

# UPDAAN



## 2025

### How Do organisms Reproduce ?

Biology

Lecture - 05

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# Topics to be covered

- 1 Sexual Reproduction in flowering plants
- 2 MCQ practice and Homework





## QUESTION

A-3 B-1 C-2 D-4

Q-1



Match the words in column-I with those which are most appropriate in column-II.(Re)

A A-4, B-1, C-3, D-2

☒ B A-3, B-1, C-2, D-4

C A-2, B-3, C-4, D-1

D A-1, B-4, C-3, D-2

|      | Column-I        |      | Column-II       |
|------|-----------------|------|-----------------|
| A. ✓ | <i>Hydra</i>    | 1. ✓ | Binary fission  |
| B. ✓ | <i>Amoeba</i>   | 2. ✓ | Spore formation |
| C. ✓ | <i>Rhizopus</i> | 3. ✓ | Budding         |
| D. ✓ | <i>Planaria</i> | 4. ✓ | Regeneration    |

## QUESTION

Q.2



Choose the correct order of the stages of binary fission in *Leishmania*.

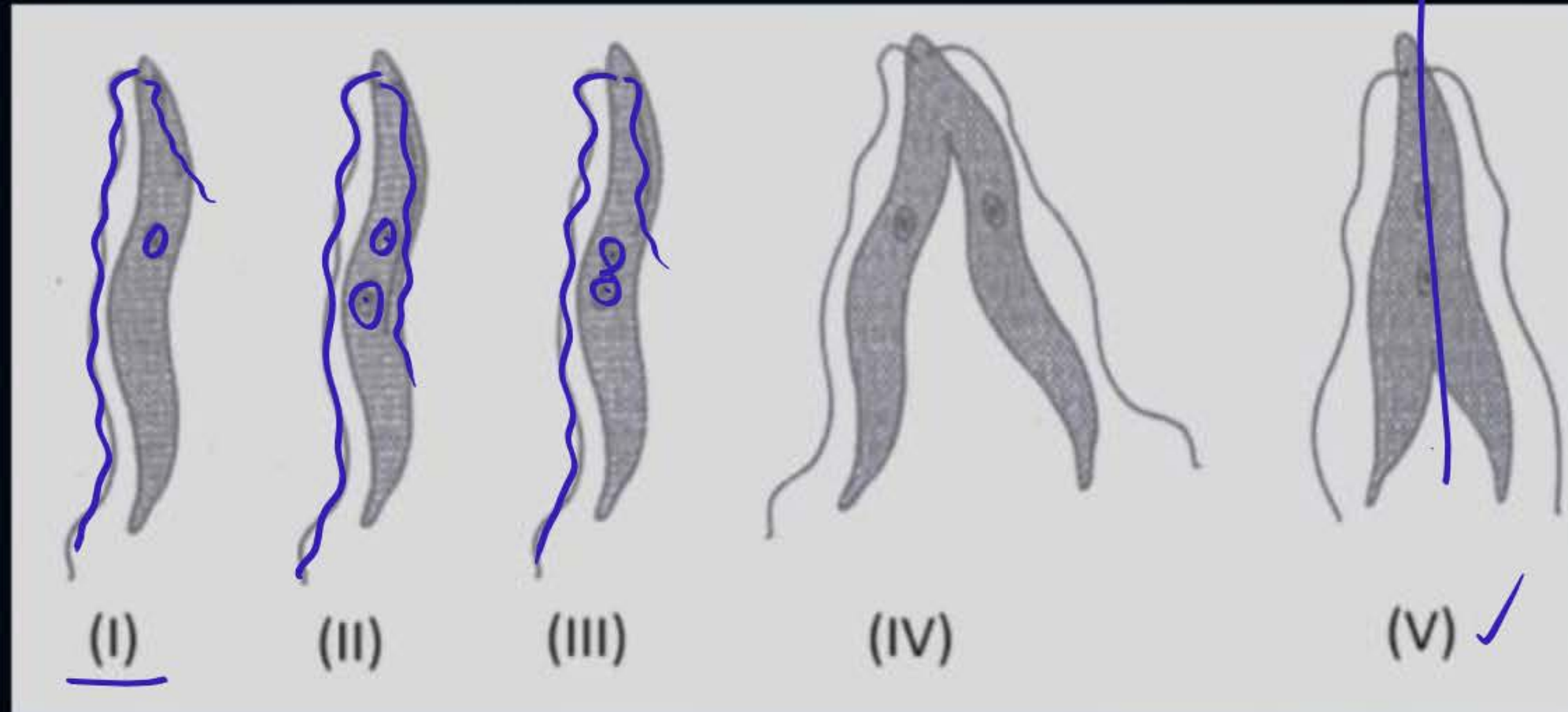
(Re) (CBSE, 2023)

A I, II, III, IV, V

☒ B I, III, II, V, IV

C I, III, V, II, IV

D I, II, III, V, IV



PYA



## QUESTION

Q.3



In a biology lab, the teacher set up a slide showing binary fission in an Amoeba, but the stages were in the incorrect order as shown below. Carefully observe the image provided and choose the option showing the correct order. (Re) ✓✓

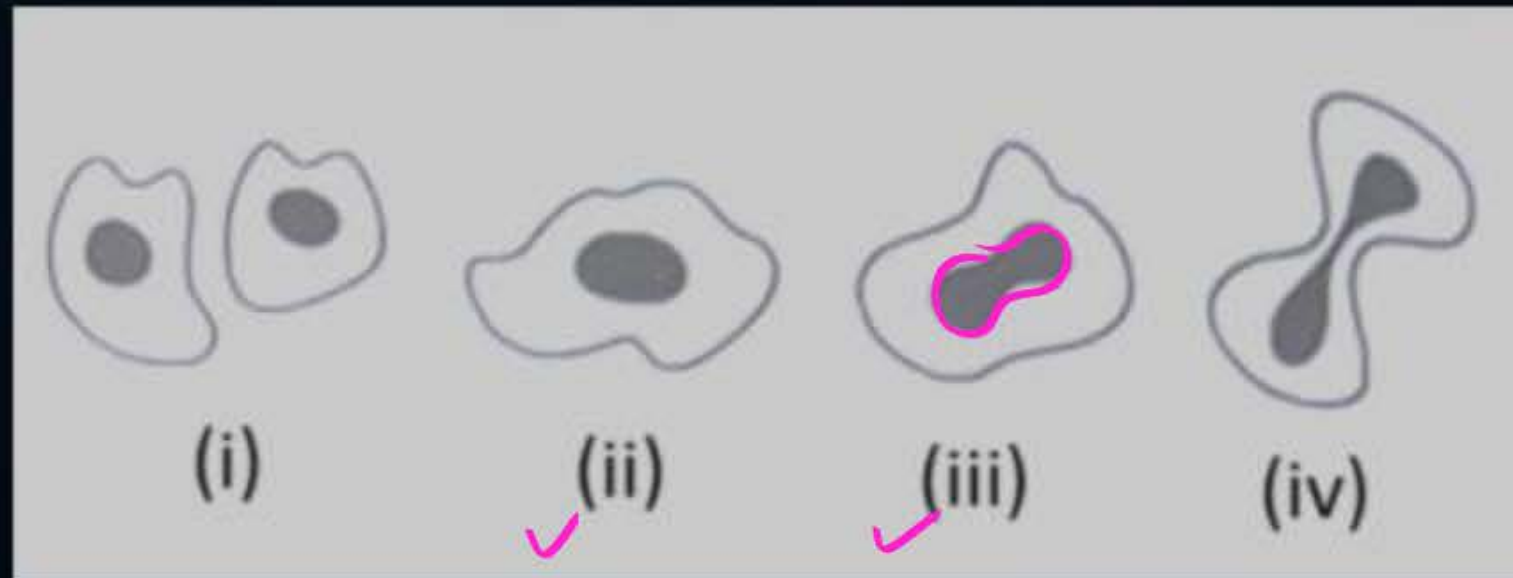
(ii), (iii), (iv), (i)

A (i), (iii), (iv) and (ii)

B ✓✓ (ii), (iii), (iv) and (i)

C (iv), (iii), (ii) and (i)

D (iii), (iv), (ii) and (i)







## SEXUAL REPRODUCTION IN ORGANISMS

Gamete formation  
(Gametogenesis)

Gamete transfer

FERTILISATION

Formation of zygote

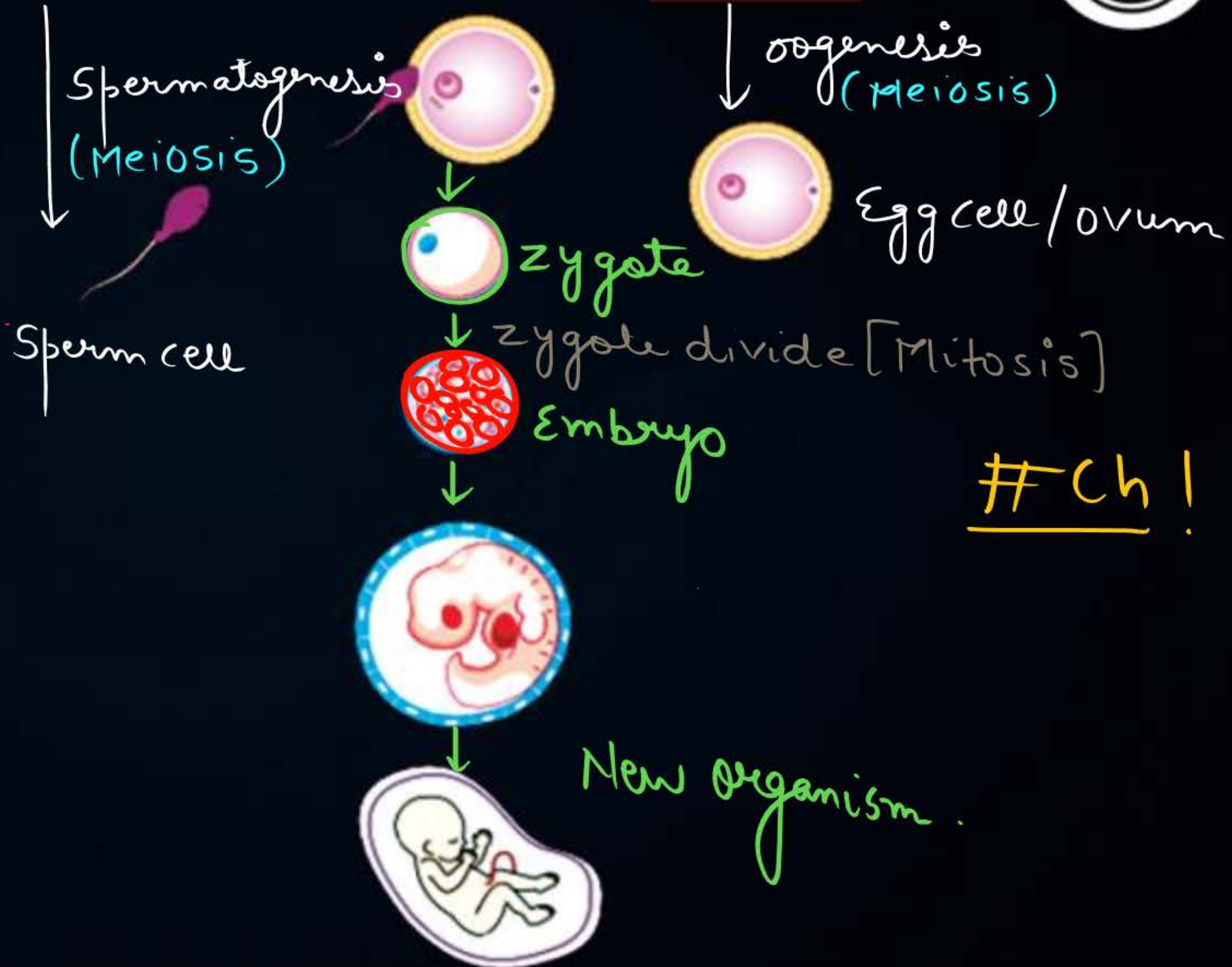
Development to zygote into  
embryo

Growth and Development of  
embryo in to whole new  
organism ✓

Males

Fertilisation

Females



Which of the following occurs before fertilisation ?

- ☐ A Zygote formation ✗
- ☒ B Gametogenesis → formation of gamete
- ☐ C Development of embryo ✗
- ☐ D Both B and C

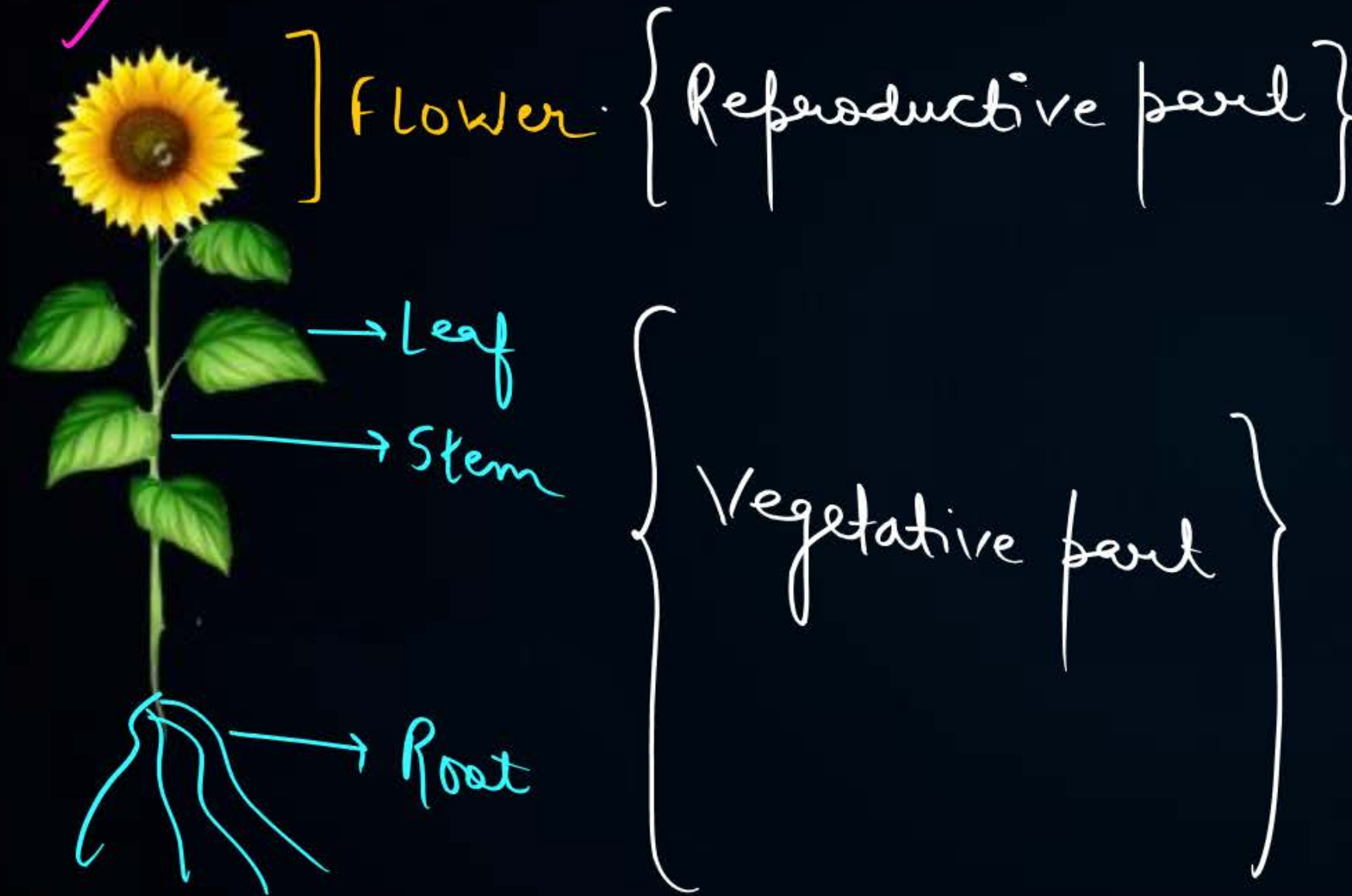






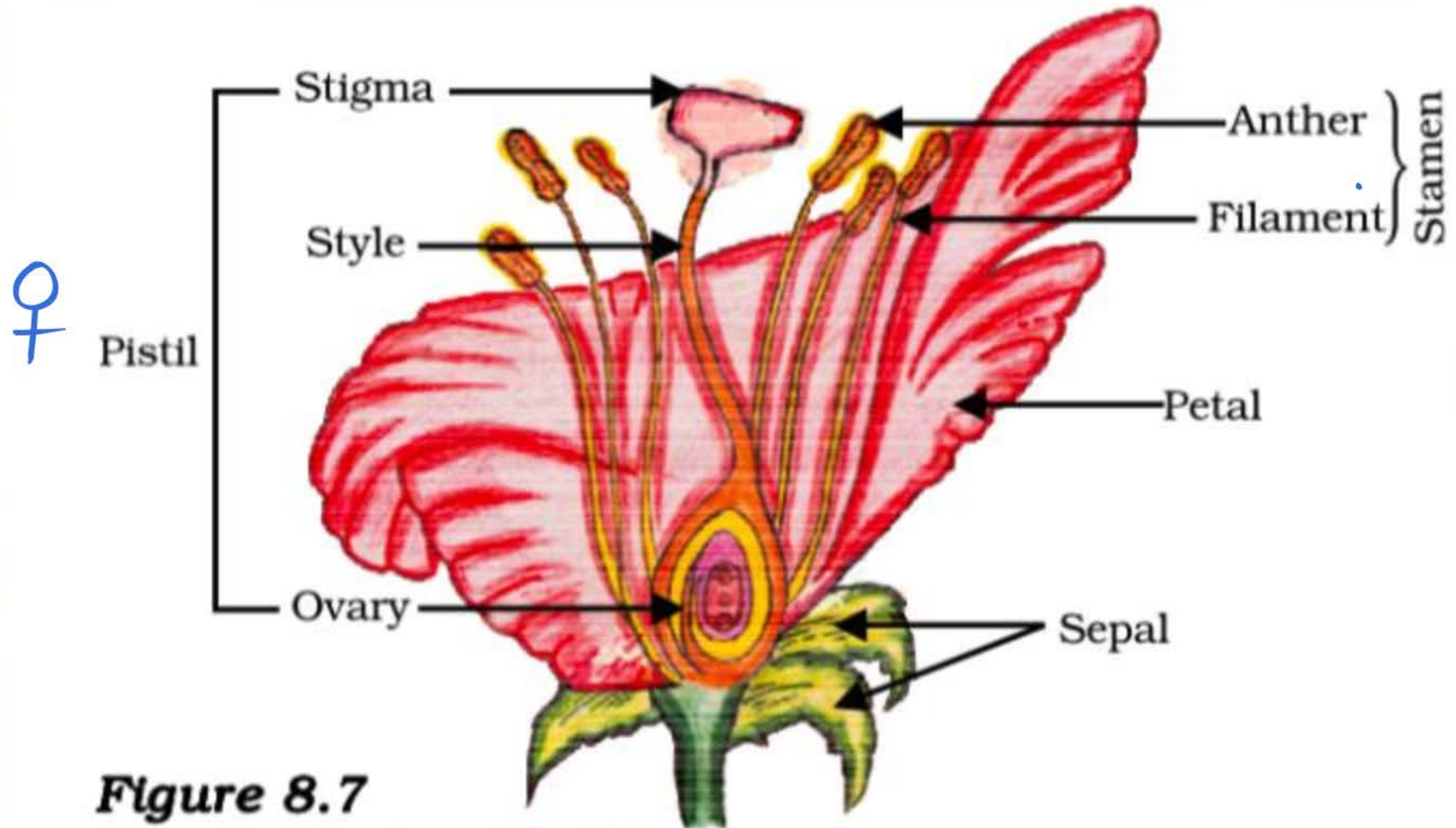
# Sexual reproduction in flowering plants

Angiosperms





# Parts of a Flower



**Figure 8.7**

*Longitudinal section of*





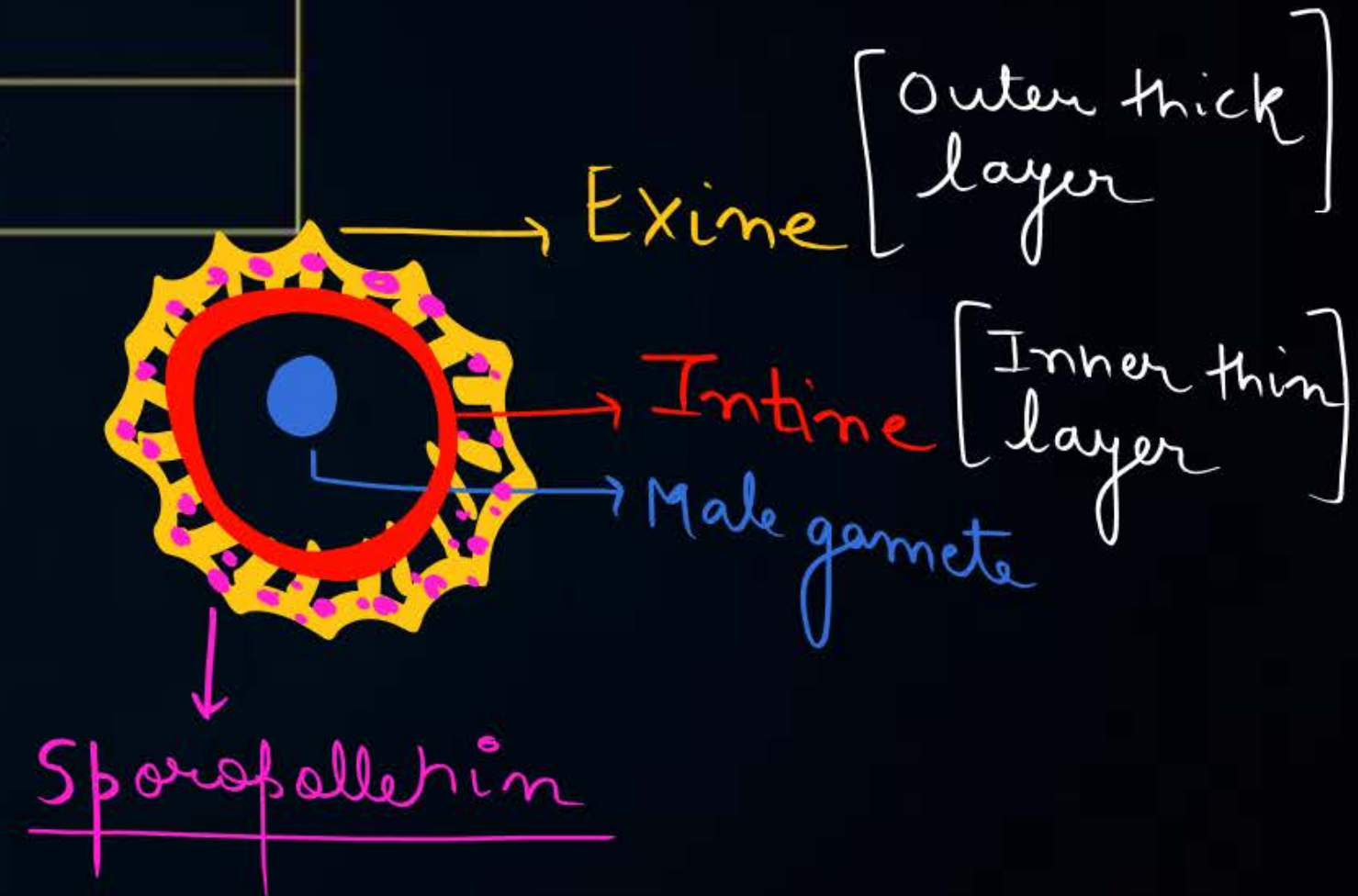
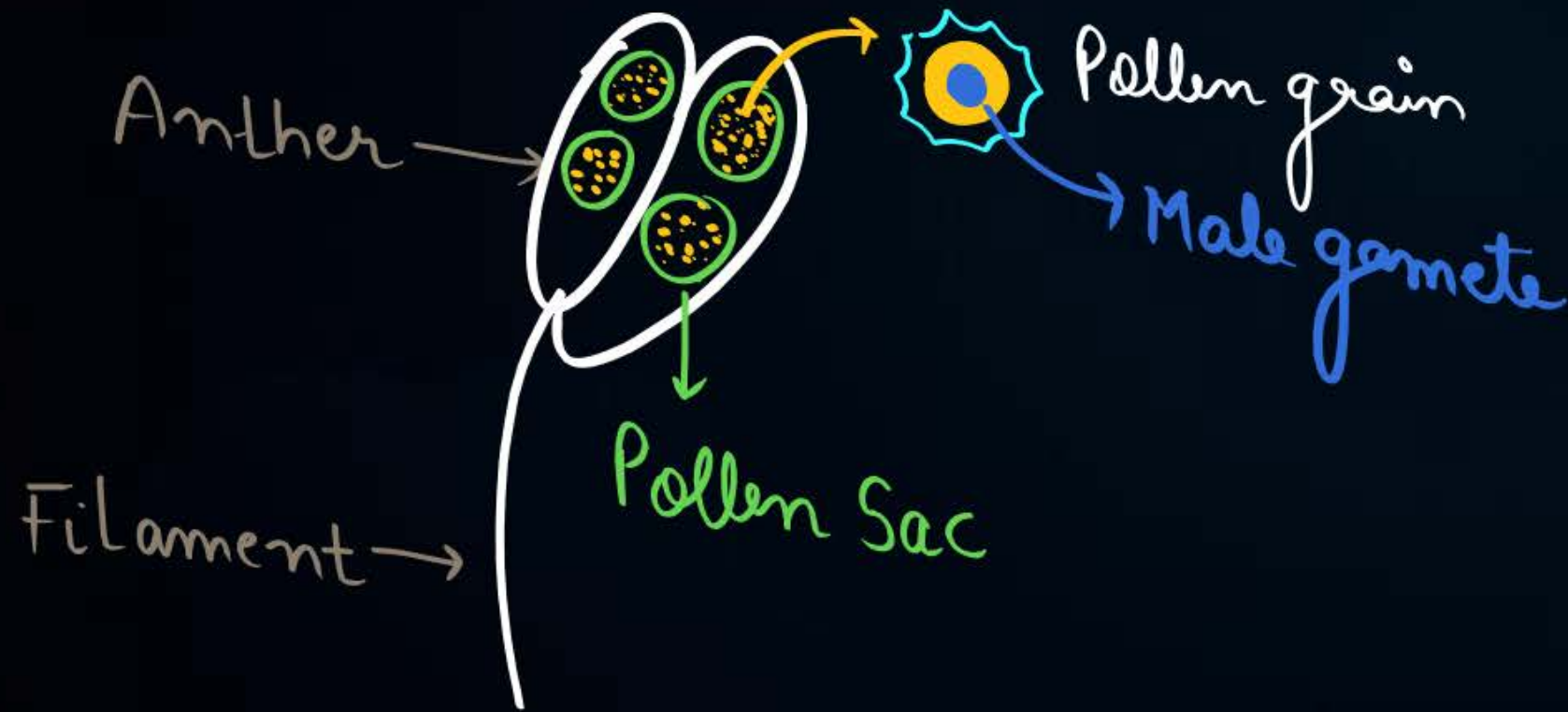
| Parts of the flower | Functions  |
|---------------------|--|
| ✓ Sepals (Calyx)✓   | Usually green and provide protection to flowers during the <u>bud</u> stage.                     |
| Petals (Corolla)✓   | ✓ Brightly coloured and have a strong <u>fragrance</u> to attract pollinators. {insects & birds} |



# Stamen / Androecium / Male Reproductive Organ

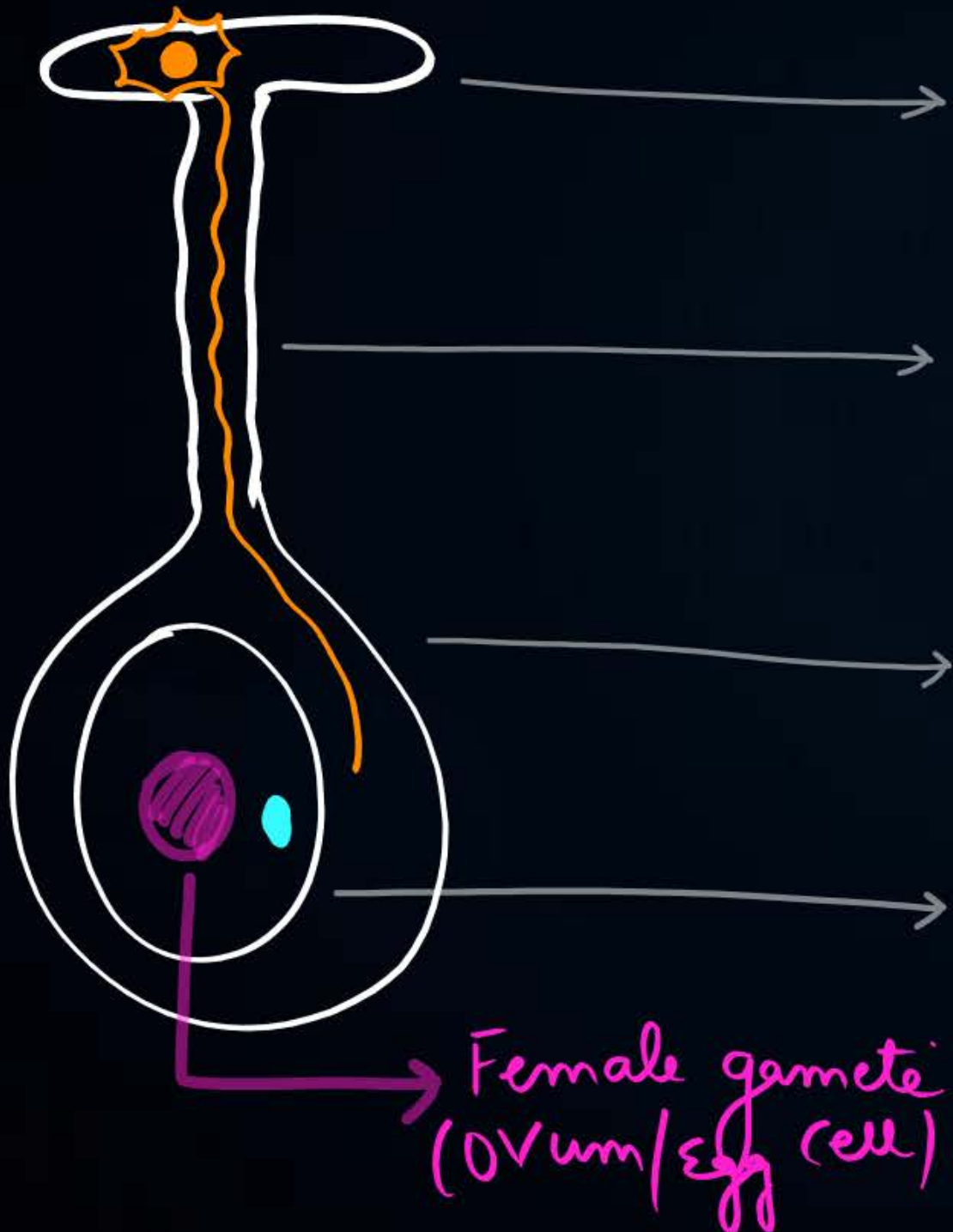


|            |  |
|------------|--|
| ① Anther   | Produces pollen grains which consists of male gametes. |
| ② Filament | It forms the stalk that bears anther                   |





# Pistil/Carpel / Gynoecium / Female Reproductive Organ



|        |   |
|--------|---|
| Stigma | Receives pollen grains during pollination due to their <u>sticky</u> nature.                              |
| Style  | Elongated structure, connects stigma and ovary, Pollen tube travels through the style to reach the ovule. |
| Ovary  | Basal swollen part of pistil, converts into <u>fruit</u> after fertilisation                              |
| Ovule  | Present inside ovary, Consist of female gametes, <u>site of fertilisation</u>                             |

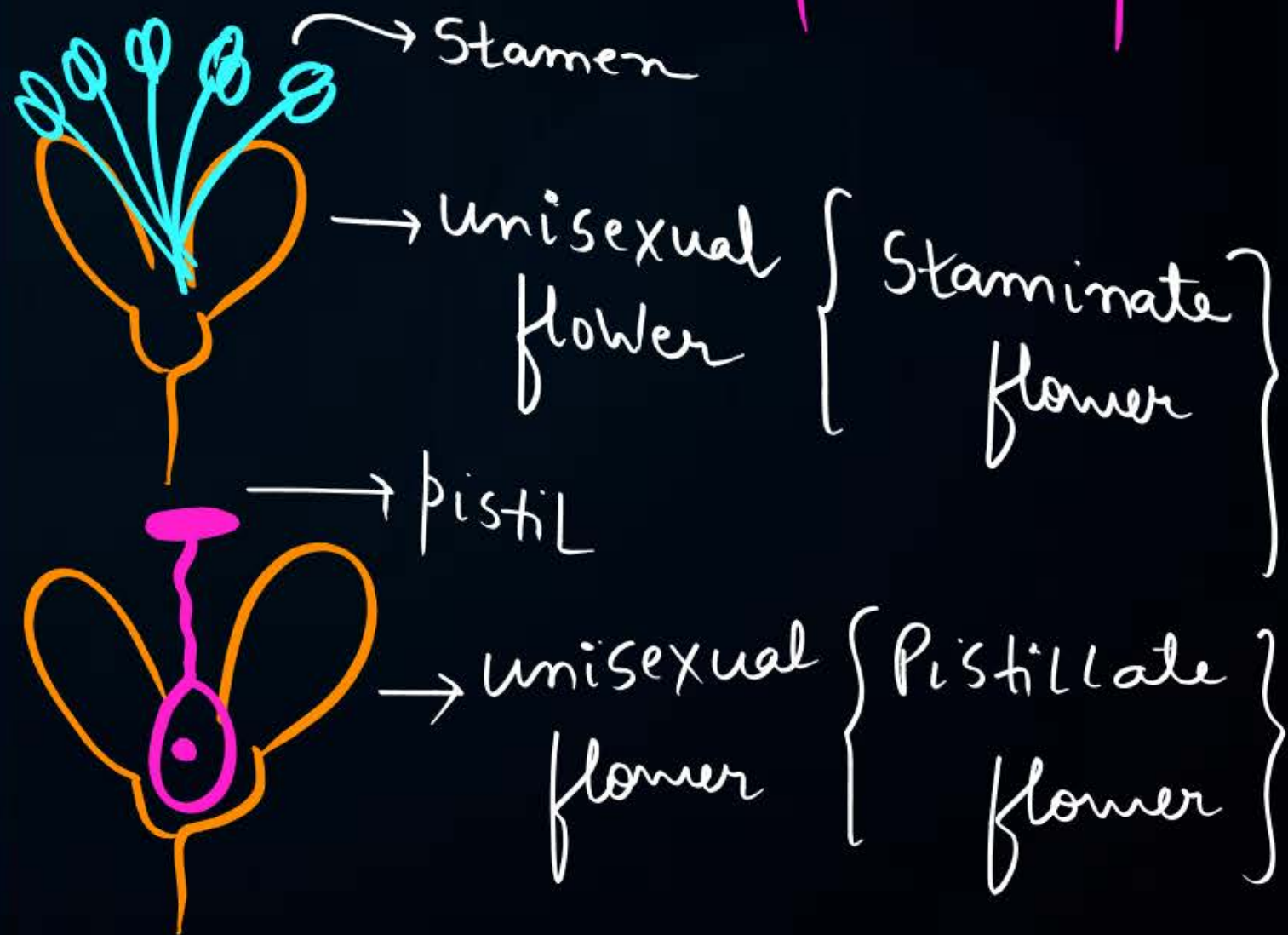
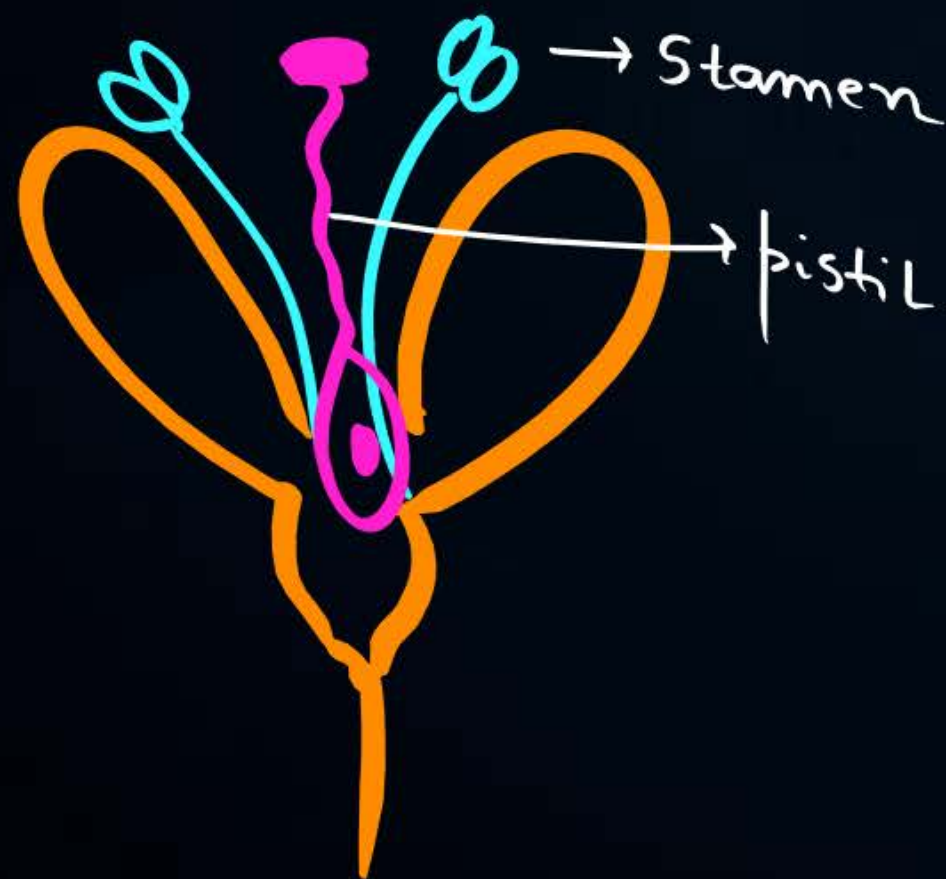


# Types of flower

## Bisexual flower

## Unisexual flower

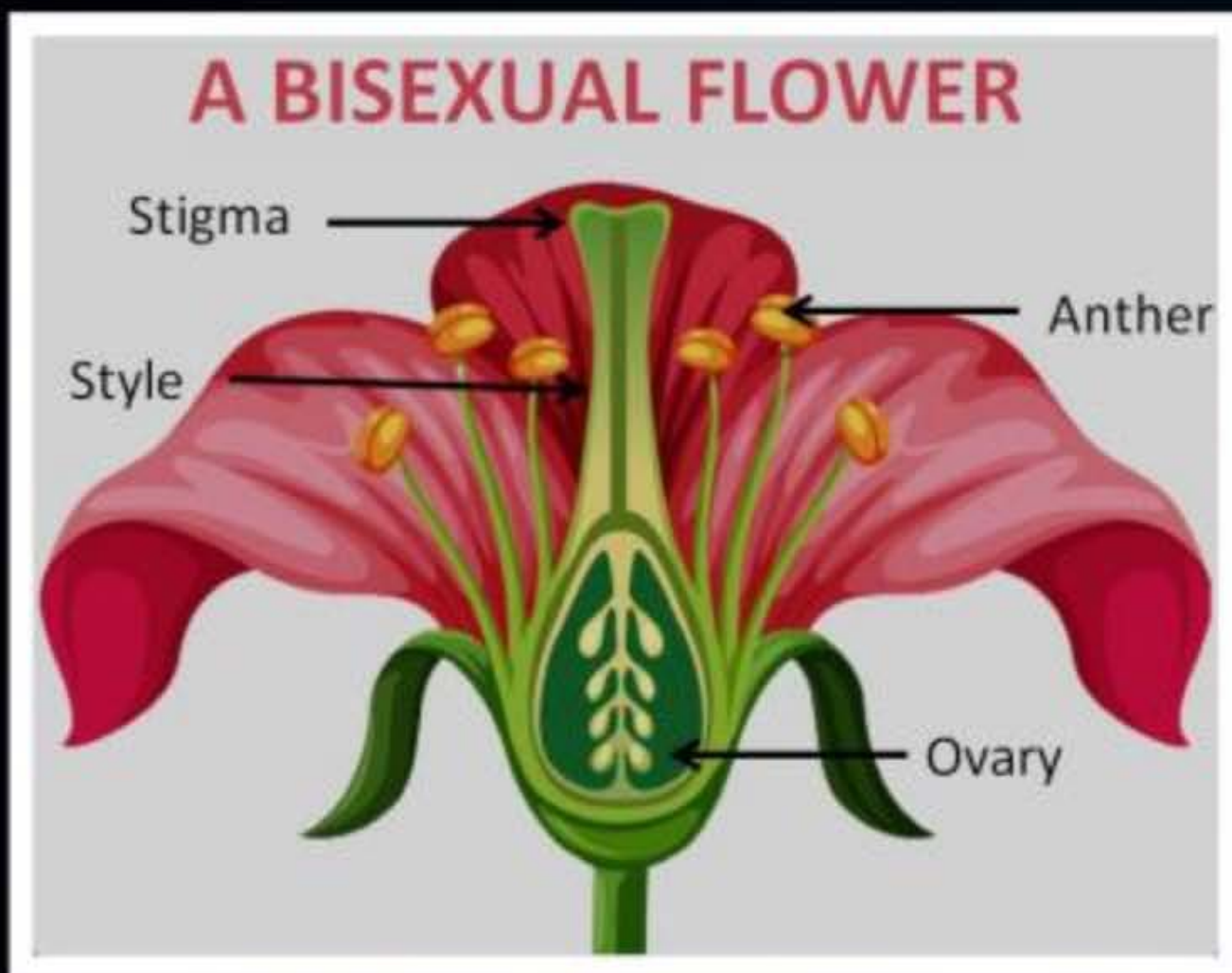
→ Contain both Stamen & pistil → Either Stamen or pistil is present.



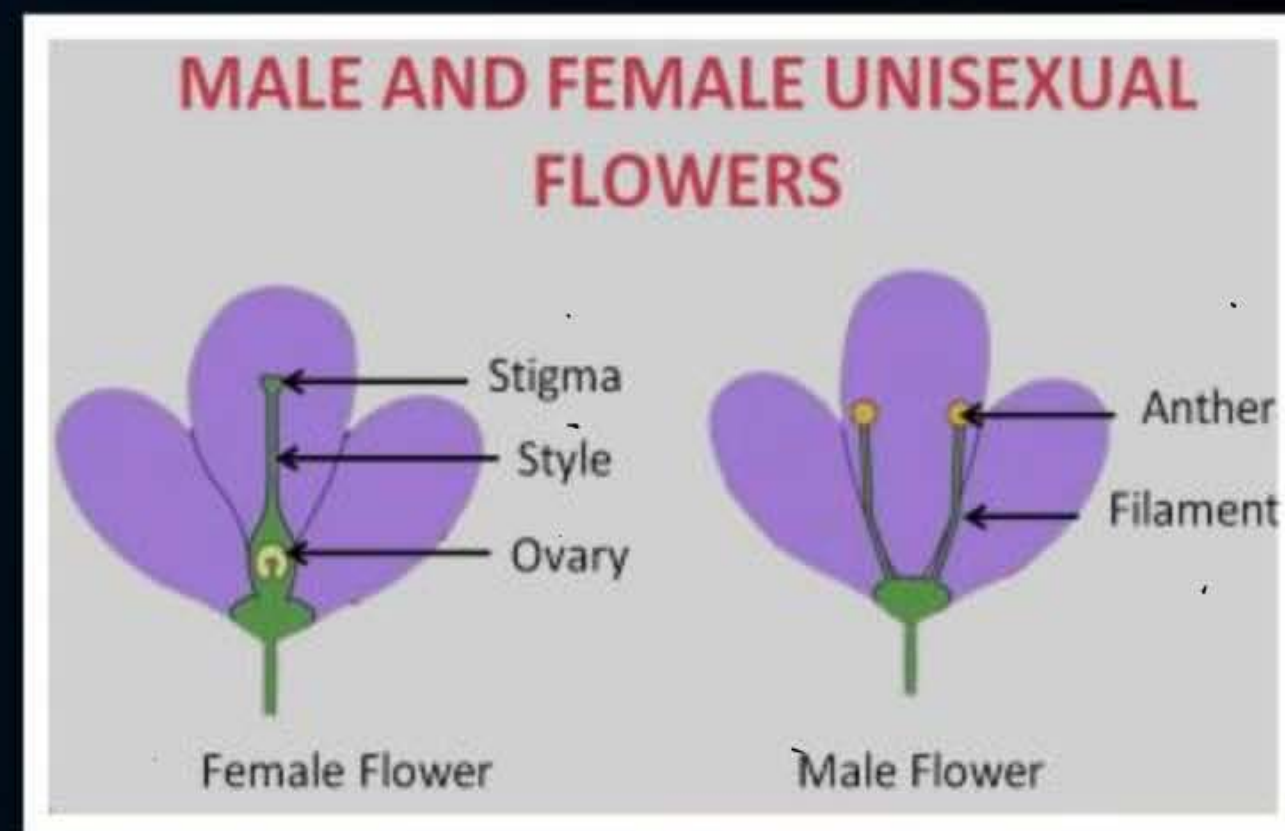


# Types of flower

## Bisexual flower



## Unisexual flower



- Pistillate flower
- Staminate flower

When Someone ask what was

Example of a bisexual flower







# Types of flower

## Bisexual flower

- ✓ Rose
- Hibiscus [China Rose]
- Mustard
- pea
- ✓ Tomato → Bade Mazedar!
- Brinjal → Bisexual
- Mango
- Sunflower
- Tulip

## Unisexual flower

- Papaya
- Watermelon
- ✓ Coconut
- ✓ Cucumber
- ✓ Maize
- ✓ Castor bean
- ✓ Musk melon

PW



Identify the following type of flower



- ☐ A Staminate flower
- ☐ B Pistilate flower
- ☒ C Bisexual flower
- ☐ D None of these



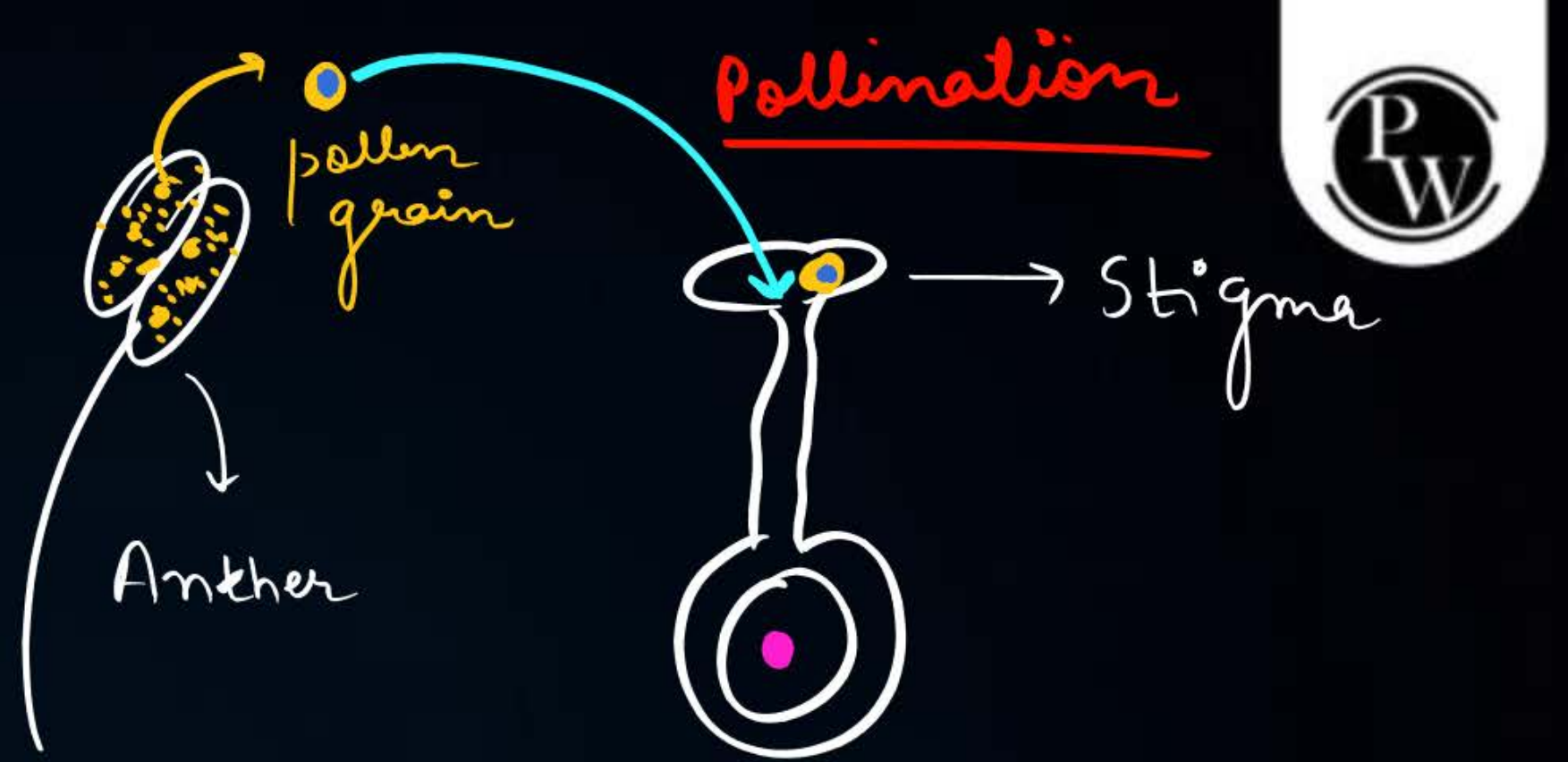
Which of the following is an example of bisexual flower ?

- A Papaya ✗
- B Watermelon ✗
- C Hibiscus ✓
- D Coconut ✗



# Pollination

Transfer of pollen grains  
from anther to Stigma

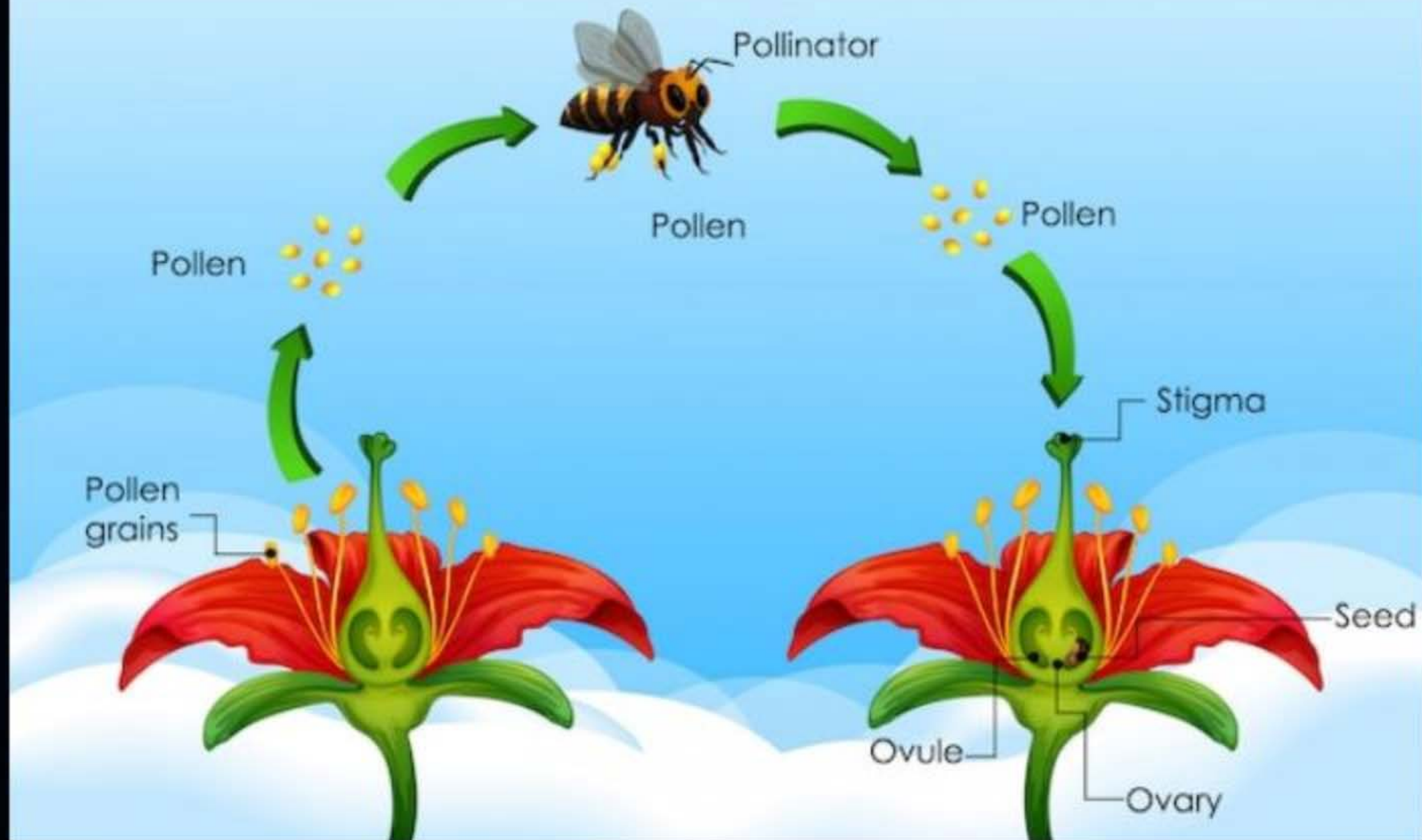




Pollen grain to stigma :



# POLLINATION







# Types of Pollination



## Self pollination

- Transfer of the pollen grains from the anther to the stigma of either the same flower or another flower on the same plant.



## Cross pollination

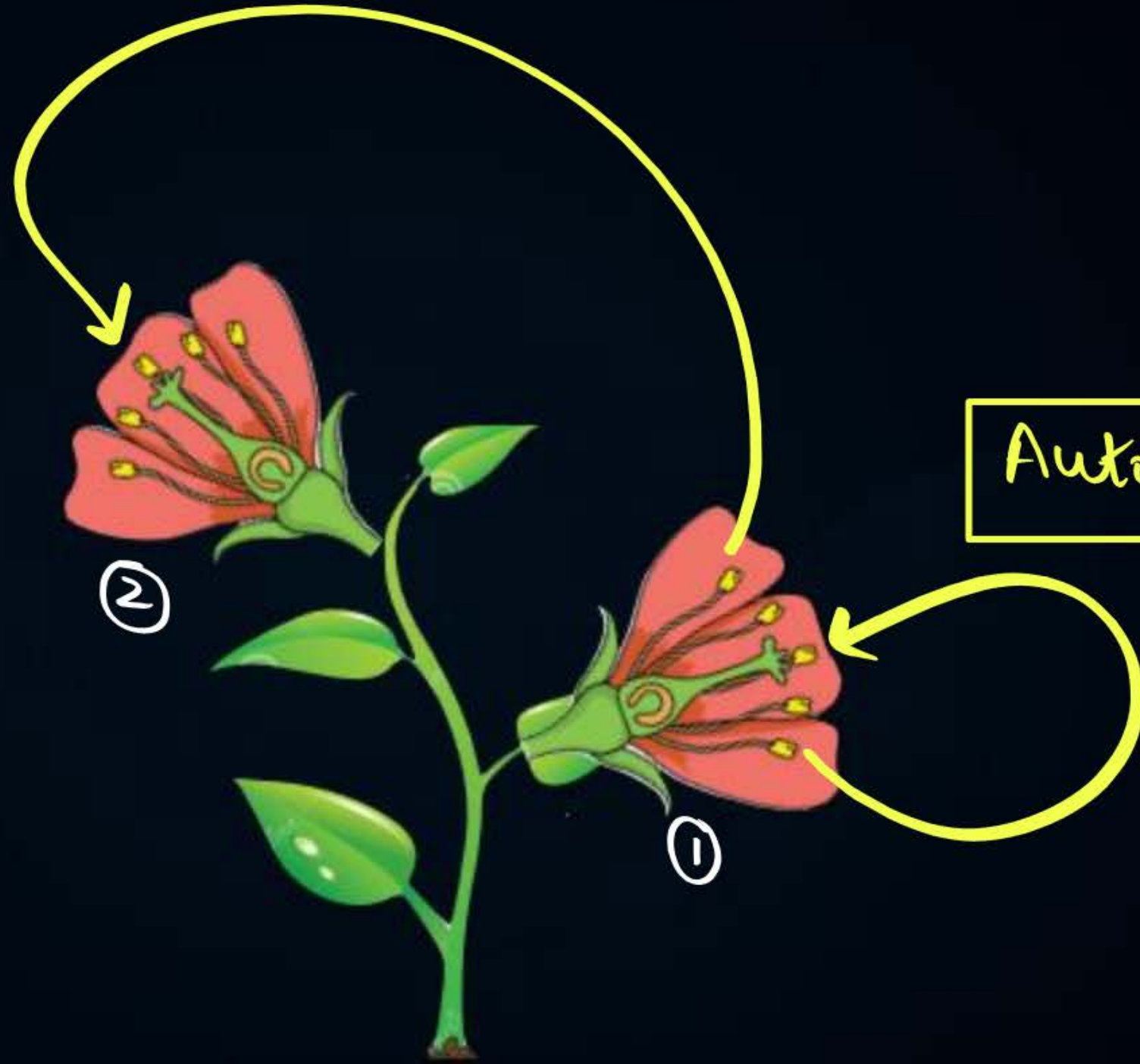
- Transfer of the pollen grains from the anther of one flower to the stigma of another flower borne on a different plant of the same species.

# Self pollination



Geitonogamy

Autogamy





# Cross pollination



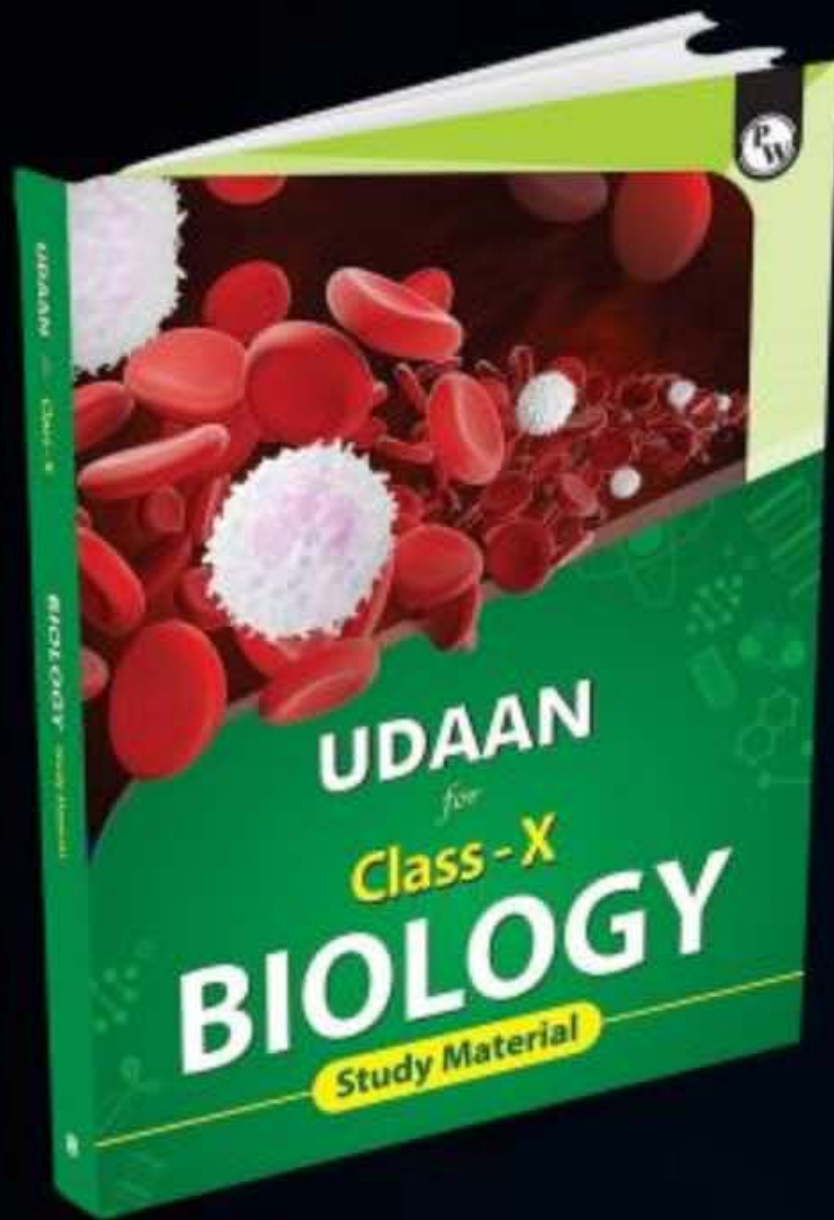
Cross-pollination { Xenogamy }



Which part of flower gets converted into fruit after fertilisation ?

- ☐ A Ovule
- ☒ B Ovary → fruit.
- ☐ C Stigma
- ☐ D Pollen grains





# Homework



FROM PW MODULE  
( Udaan - CLASS 10 )

PAGE : 142 Q-26 , Q-21

An illustration of a young boy with orange hair, wearing a black graduation cap and gown, standing on a stack of three books. He is holding a large globe of the Earth. A white checkmark is positioned to the left of the text below.

## Question of the Day

Largest flower of the world





## Joke/Meme of the Day



Pollination

Insect



Plant

तुम बहुत मस्त काम करता है

# DUA }  
# NCERT }



THANK  
YOU

