

# FLOWER



# FLOWER

- Flower is one of the part of the plant.
- It is the *Reproductive* part.
- It is the beautiful and colourful part of the flower.



# FLOWER



➤ The biological function of a flower is to facilitate reproduction, usually by providing a mechanism for the union of sperm with eggs.



## SMALLEST FLOWER

World's smallest  
flower is *Wolffia*



LARGEST FLOWER

World's largest  
flower is  
*Rafflesia*





# PARTS OF FLOWER

There are 4 parts in a flower. They are

☐ Calyx

☐ Corolla

☐ Androecium

☐ Gynoecium

# CLASSIFICATION OF PARTS

There are 2 classification of flower parts. They are

- *Non-essential part*

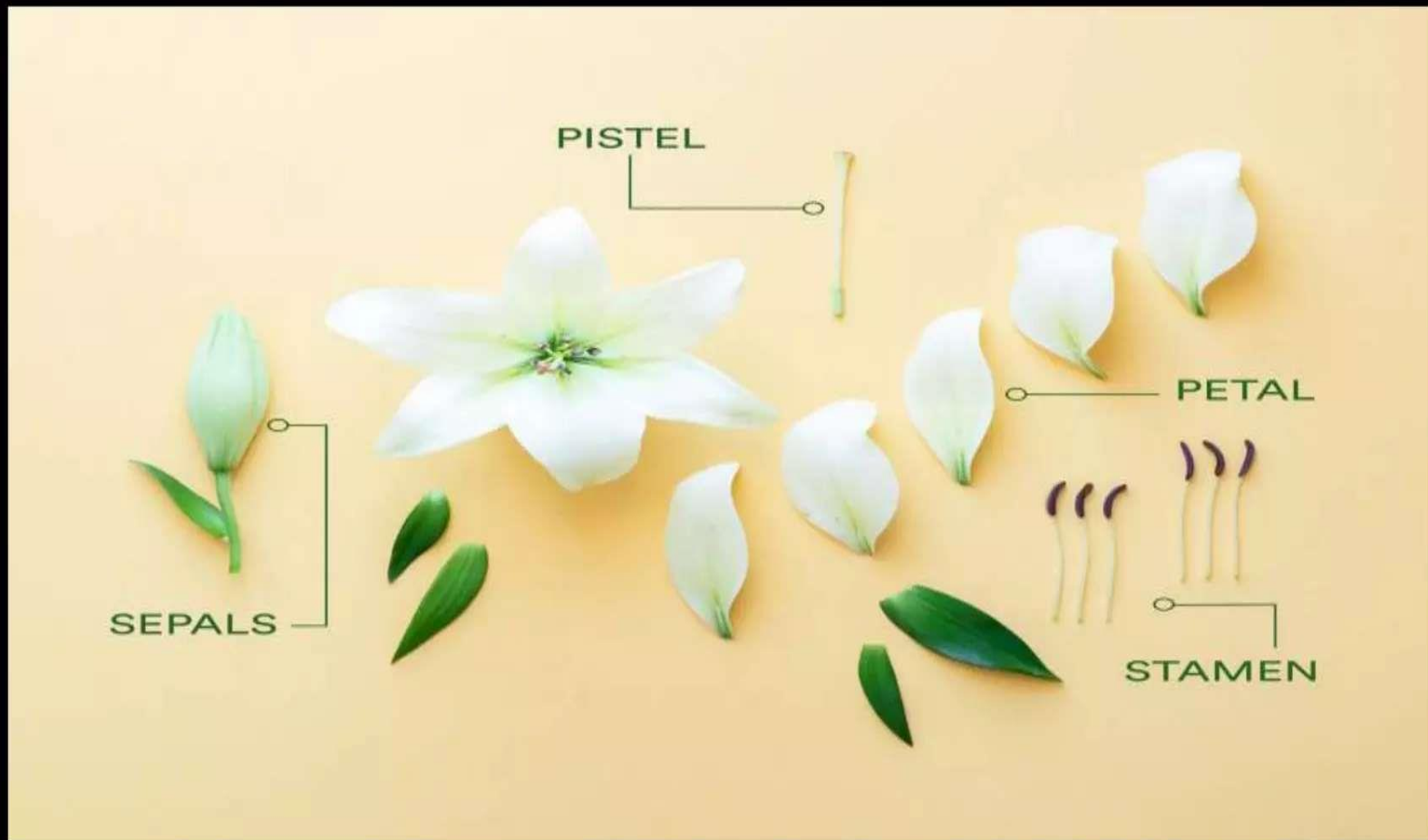
- Calyx
- Corolla

- *Essential part*

- Androecium
- Gynoecium



# PARTS OF FLOWER





# PARTS OF FLOWER

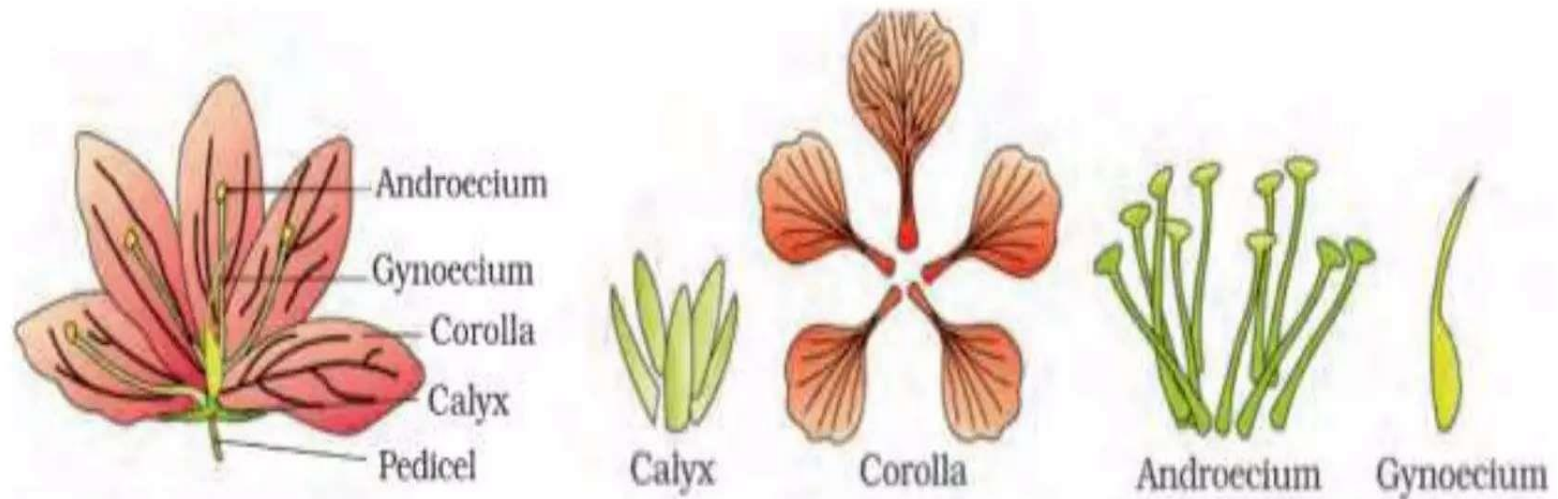
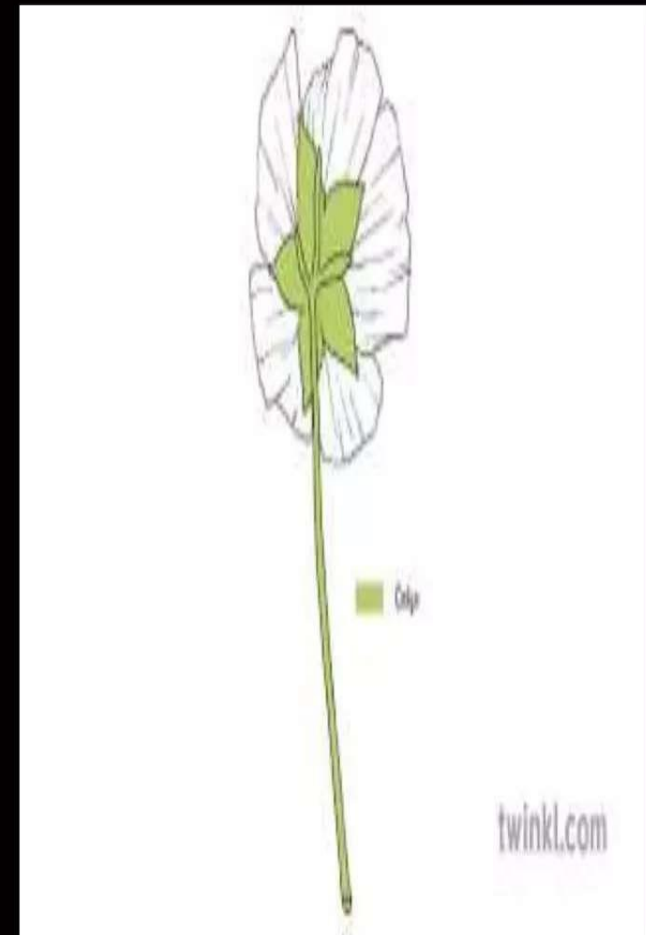


Fig: Parts of a Flower

# CALYX

- ✓ Calyx is the outermost whorl of the flower.
- ✓ The separate unit of calyx is called *sepal*.
- ✓ It is almost green in colour.
- ✓ It is a non essential part of the flower.



# PETALOID

In some flowers the calyx is brightly coloured, it is known as petaloid.





# TYPES OF CALYX

There are 2 types of calyx. They are

- ❖ Polysepalous

- ❖ Gamosepalous



# POLYSEPALOUS

In some flowers the petals are free, such type is called polysepalous.

Eg. Rose



# GAMOSEPALOUS

In some flowers the sepals are fused, such type is called gamosepalous.

Eg. Datura



# COROLLA

- ✓ It is the second whorl of the flower.
- ✓ It is a non-essential part.
- ✓ The individual part of the corolla is known as petals.
- ✓ It is variously coloured.





# TYPES OF FLOWER BASED ON PETALS

There are 3 types of flower based on the petals.  
They are

- Polypetalous
- Gamopetalous
- Apetalous



# POLYPETALOUS

When the petals are free,  
such flowers are called as  
polypetalous flower.

Eg. rose



# GAMOPETALOUS

Flowers having fused or united petals, such type is called gamopetalous.

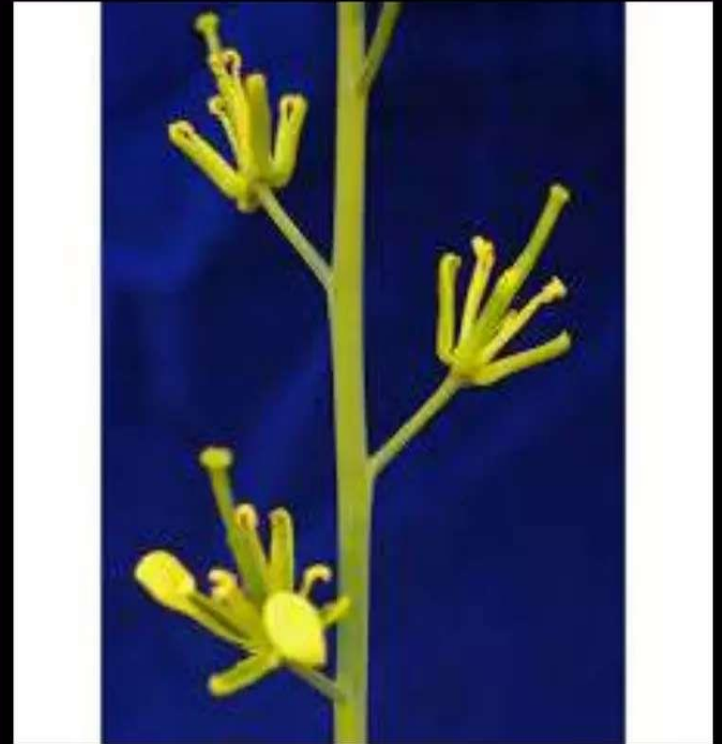
Eg. Hibiscus, Datura



# APETALOUS

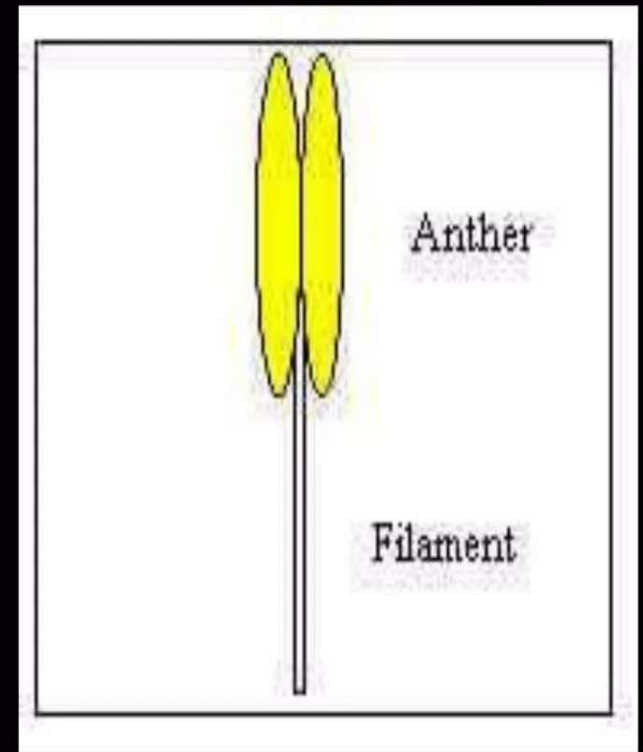
In some rare flowers the petals are absent, such flowers are called apetalous.

Eg. *Brassica rapa*



# ANDROECIUM

- ✓ It is the third whorl of the flower.
- ✓ It is the essential part of the flower.
- ✓ The separate unit is known as stamen.
- ✓ It is the male reproductive part.
- ✓ It has a powdery substance in it called pollen grains, which is responsible for the pollination of flower.





# PARTS OF ANDROECIUM

The stamen has 2 parts. They are

❑ **Anther** – It is the head part of the stamen, in which the powdery substance called pollen grains are present which plays major role in pollination of the flowers.

❑ **Filament** – It is the stalk which holds the anther.

# GYNOECIUM

- ✓ It is the innermost whorl of the flower.
- ✓ It is an essential part of the flower.
- ✓ The separate unit is called carpel.
- ✓ It is the female reproductive part.
- ✓ After fertilization it develops into the fruit.

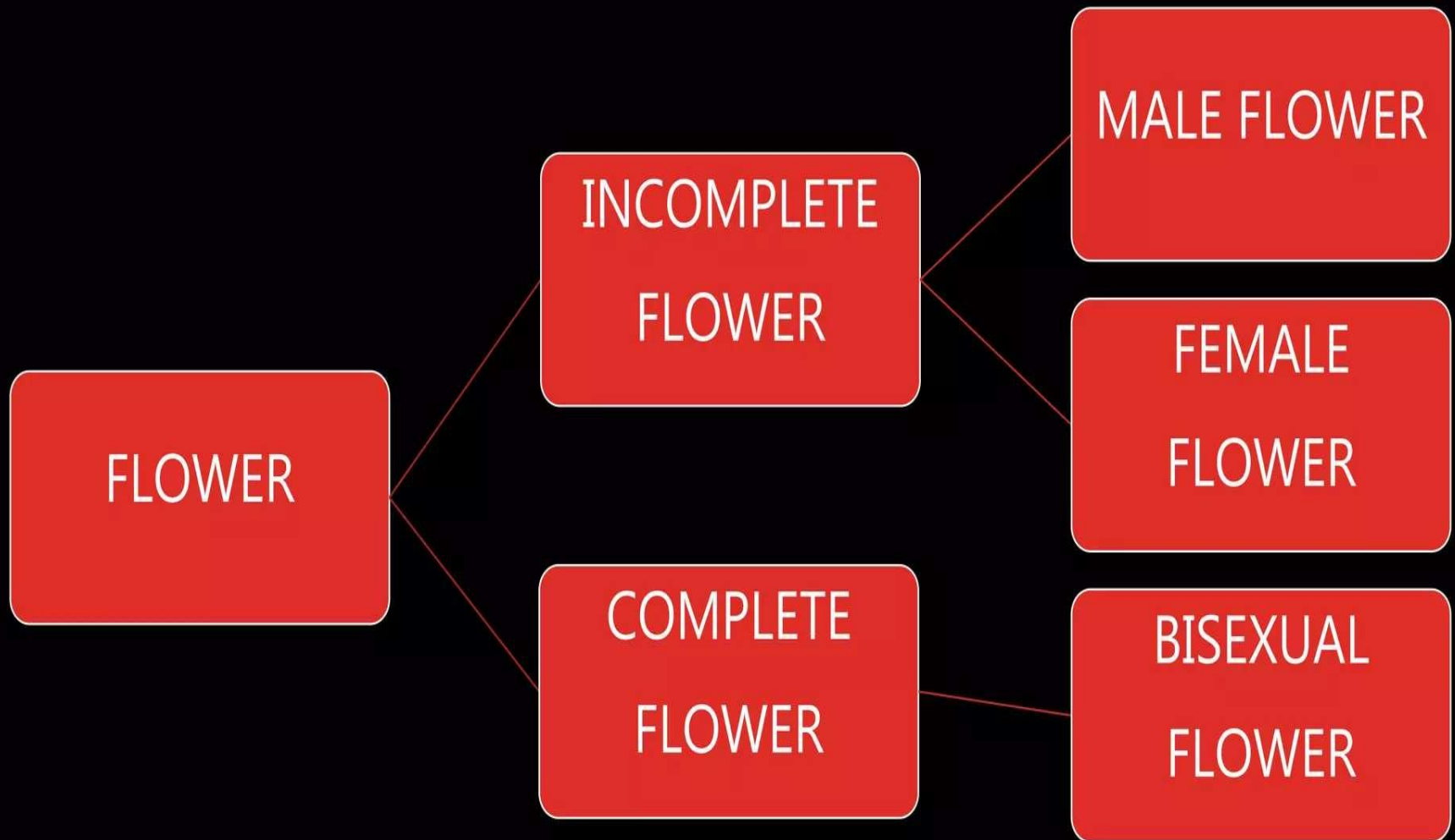


# PARTS OF GYNOECIUM

It has three parts namely,

- ❑ Stigma – It is the top part of the carpel and it is sticky. The pollen grains carried by the pollinators are stick in it.
- ❑ Style – It is a tube in which the sperm cell enters and reaches the ovary.
- ❑ Ovary – It is the main part where the fertilization of sperm and eggs are happened. The ovary produces the eggs for fertilization. The ovary has an ovary wall and ovules. After fertilization the ovary develops into fruit, the ovary wall develops into the outer coat of the fruit and the ovules developed into the seeds.

# TYPES OF FLOWER





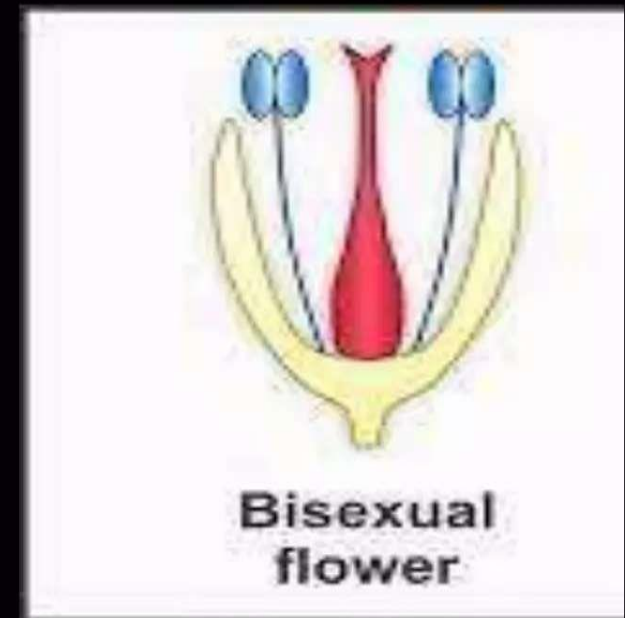
# TYPES OF FLOWER

Based on the parts of the flowers, it can be classified into two types. They are

- *Complete flower* – The complete flower has all the 4 whorls in it (i.e. calyx, corolla, androecium and gynoecium are present). Most of all the *bisexual flowers* are complete flowers.
- *Incomplete flower* – The incomplete flower does not have all the 4 whorls i.e., any of the part is absent. All the *unisexual flowers* are incomplete flower. The unisexual flower has any one of the reproductive part (i.e., either androecium or gynoecium is present)

# COMPLETE FLOWER – BISexual FLOWER

In the bisexual flower both the reproductive part is present. i.e., *androecium* and *gynoecium* present in the same flower.



# INCOMPLETE FLOWER – UNISEXUAL FLOWER

- Unisexual flowers are 2 types. They are,
  - ❖ Male flower – In male flower androecium is present and gynoecium is absent. Otherwise known as *staminate flower*.
  - ❖ Female flower – In female flower gynoecium is present and androecium is absent. Otherwise known as *pistillate flower*.

