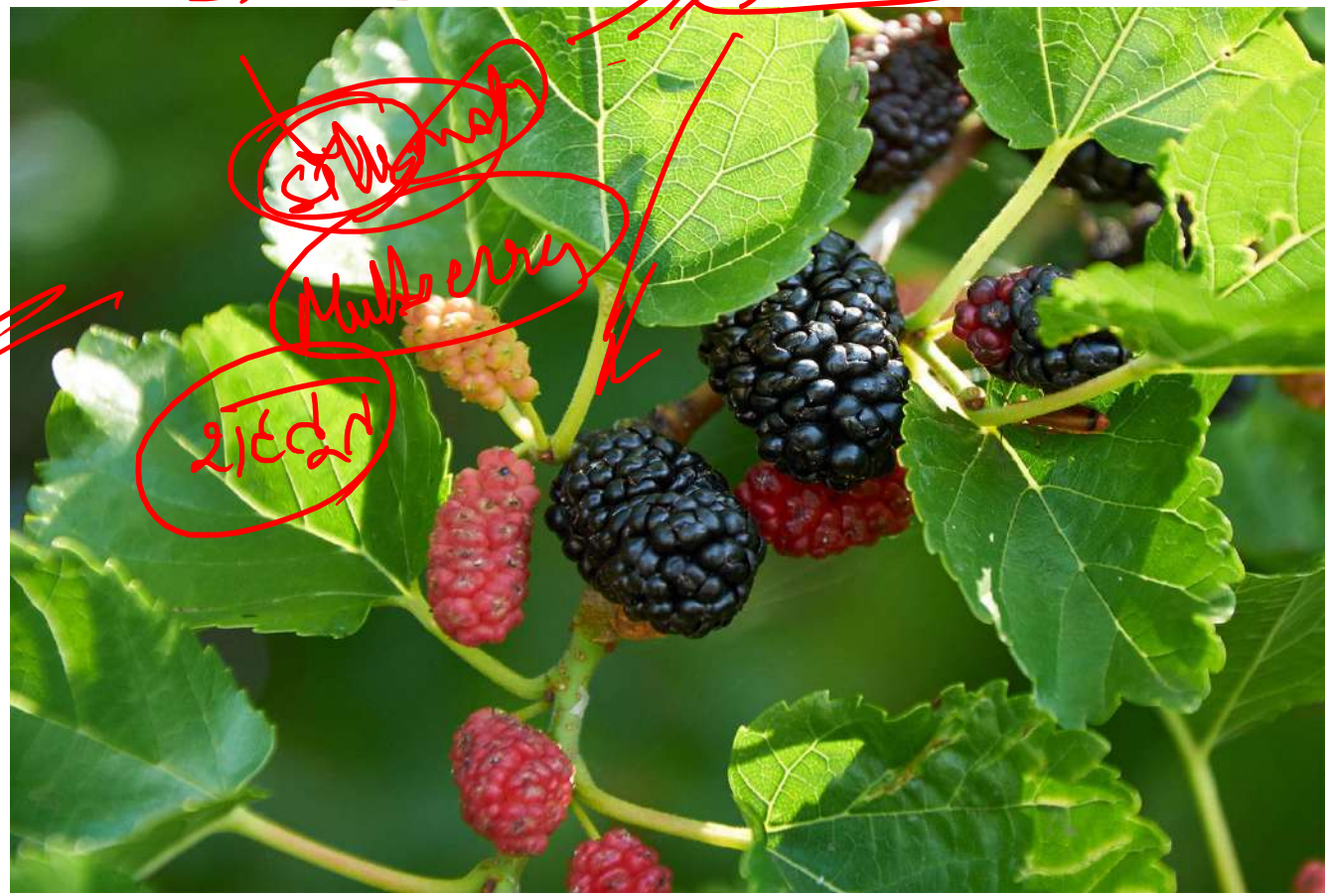
1. Grafting
2. Stem cutting
3. Sucker removal
4. Layering

Answer (c).

Leaves of which tree are mostly used by silkmoth farmers?

1. Mulberry
2. Peepal
3. Banyan
4. Willow

Answer (a).



From which part of the plant is the flax fibre obtained?

1. Root
2. Fruit
3. Stem
4. Seed

Answer (c).

Which of the following is obtained from the plant Camellia sinensis?

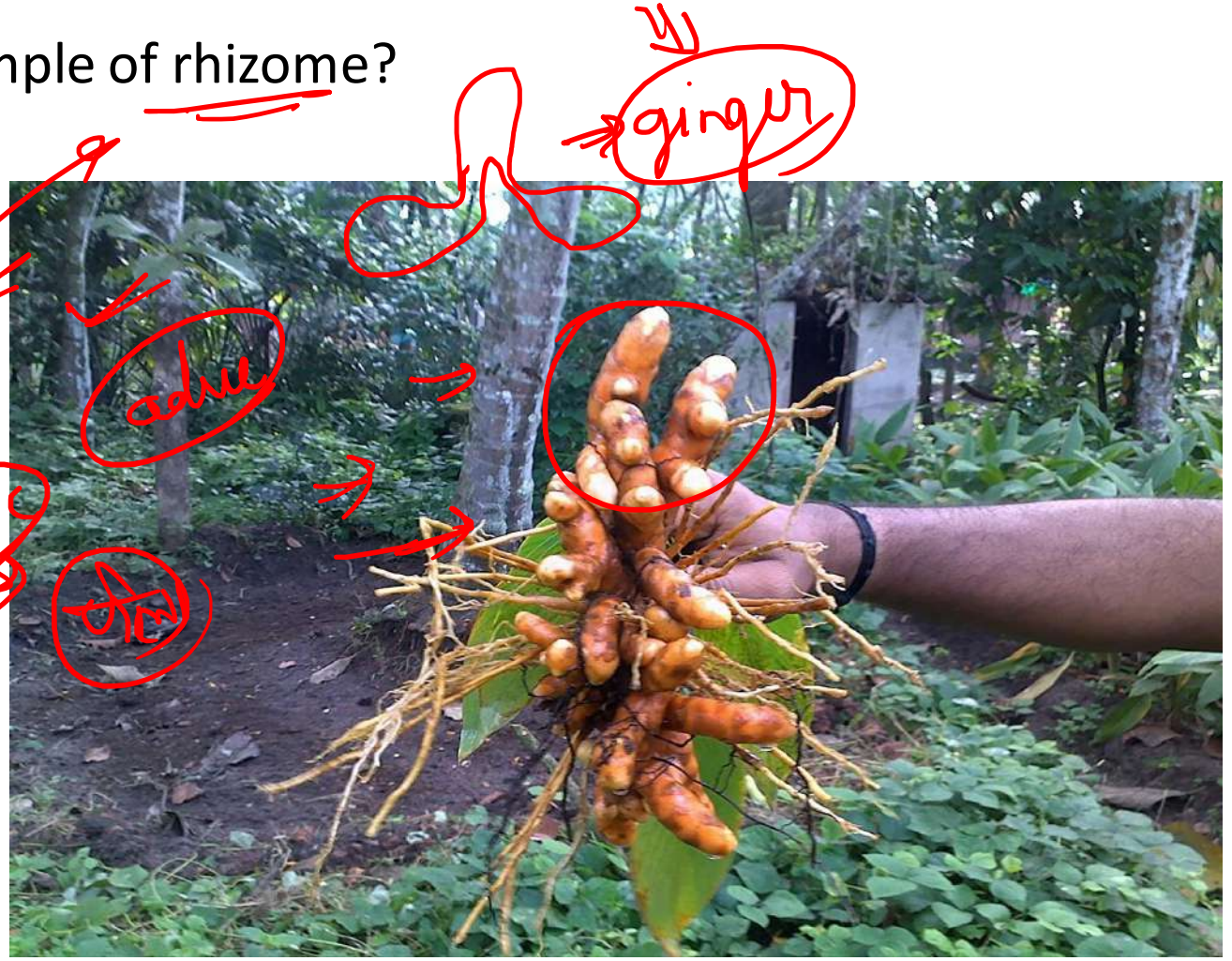
1. Coffee
2. Ginger
3. Tea
4. Cardamom

Answer (c).

Which of the following is an example of rhizome?

1. Potato
2. Radish
3. Turmeric
4. Beet

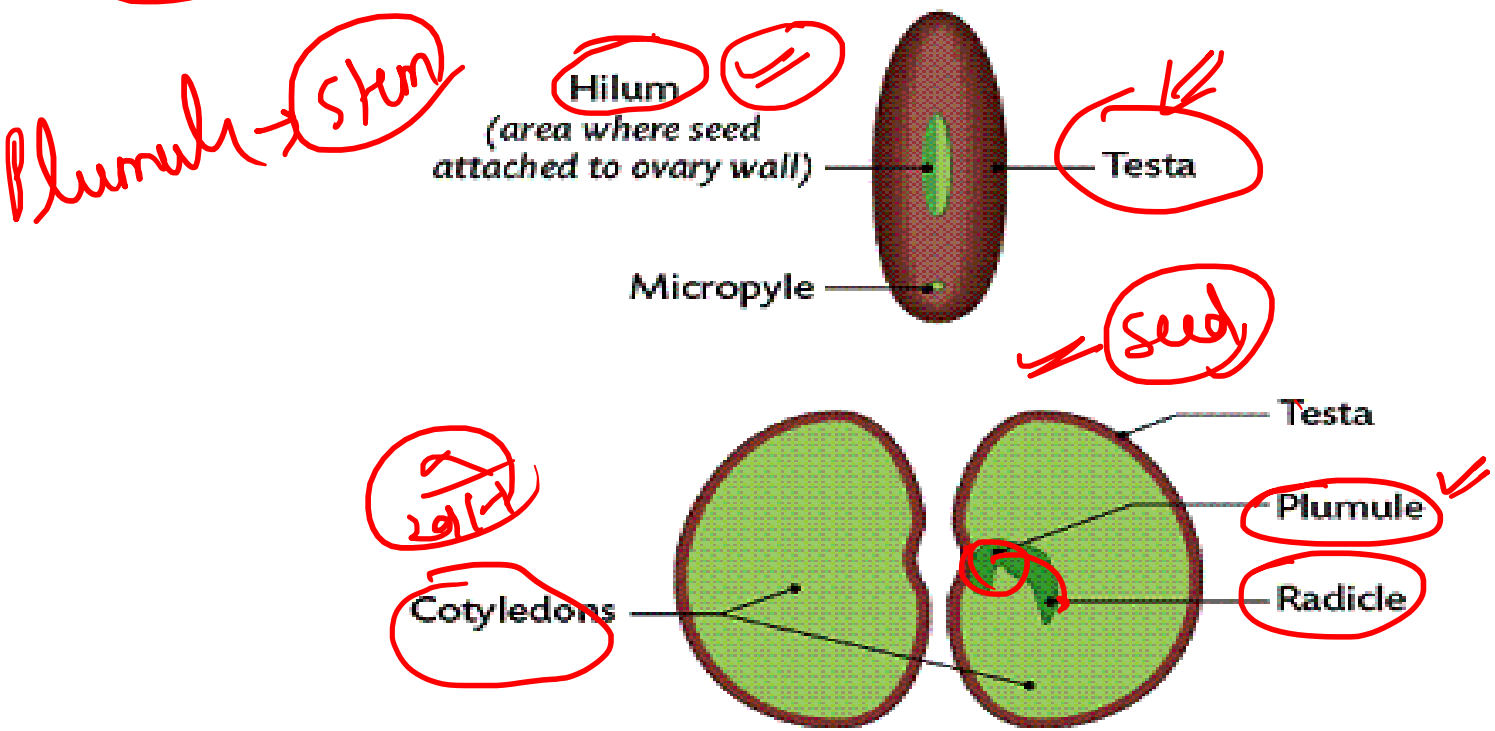
Answer (c).



A radicle is a part of the –

1. Flower
2. Fruit
3. Root
4. Seed

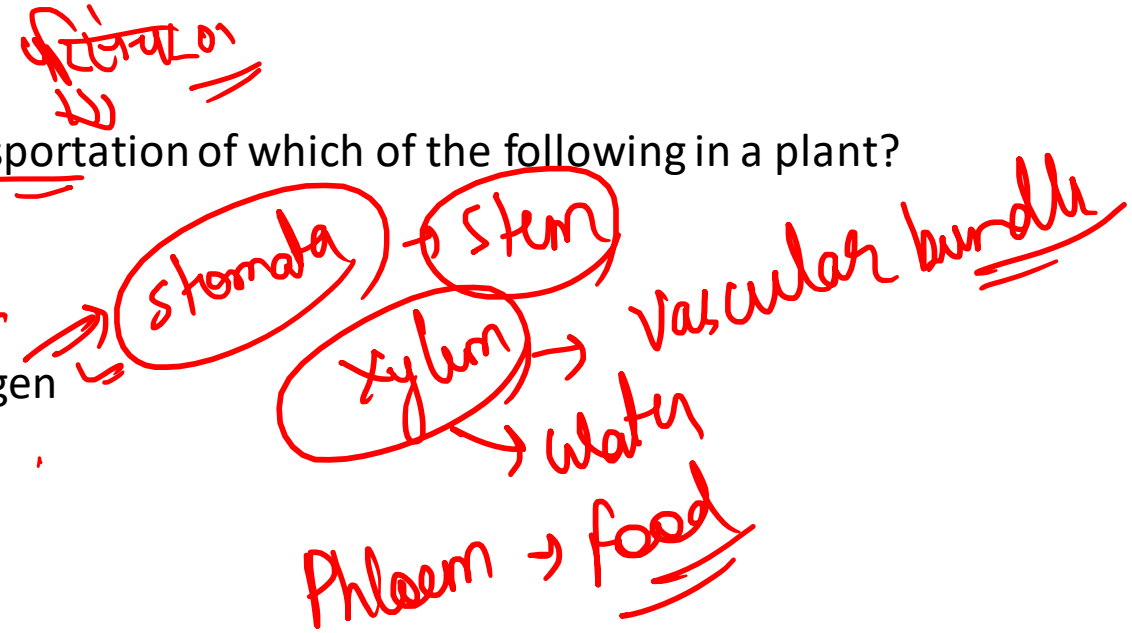
Answer (c).



Xylem helps in the transportation of which of the following in a plant?

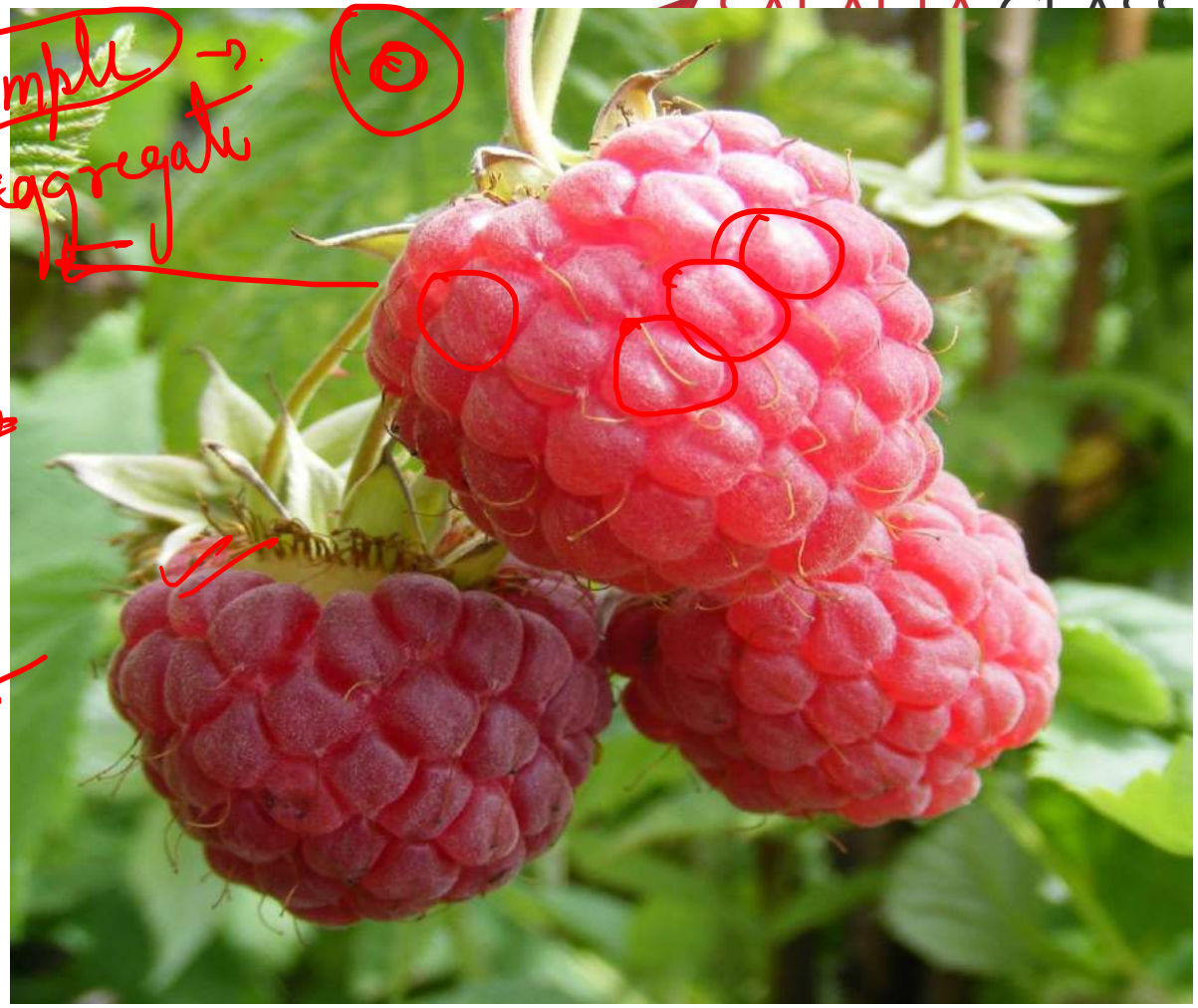
1. Oxygen
2. Water
3. Carbon dioxide
4. Both water and oxygen

Answer b



Which of the following is an aggregate fruit?

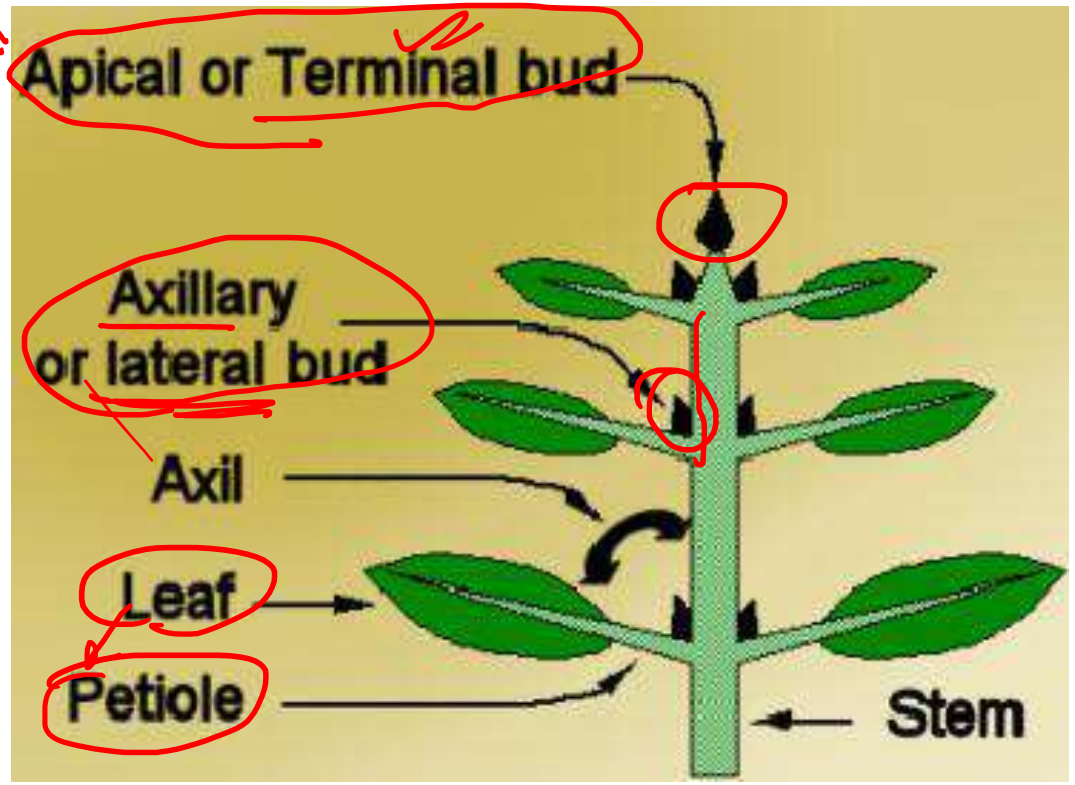
1. Mango
2. Raspberry
3. Tomato
4. Guava



Auxillary bud develops into –

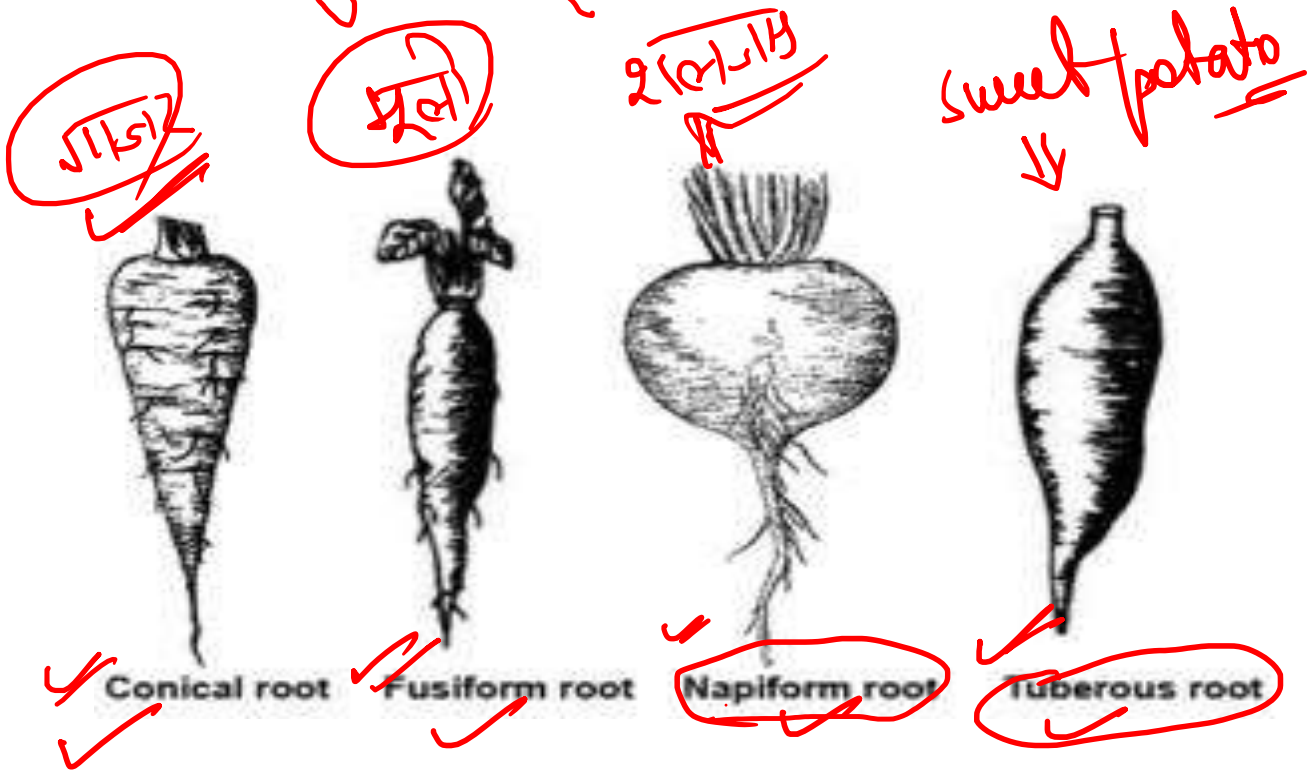
1. Flower
2. Stem
3. Root
4. Fruit

Answer (b).



Grass: Fibrous root :: Carrot : ?

1. Fibrous root
2. Tap root
3. Standard root
4. None of the above



Roots

- Anchors The Plant
- Absorb Water And Minerals From The Soil,
- Synthesise Plant Growth Regulators,
- Store Reserve Food Material.

The apical part of the root is covered by the root cap that protects the root apex.

- Radicle → Primary Roots In Dicots.
- Lateral Roots → Secondary And Tertiary Roots.

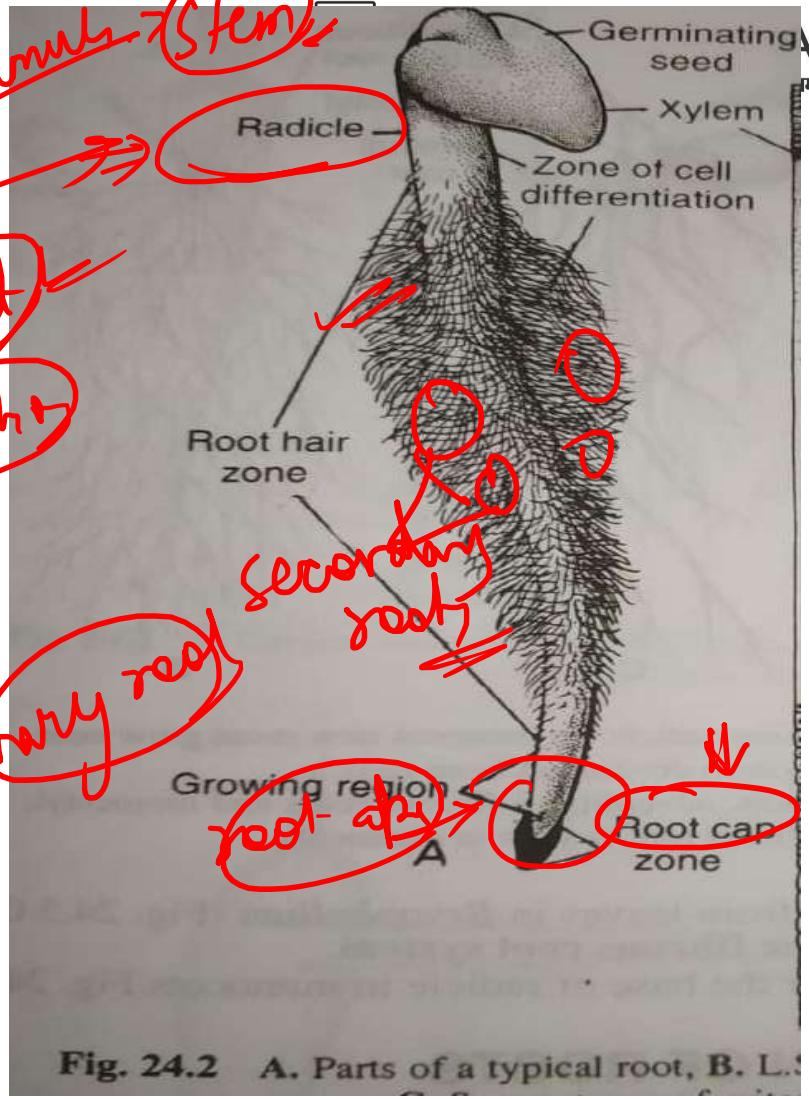


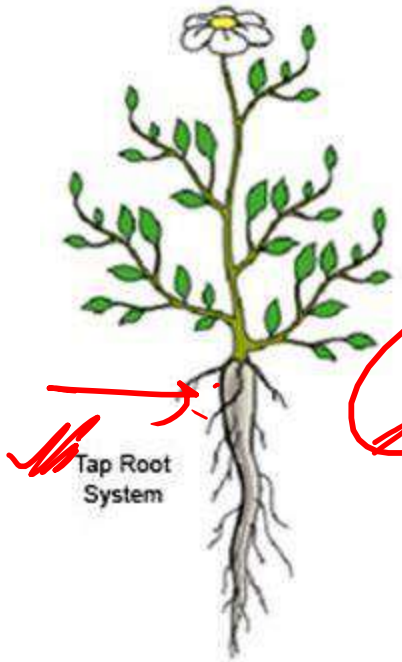
Fig. 24.2 A. Parts of a typical root, B. L.

- Apex -thimble-like structure called the **root cap**.
- Tap roots of carrot, turnip and adventitious roots of sweet potato, get swollen and store food.
- Hanging structures that support a banyan tree → **prop roots**.
- Stems of **maize** and **sugarcane** → lower nodes of the stem → **stilt roots**.
- Rhizophora growing in swampy areas, many roots grow vertically upwards → **pneumatophores** → oxygen for respiration.

Root

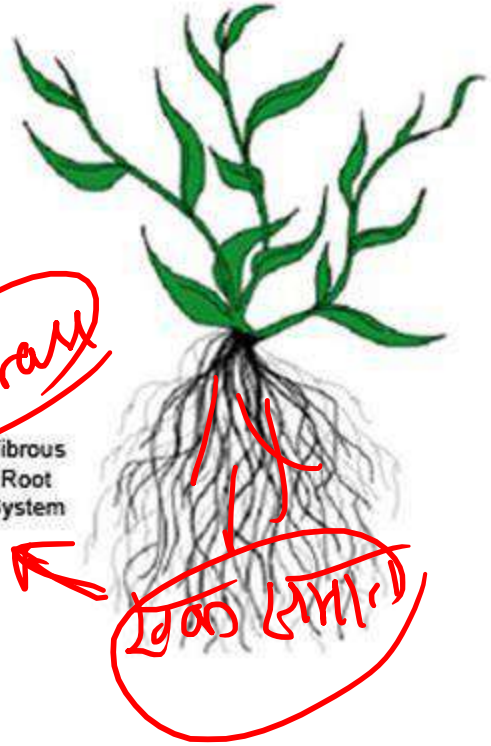
Tap System

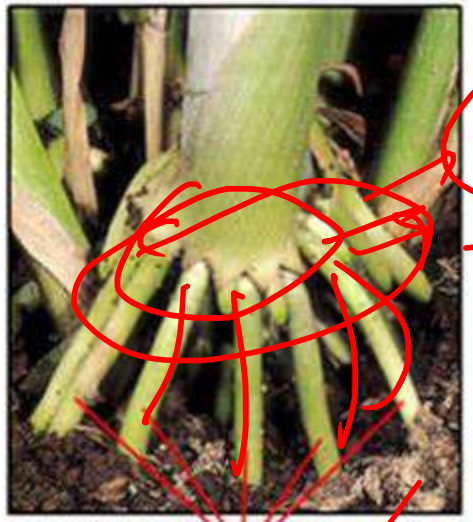
Adventitious → xPhrunk



main

Gras





support

The Stem

- The region of the stem where leaves are born are called **nodes**
- Internodes are the portions between two nodes.
- Underground stems of **potato, ginger, turmeric, zamikand, colocasia** are modified to store food in them.
- **Stem tendrils** which develop from **axillary buds** → help plants to climb such as in gourds (cucumber, pumpkins, watermelon) and grapevines.
- Axillary buds into Thorns → Citrus, Bougainvillea
- Some plants of arid regions modify their stems into flattened (Opuntia), or fleshy cylindrical (Euphorbia) structures.

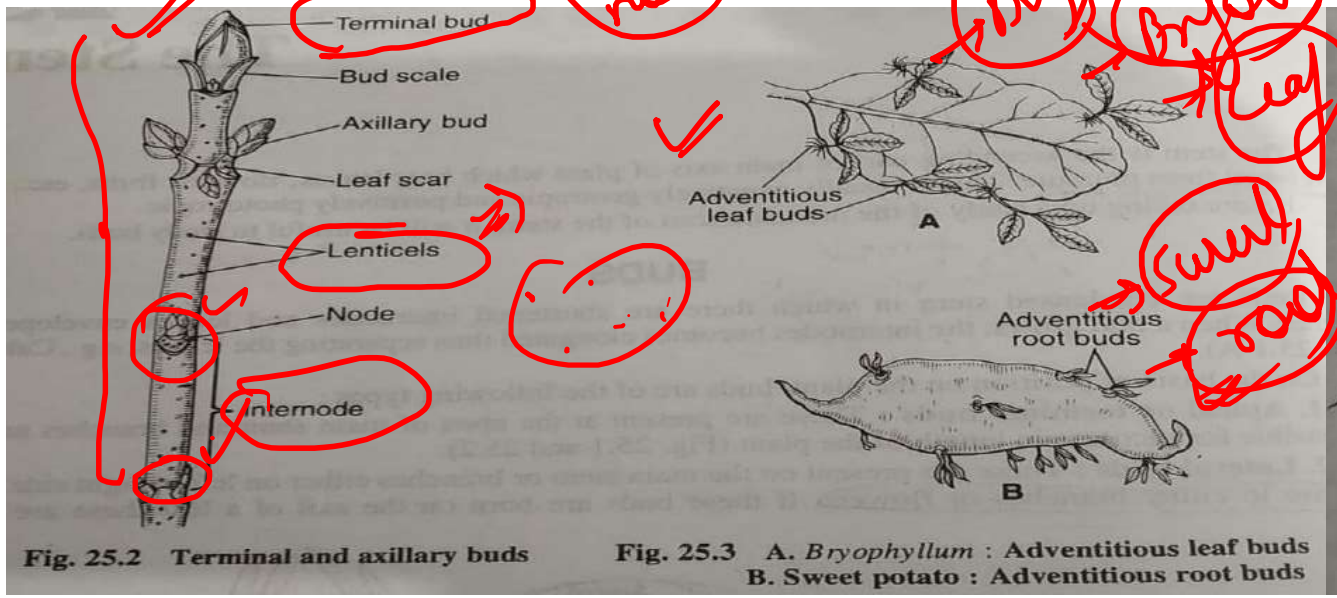


Fig. 25.2 Terminal and axillary buds

Fig. 25.3 A. *Bryophyllum* : Adventitious leaf buds
B. Sweet potato : Adventitious root buds

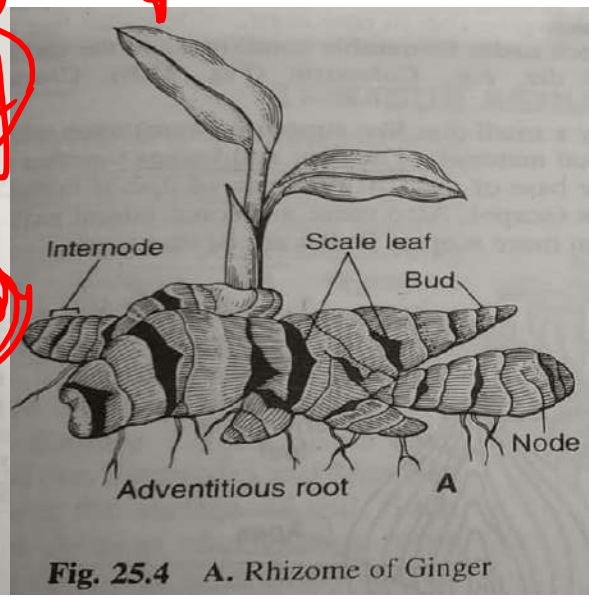
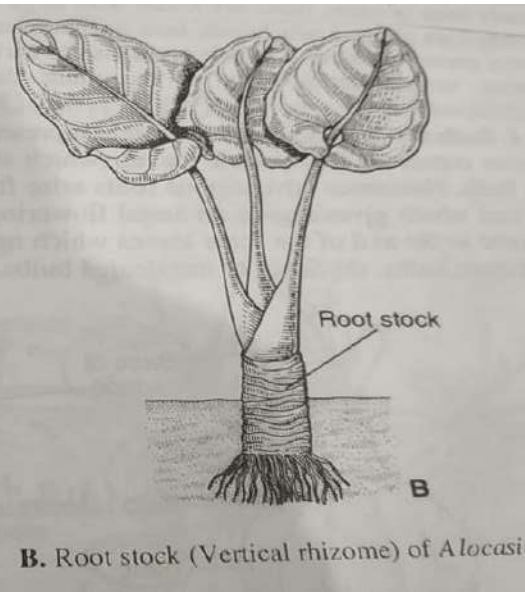


Fig. 25.4 A. Rhizome of Ginger



B. Root stock (Vertical rhizome) of *Alocasi*

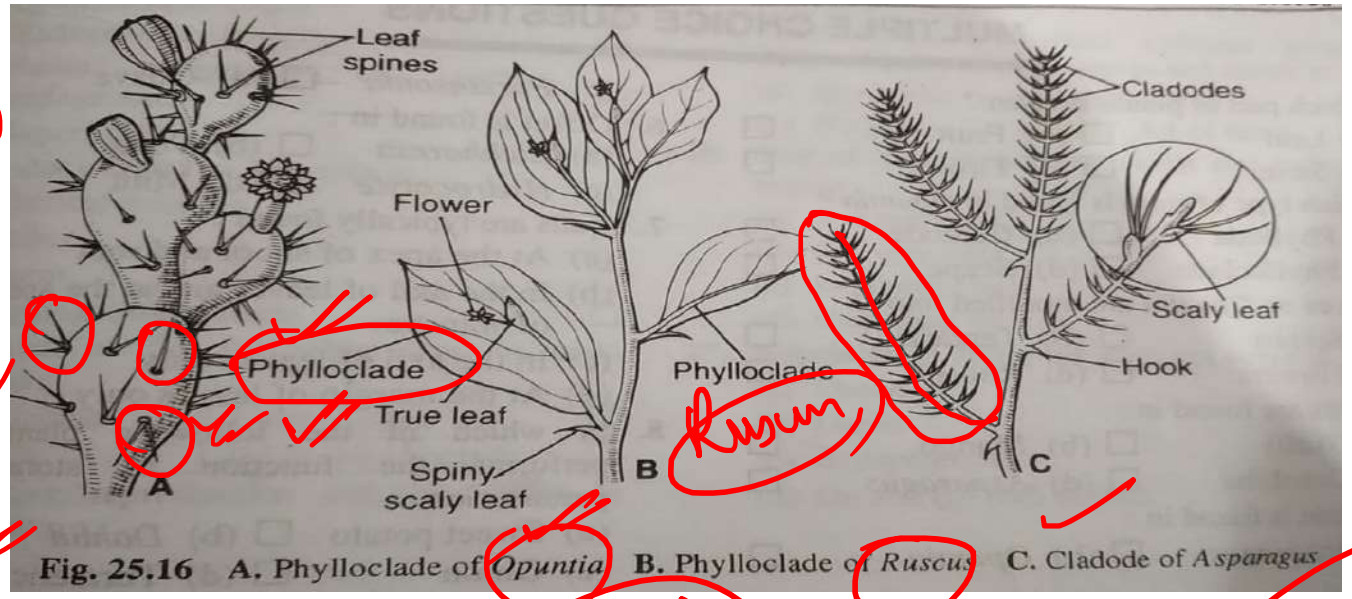


Fig. 25.16 A. Phylloclade of *Opuntia* B. Phylloclade of *Ruscus* C. Cladode of *Asparagus*

Function of Stem

- bears leaves, fruits plus flowers.
- It distributes the nutrients and minerals all the way from the plant to the leaves.
- support system of the plant.
- shields the plant and assists in asexual dissemination.
- The thorns of a stem
- stem takes place upwards allowing leaves to reach the sunlight for photosynthesis.

Leaf Venation

- The arrangement of veins and the veinlets in the lamina of leaf
- When the veinlets form a network, the venation is termed as **reticulate**.
- When the veins run parallel to each other within a lamina, the venation is termed as parallel.
- Leaves of **dicotyledonous** → reticulate venation
- parallel → **monocotyledons**.

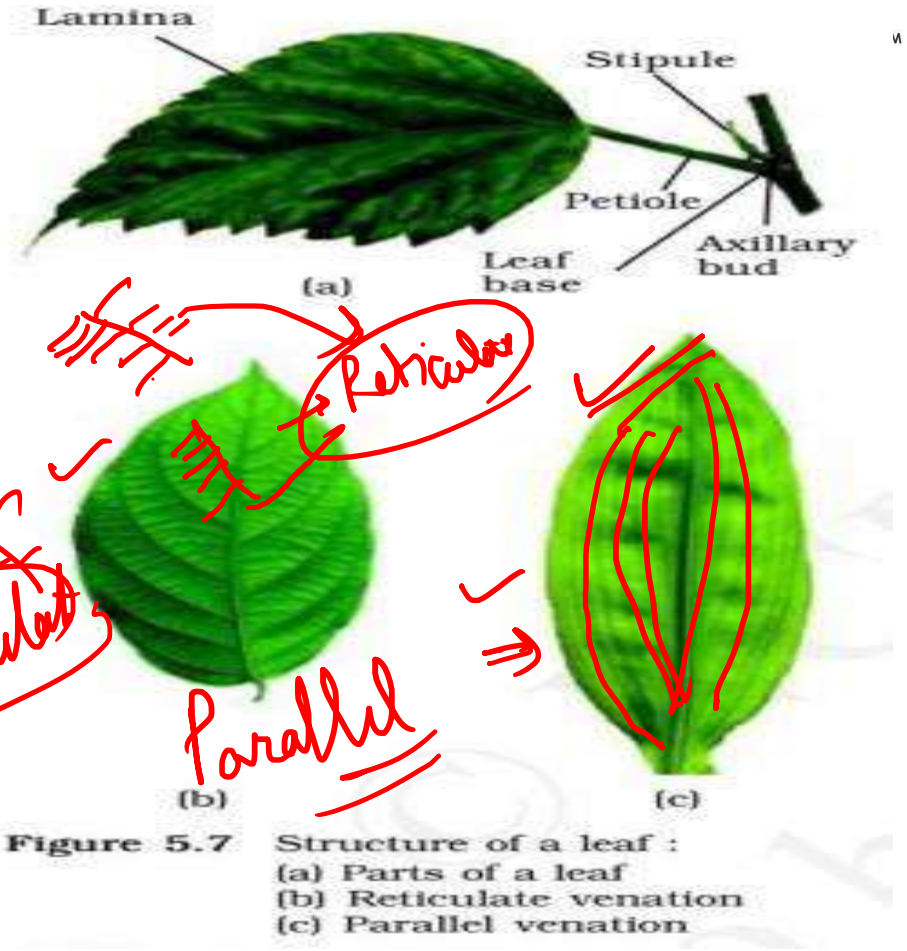


Figure 5.7 Structure of a leaf :
(a) Parts of a leaf
(b) Reticulate venation
(c) Parallel venation

Modifications of Leaves

- Tendrils For Climbing As In Peas Or Into Spines [Thorns] For Defense As In Cacti.
- The Fleshy Leaves Of Onion And Garlic Store Food.
- Leaves Of Certain Insectivorous Plants Such As Pitcher Plant, Venus-fly Trap Are Also Modified Leaves.

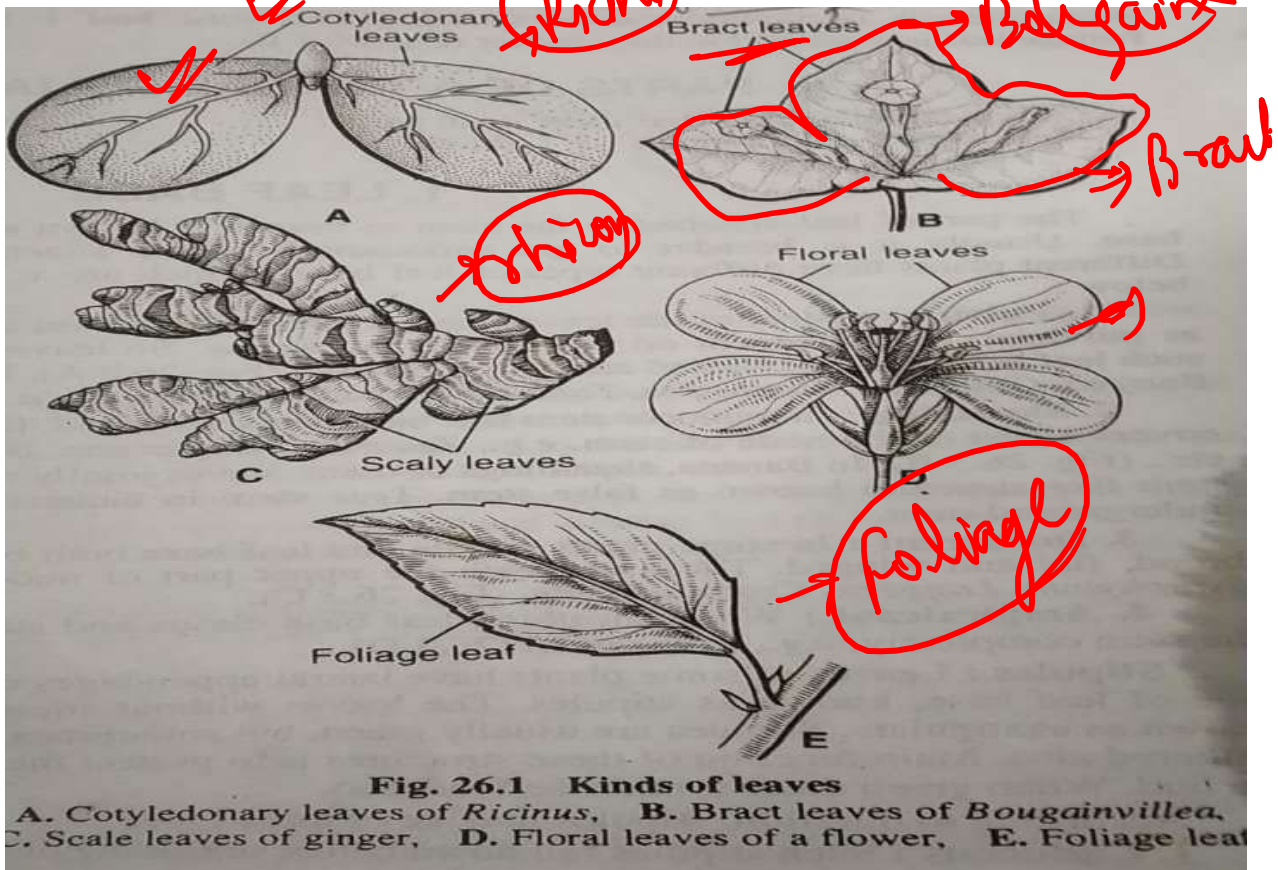


Fig. 26.1 Kinds of leaves
A. Cotyledonary leaves of *Ricinus*, B. Bract leaves of *Bougainvillea*, C. Scale leaves of ginger, D. Floral leaves of a flower, E. Foliage leaf

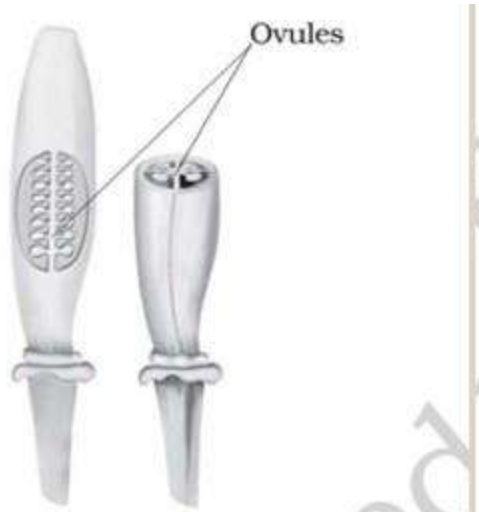
The Flower

- The flower is the reproductive unit in the **angiosperms**.
- It is meant for sexual reproduction → Androecium and gynoecium
- When a flower has both androecium and gynoecium, it is **bisexual**.
- A flower having either only **stamens or only carpels** is **unisexual**.

Aestivation:

- The mode of arrangement of sepals or petals in floral bud with respect to the other members of the same whorl is known as aestivation.

Fig. 7.24 *Parts of a pistil*



Inner structure of an ovary (a) longitudinal cut, (b) transverse cut

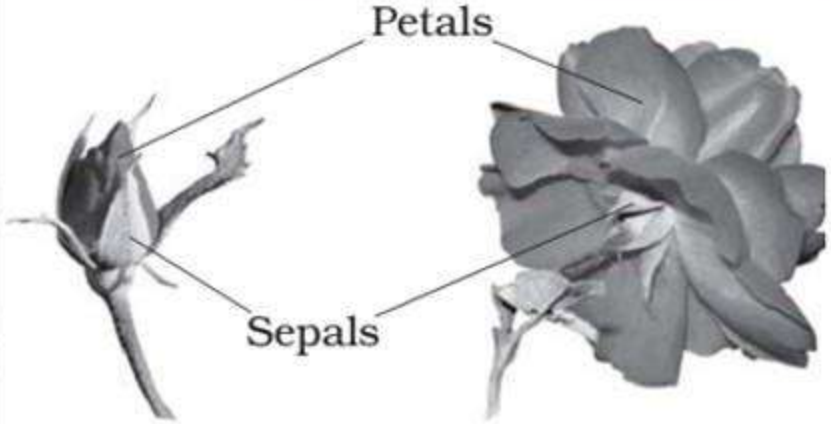


Fig. 7.20 *Bud and flower*

Fig. 7.21 *A bell shaped flower*

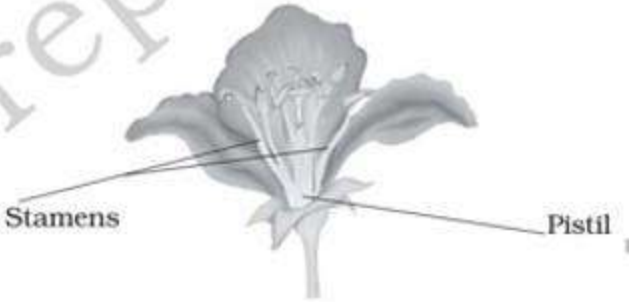
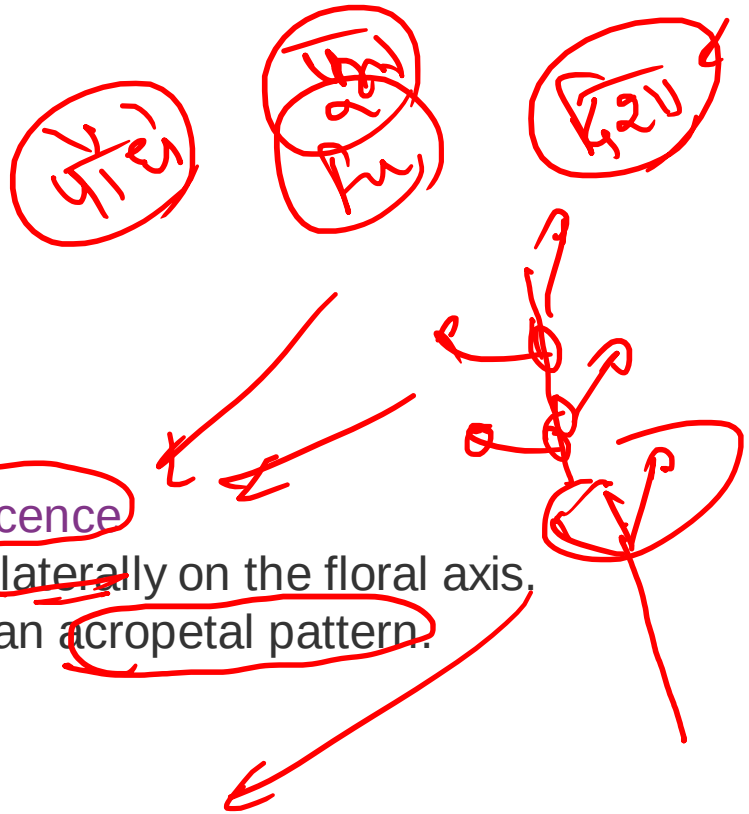


Fig. 7.22 *Parts of a flower*

Fig. 7.23 *Parts of a stamen*



Racemose Inflorescence

the flowers branch laterally on the floral axis,
flowers develop in an acropetal pattern.

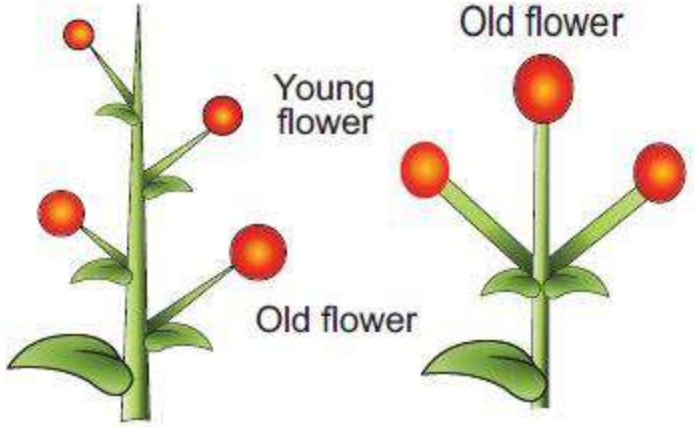


Figure 4.2: (a) Racemose

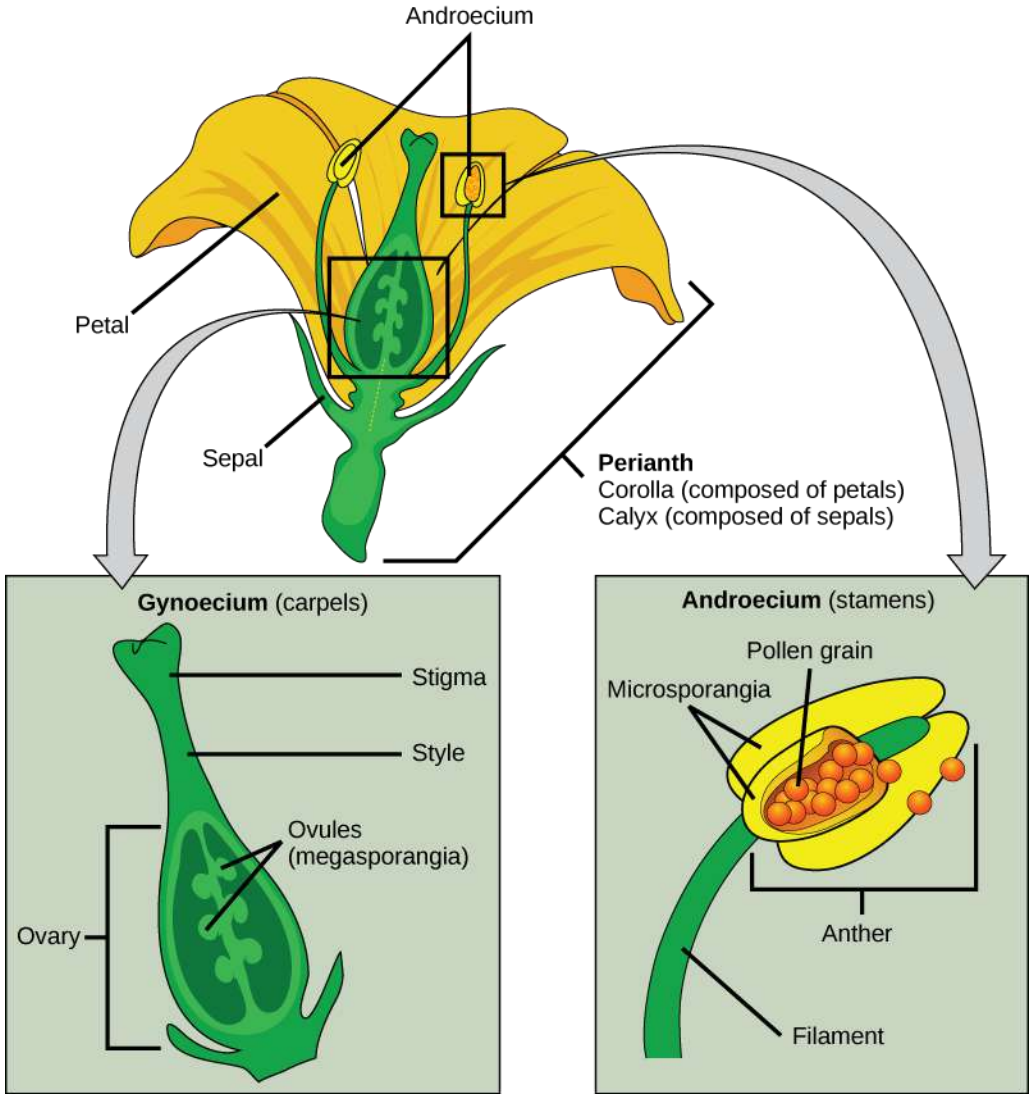
Figure 4.2: (b) Cymose inflorescence

Cymose Inflorescence

the flower is the terminating point of each floral axis.

Androecium

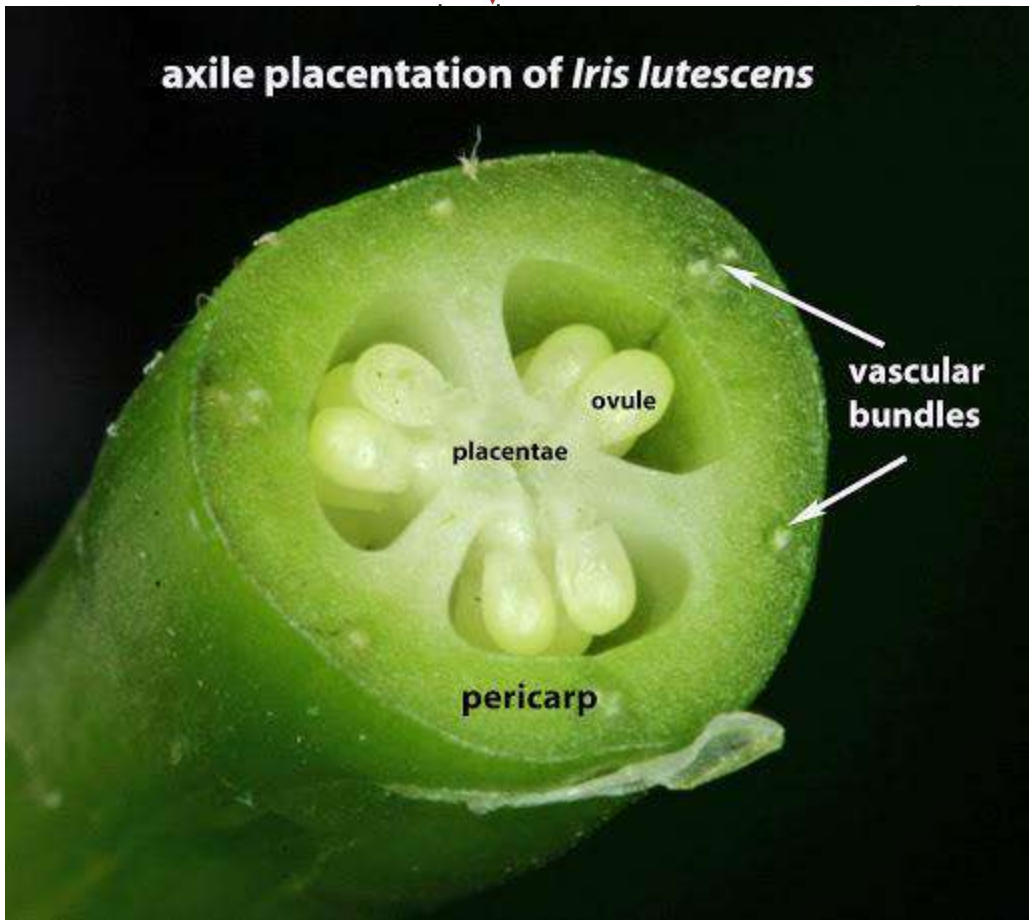
- Androecium is composed of **stamens**.
- Male reproductive organ → stalk or a filament and an anther.
- Each anther is usually bilobed and each lobe has two chambers, the pollen-sacs.
- The pollen grains are produced in pollen-sacs.
- A sterile stamen is called **staminode**.



Gynoecium

- Made up of one or more carpels.
- A carpel consists of three parts namely stigma, style and ovary.
- After fertilization,
- ovules → seeds and the ovary → a fruit.

•**Placentation:** arrangement of ovules within the ovary



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एक महीने का सब्सक्रिप्शन

बिल्कुल फ्री

13 घंटे की मैराथन
LIVE क्लास इस रविवार

ऑफर (17-19 दिसंबर) के लिए मान्य

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- 100+ टॉपिक टेस्ट & मॉक टेस्ट
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