

UPDAAN

2025

LIFE PROCESSES

Biology

Lecture 03

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Ma'am



Topics to be covered

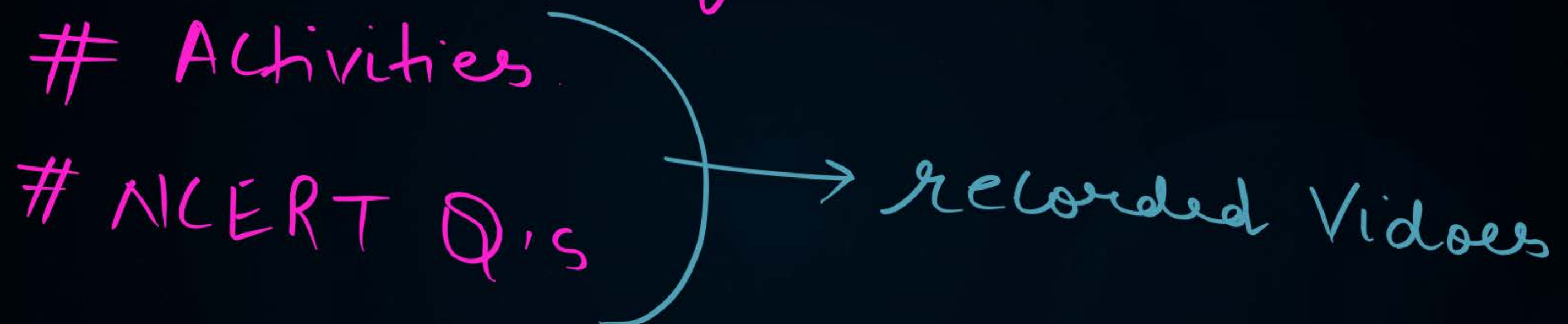
- 1 Types of heterotrophic Nutrition ✓
- 2 Nutrition in Amoeba and Paramecium ✓
- 2 Steps of Holozoic Nutrition ✓



Notes → Theory

Activities

NCERT Q's



Recorded Videos



Question of the Day



Can plants perform photosynthesis under artificial light ?

~~(A)~~ Yes

(B) No

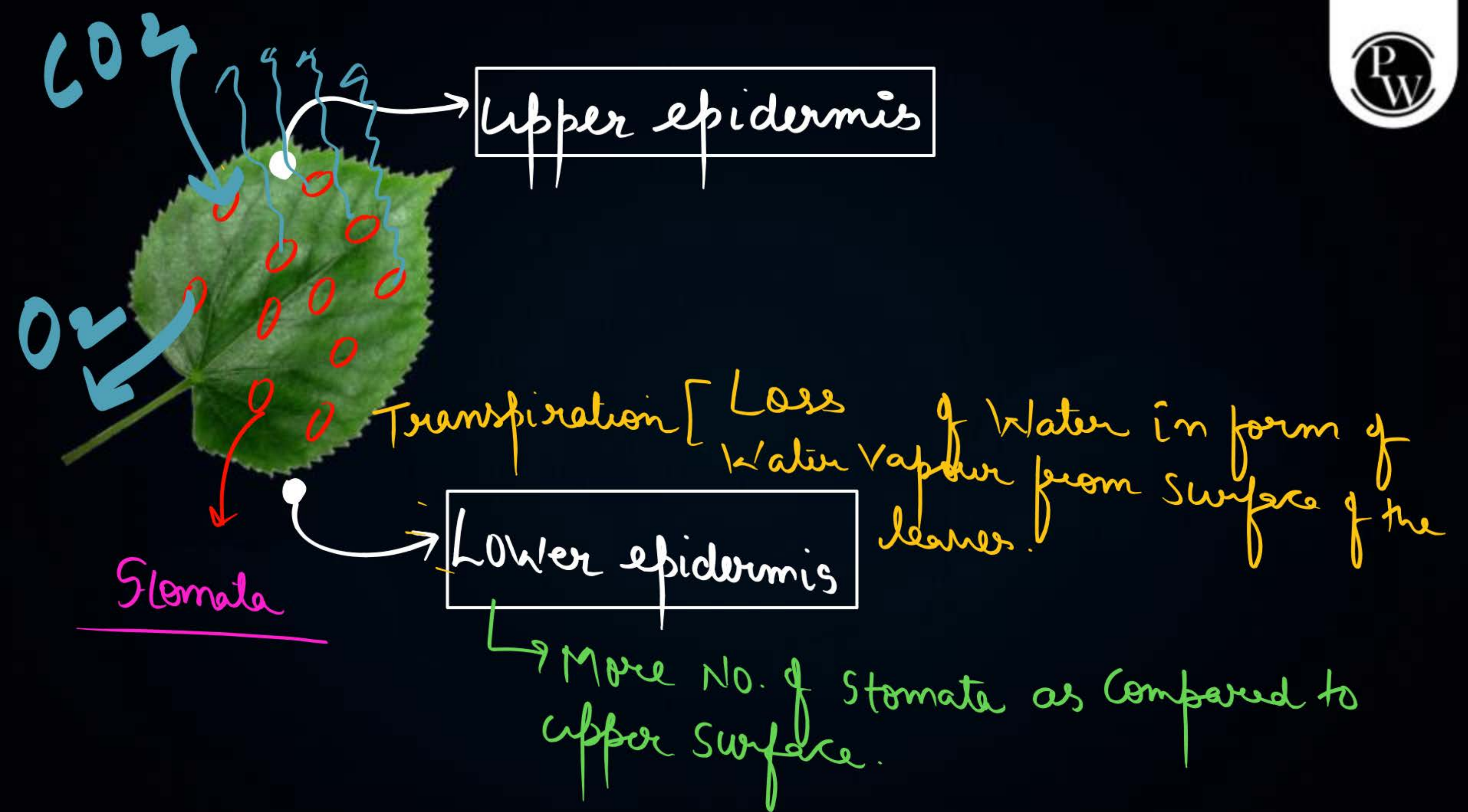
→ Bulbs
Tube light

QUESTION

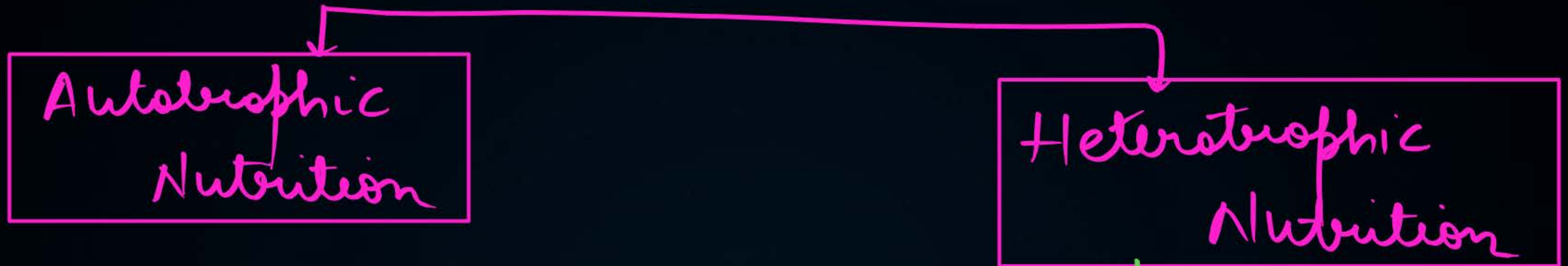


Stomatal pore opens when water _____

- A Moves out of the guard cell
- ☒ B Moves inside the guard cell
- C Opening and closing of stomata is independent of guard cells
- D None of the above



Nutrition



A type of nutrition in which organisms are dependant on other organisms for food.



Heterotrophic Nutrition and its types

- ① Holozoic Nutrition
- ② Saprotrophic / Saprophytic Nutrition
- ③ Parasitic Nutrition



Holozoic Nutrition



Omnivores



Carnivores



Herbivores

Saprophytic Nutrition

Decomposer

→ feed on dead & decaying matter

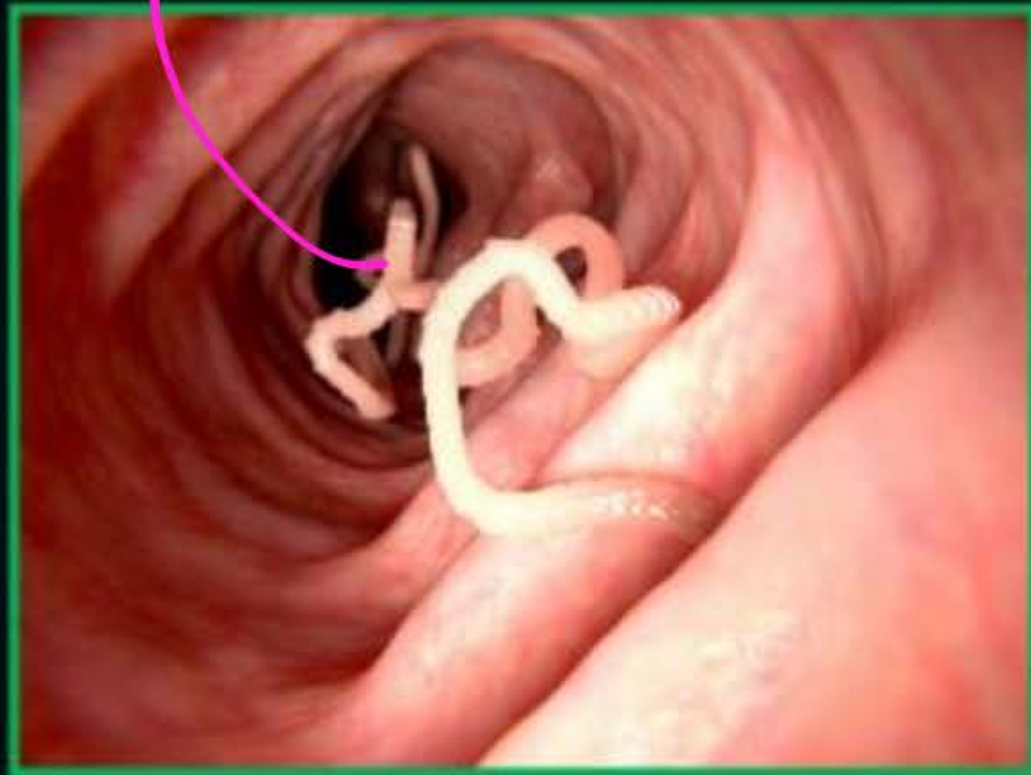


→ Rhizopus [Bread Mould] → fungi.

Parasitic Nutrition



Ascarus [Round Worm]
→ Small intestine



Ticks

Holozoic Nutrition

✓/hole

- Organism feed by ingesting whole food material.
- Food is digested and absorbed ✓ inside the animal body.

Saprotrophic Nutrition

- Organism feed on ✓ dead and decaying matter ✓

- * Food is digested externally and then nutrients are absorbed.

Parasitic Nutrition



- Organism derive nutrition from ✓ plants or ✓ animals without killing them.
- Obtain nutrition by ✓ living on or ✓ inside the host. ✓



Holozoic Nutrition

Examples :

ANIMALS

Herbivores

Carnivores

Omnivores → Human Being

Unicellular organisms

Amoeba

Paramecium

Saprotrophic Nutrition

Saprotrophs / Saprophytes

Examples :

Most of the fungi

✓ Bread mould (Rhizopus)

✓ Mushroom

✓ Yeast [unicellular fungi]

Some bacteria

✓ E.coli

decomposers

Parasitic Nutrition

Examples :

✓ Tapeworm

✓ Lice

✓ Ticks

✓ Leech

✓ Ascaris

Liver fluke.

Parasitic plant



Cuscuta

Amar-bel

Chlorophyll absent

Can't perform photosynthesis

#Ch

11.82

Which of the following is an example of parasitic plant ?

- A Money plant
- B Insectivorous plant
- C Cuscuta ✓
- D All of the above

QUESTION



Saprobial
Nutrition

Which of the following organism digests its food externally ?

- A Tapeworm
- B Human being
- ☒ C Bread mould
- D Green plants

→ Rhizopus

QUESTION



What type of nutrition is shown by amoeba, mushroom and cuscuta?

(Handwritten annotations: 'H' in a circle with an arrow pointing to 'amoeba', 'S' in a circle with an arrow pointing to 'mushroom', and 'P' in a circle with an arrow pointing to 'cuscuta'.)

A Saprophytic, parasitic and holozoic

B Parasitic, holozoic and saprophytic

☒ C Holozoic, saprophytic, parasitic

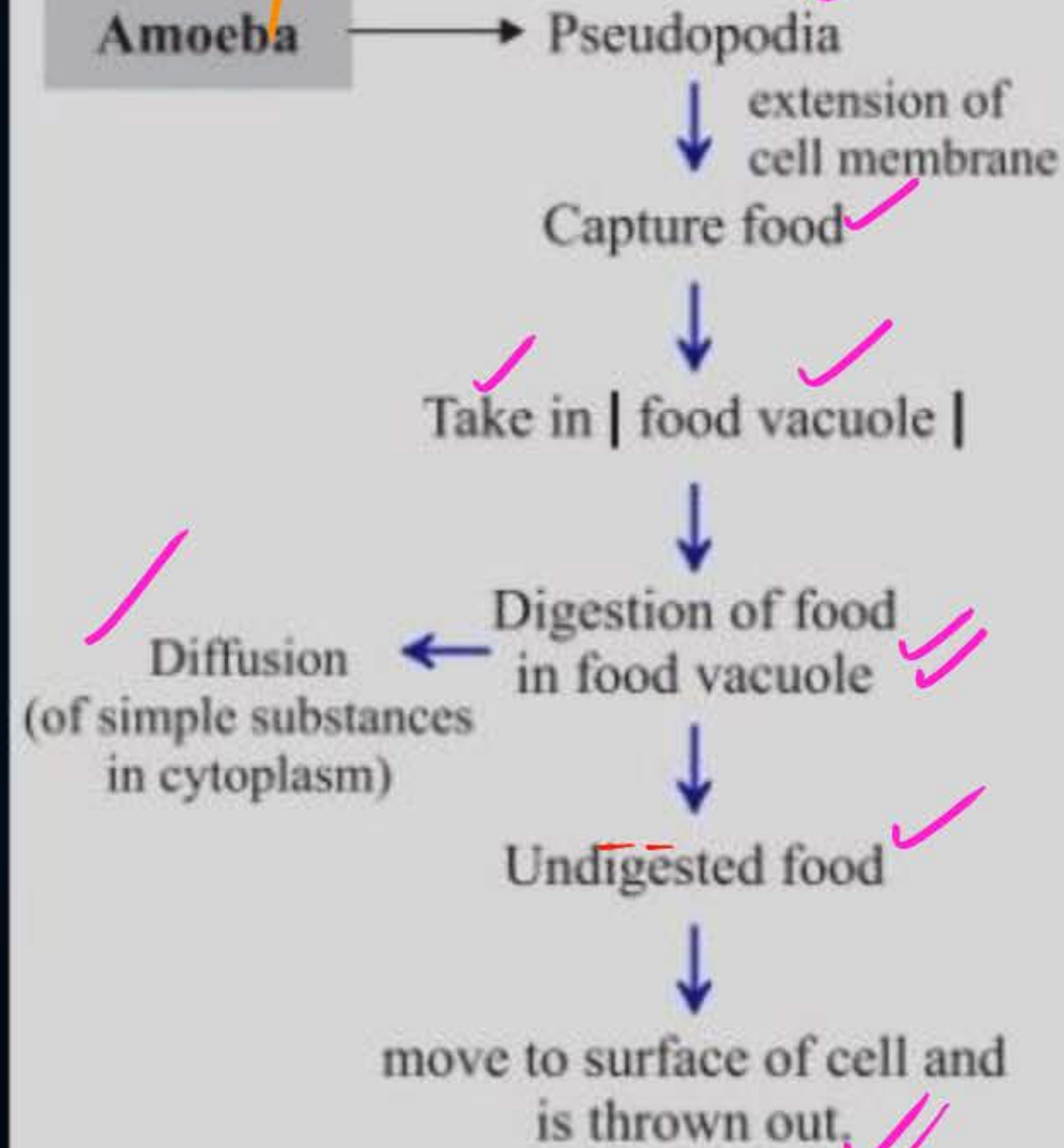
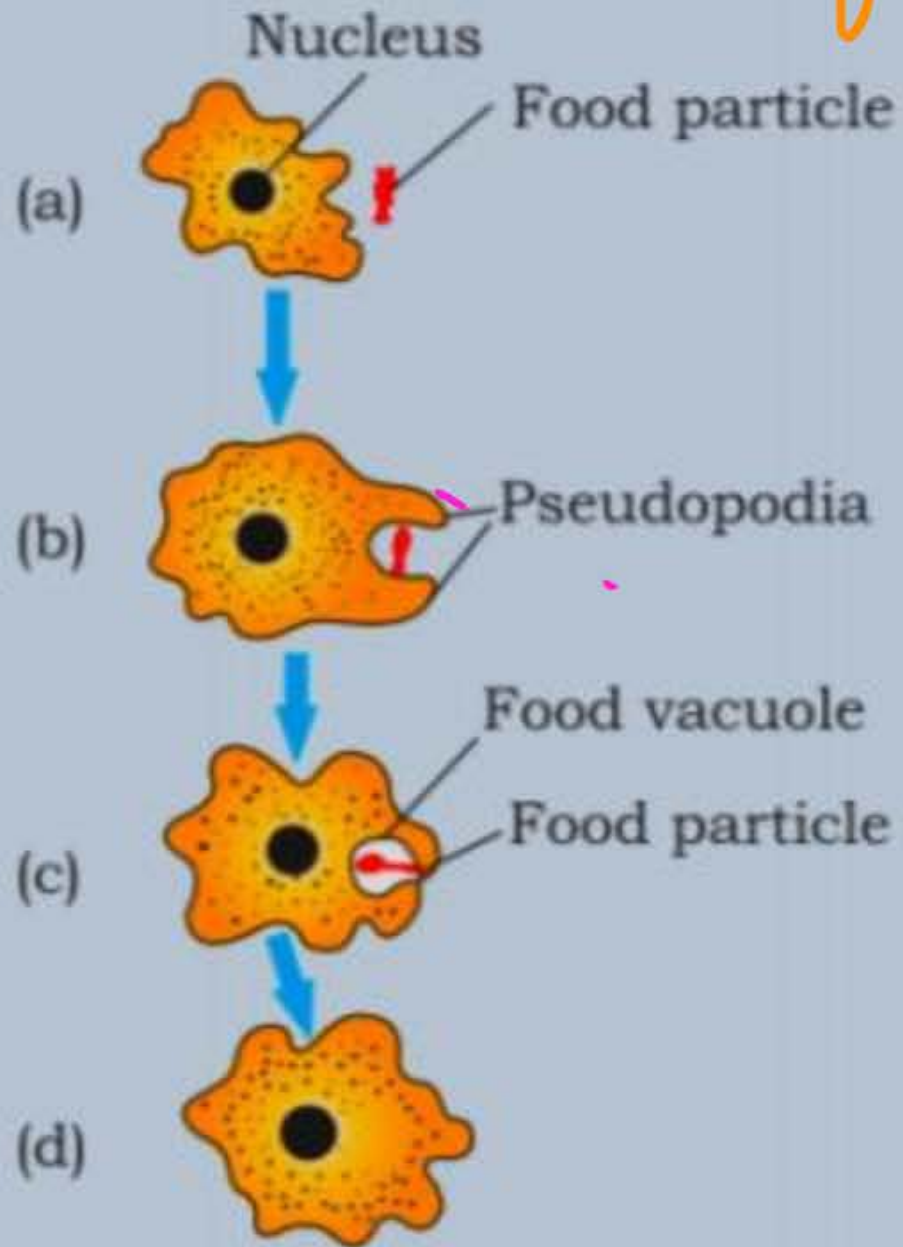
D Holozoic, parasitic and saprophytic

Nutrition in Amoeba

Holozoic Nutrition

uni-cellular organism

No fixed Shape



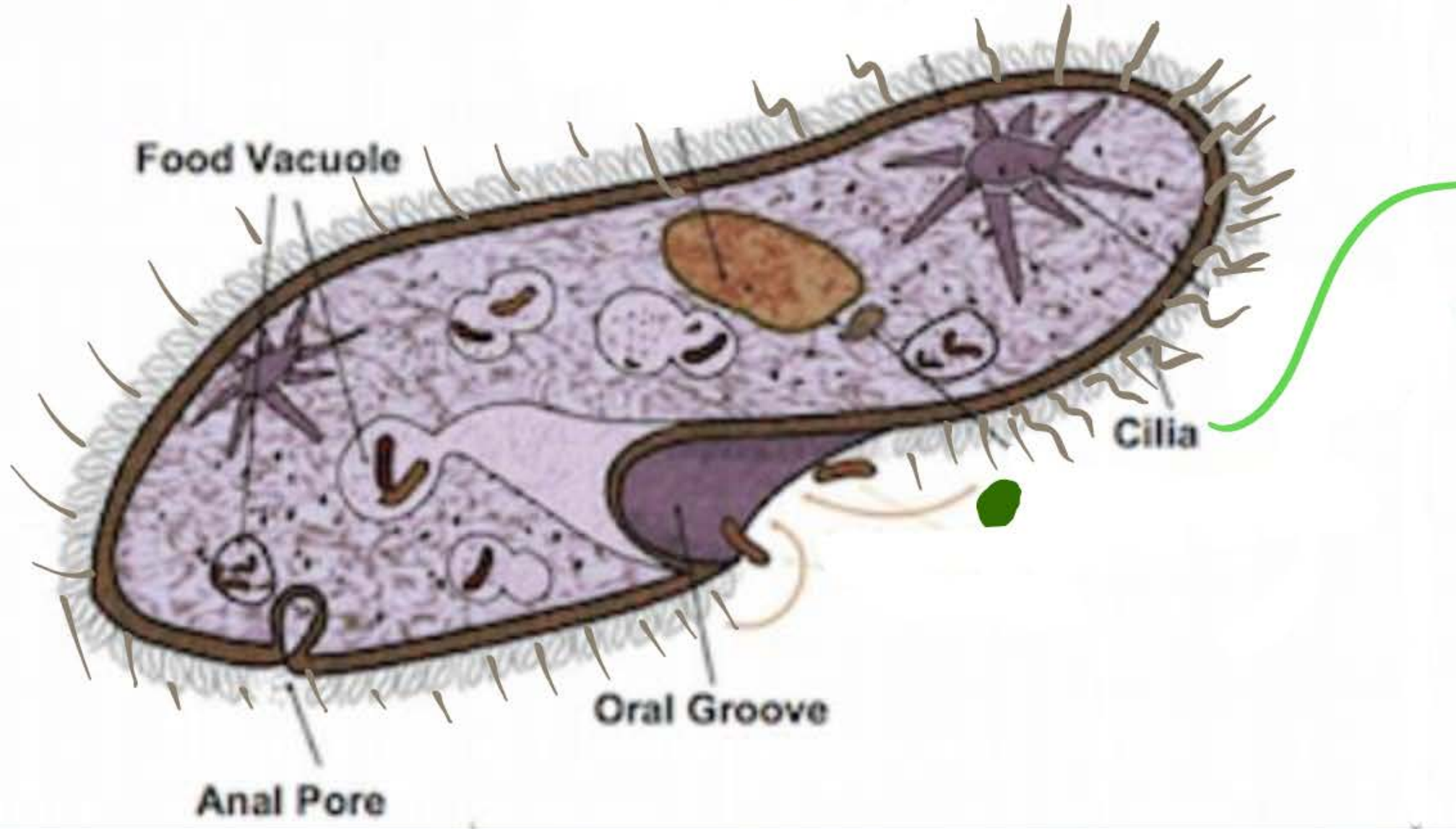
#Ch

Nutrition in Paramecium

Hologoic Nutrition

Uni-Cellular

Fixed Shape



Hair-Like Structures





Homework



↳ Read NEERT → Q's

An illustration of a young student with orange hair, wearing a black graduation cap and gown, standing on a purple book. A large green and blue globe is positioned behind the student.

Question of the Day

→ Total length of Small intestine



Joke/Meme of the Day



Herbivores



Carnivores



Omnivores





THANK
YOU

