

REPRODUCTION IN ORGANISMS

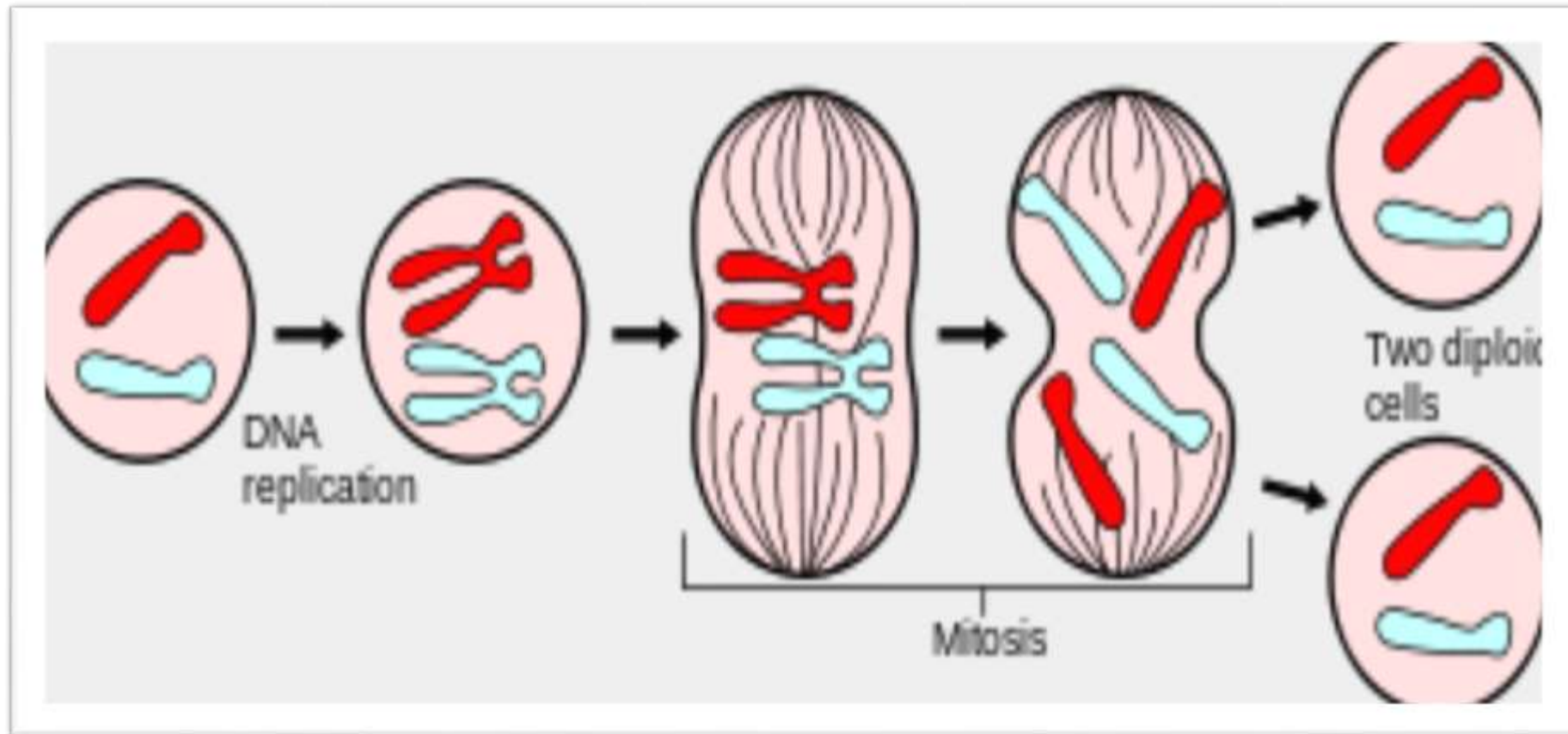
CLASS XII

LIFE SPAN

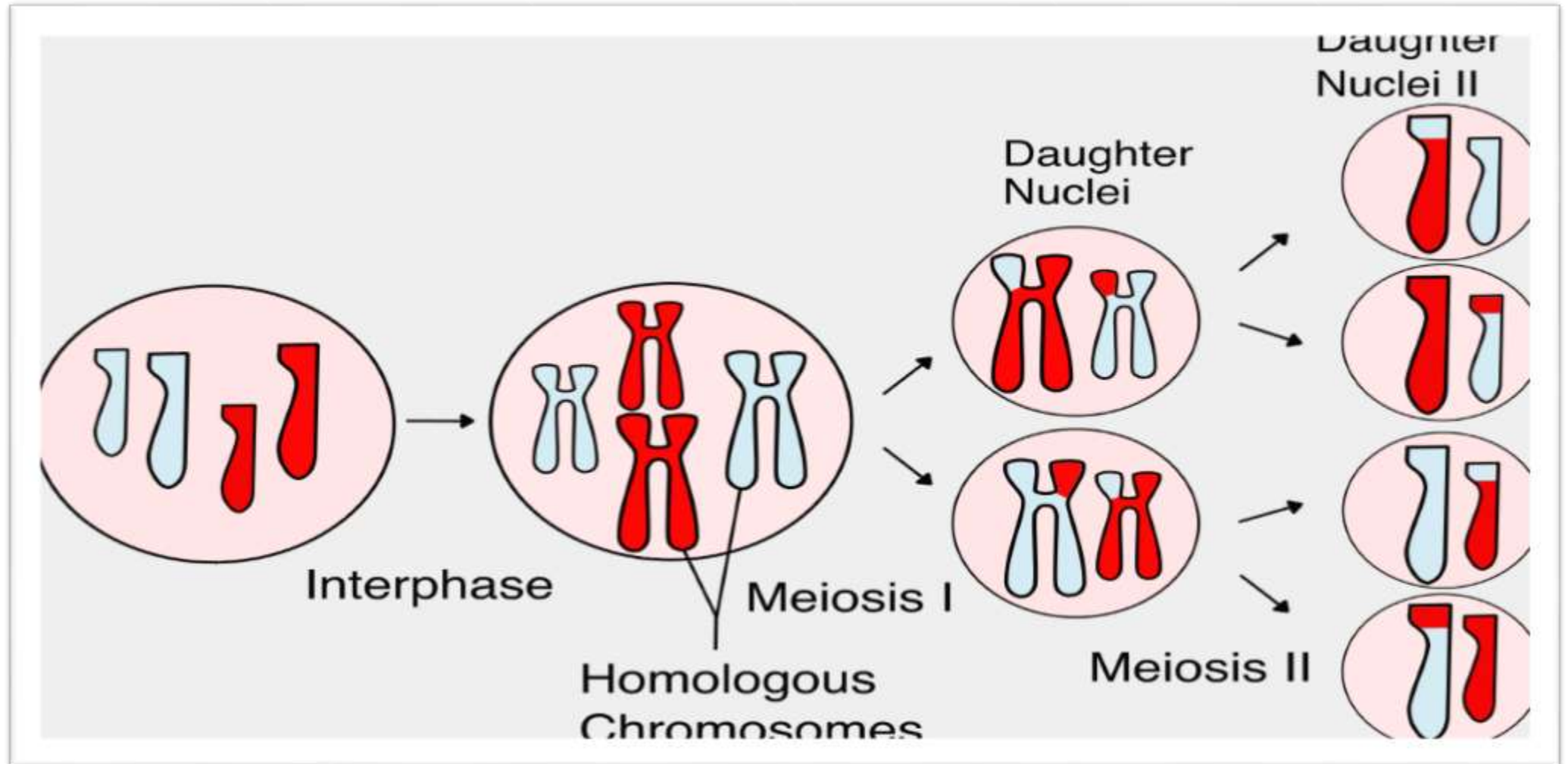
Life span is the average time period between the birth and death of an organism. Life span includes the growth of an organism from the time of birth till its death.

TYPES OF CELL DIVISION

TYPE 1: MITOSIS

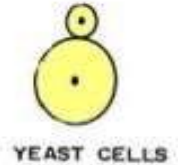
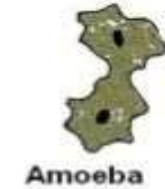
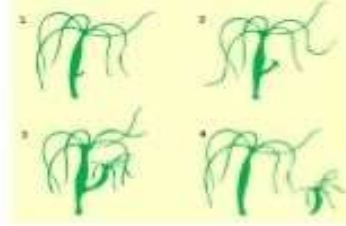


TYPE 2: MEIOSIS



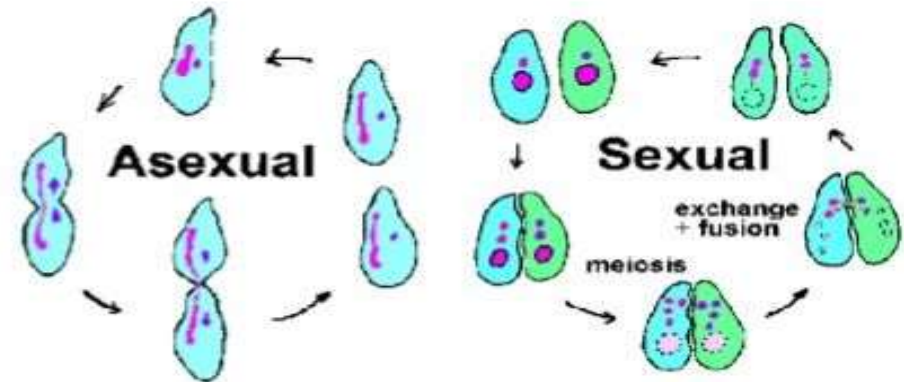
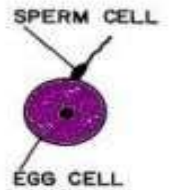
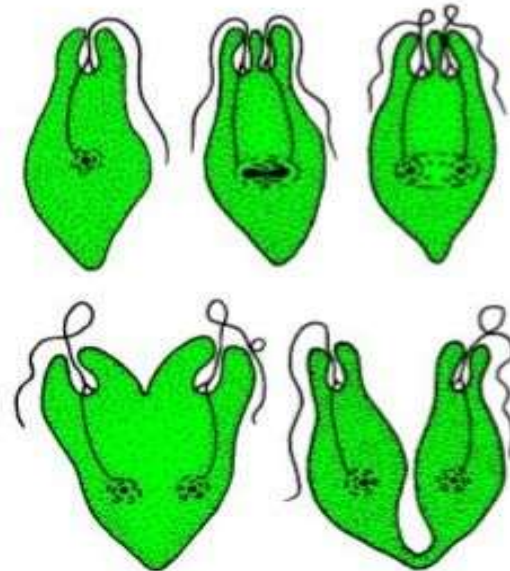
TYPES OF REPRODUCTION

- ASEXUAL



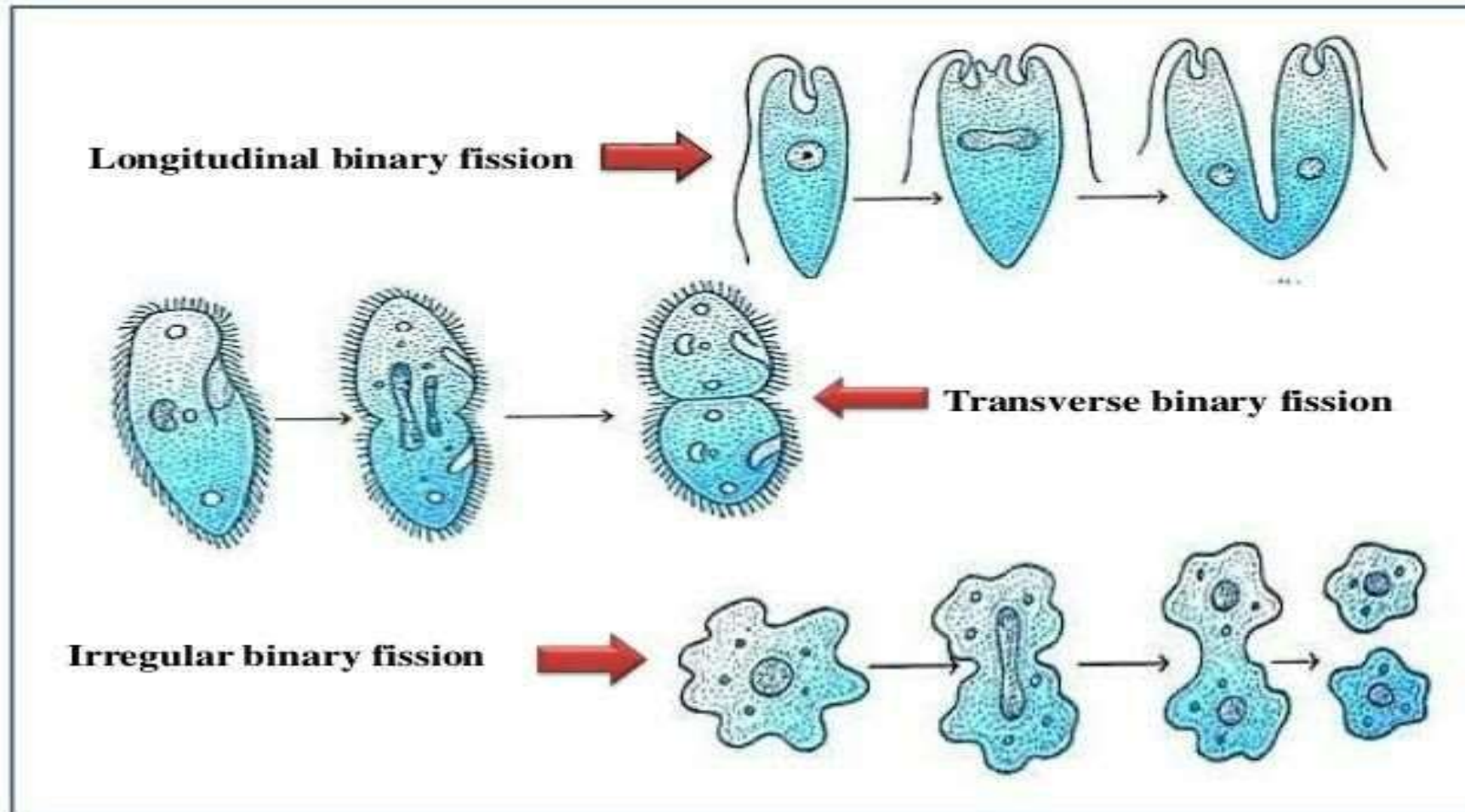
Asexual vs. Sexual Reproduction

- SEXUAL

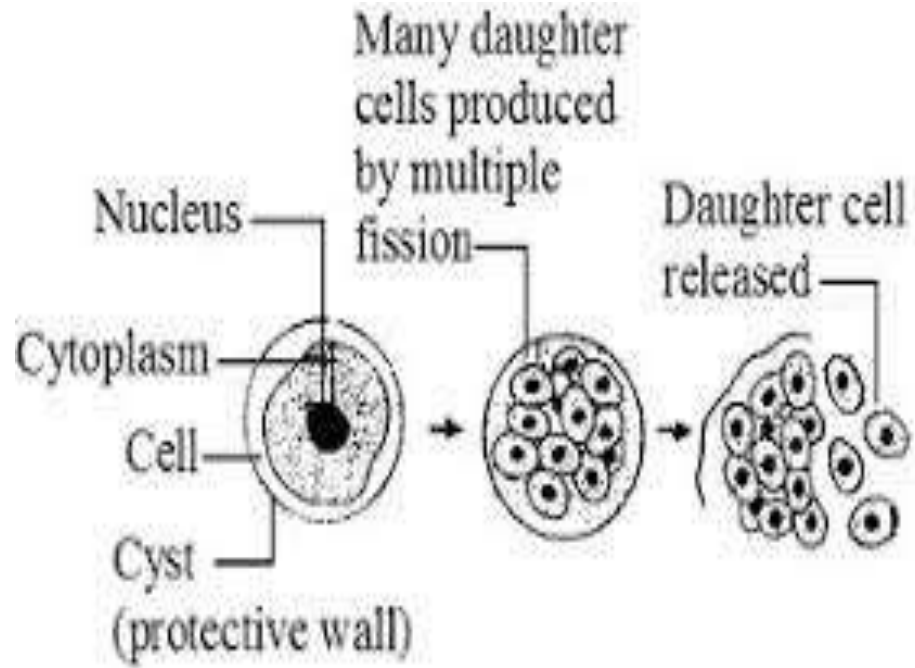


TYPES OF ASESEXUAL REPRODUCTION

BINARY FISSION



MULTIPLE FISSION



Multiple Fission in Plasmodium

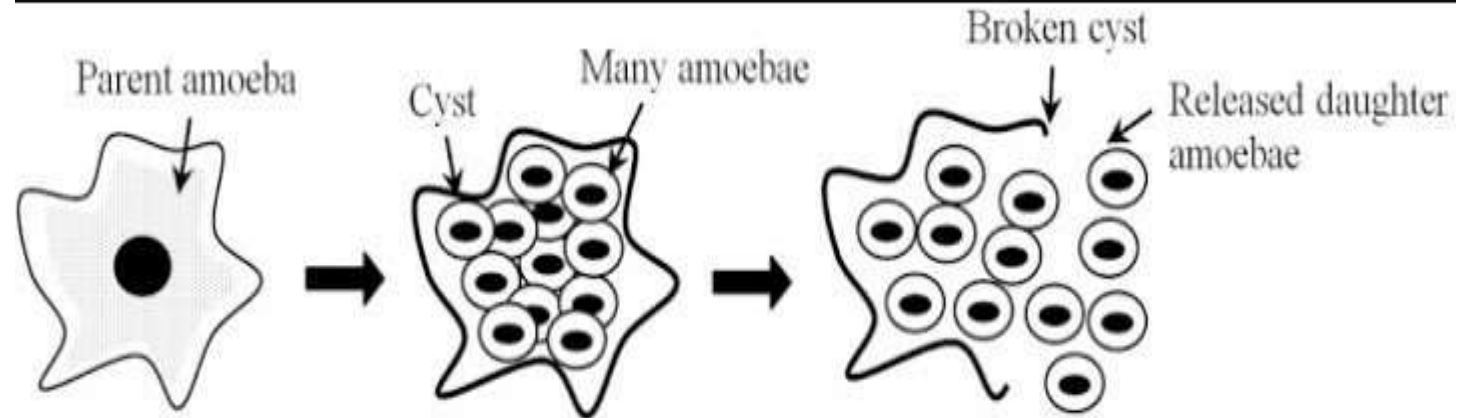


Fig. 2 Multiple fission in amoeba

BUDDING

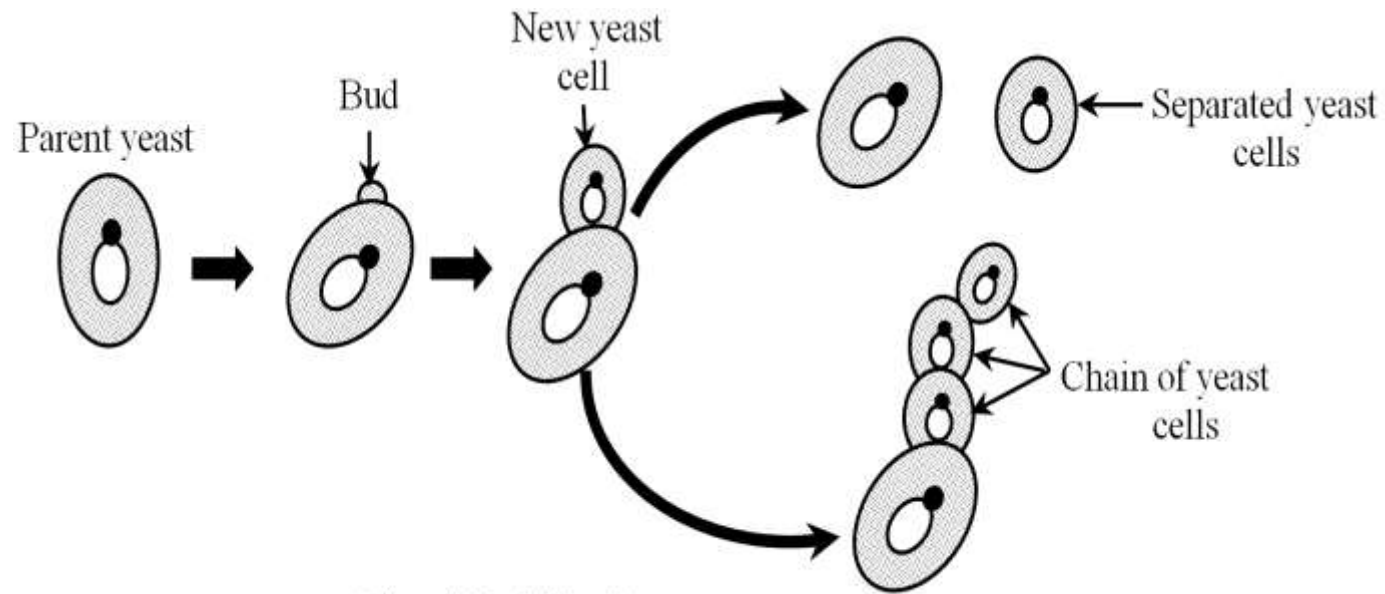
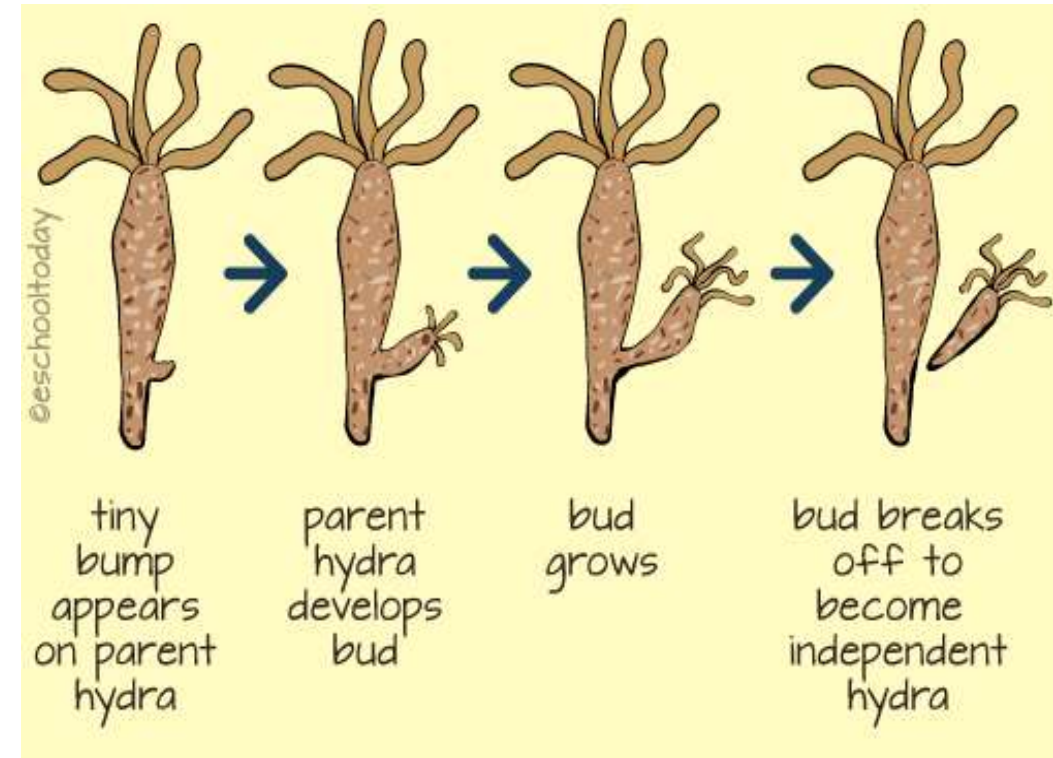
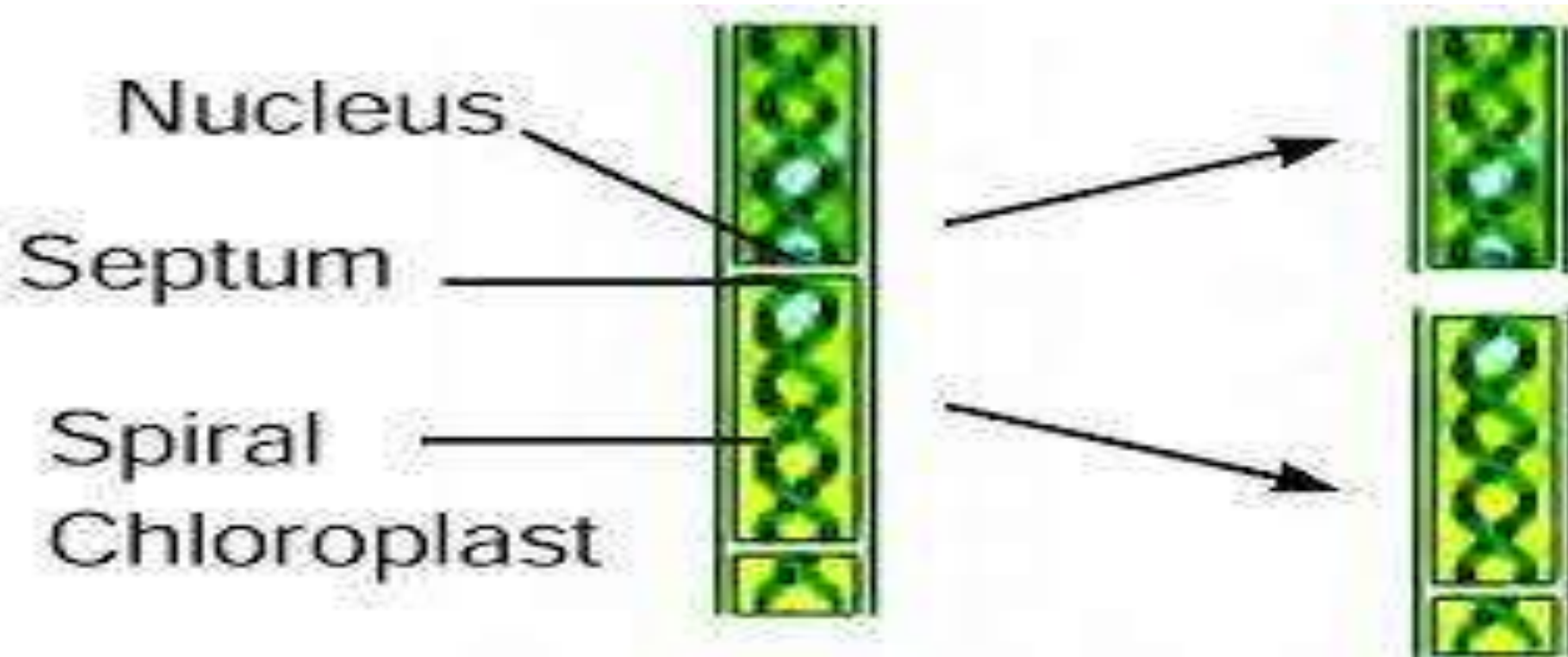


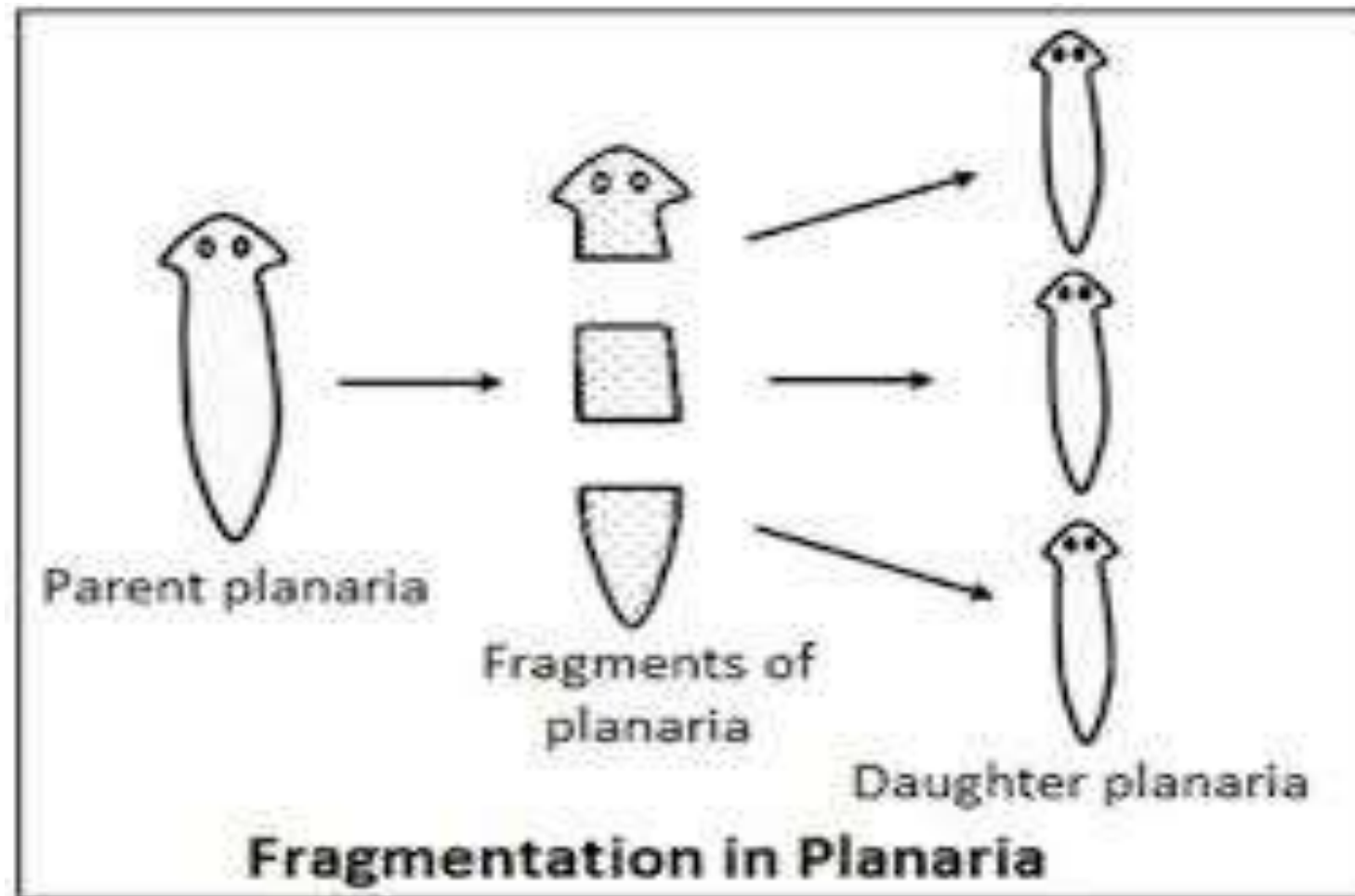
Fig. 4 Budding in yeast



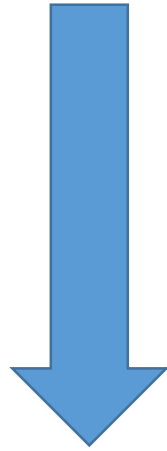
FRAGMENTATION



REGENERATION



SPORULATION



ZOOSPORES



CONIDIA



SPONGES

VEGETATIVE PROPAGATION

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graph TD; A[VEGETATIVE PROPAGATION] --> B[NATURAL]; A --> C[ARTIFICIAL];
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NATURAL

ARTIFICIAL

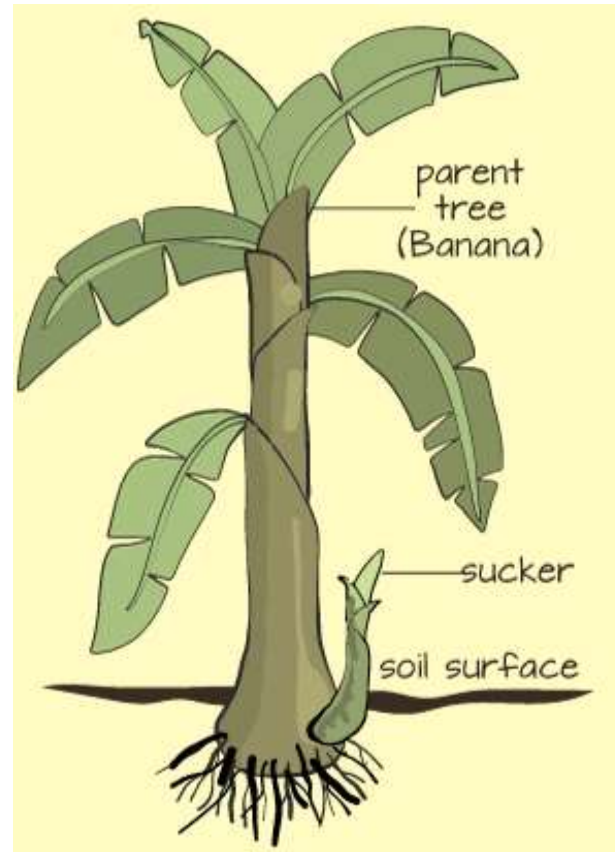
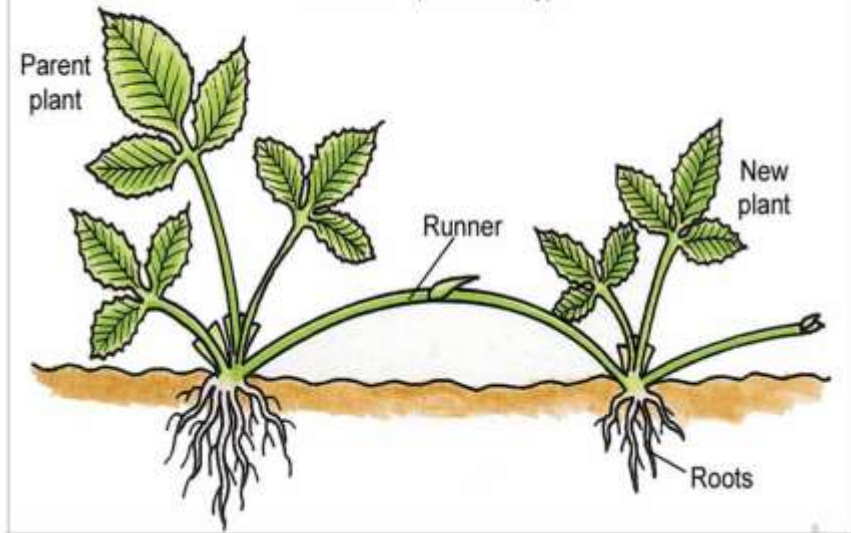
Natural Methods

Vegetative organs such as roots, stems, leaves, rhizomes, tubers, bulbs etc.,

Examples

- ✓ Bulbs – Garlic, Squill
- ✓ Tubers – Jalap, Potato
- ✓ Rhizomes – Ginger, Turmeric
- ✓ Suckers – Liquorice
- ✓ Runners – Mint, chemomile

Vegetative Reproduction - Stems
RUNNER (Strawberry)

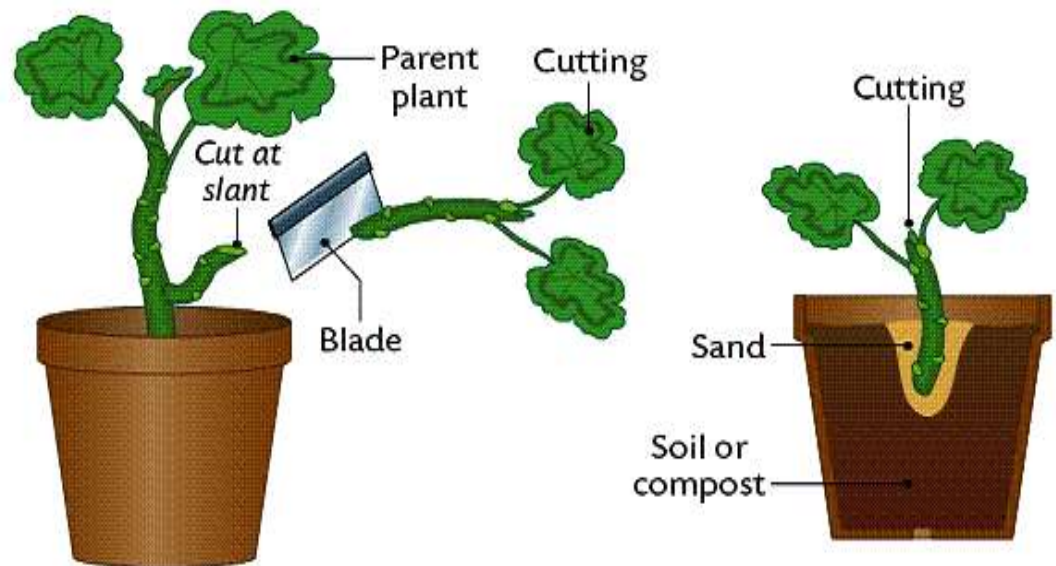


Artificial methods

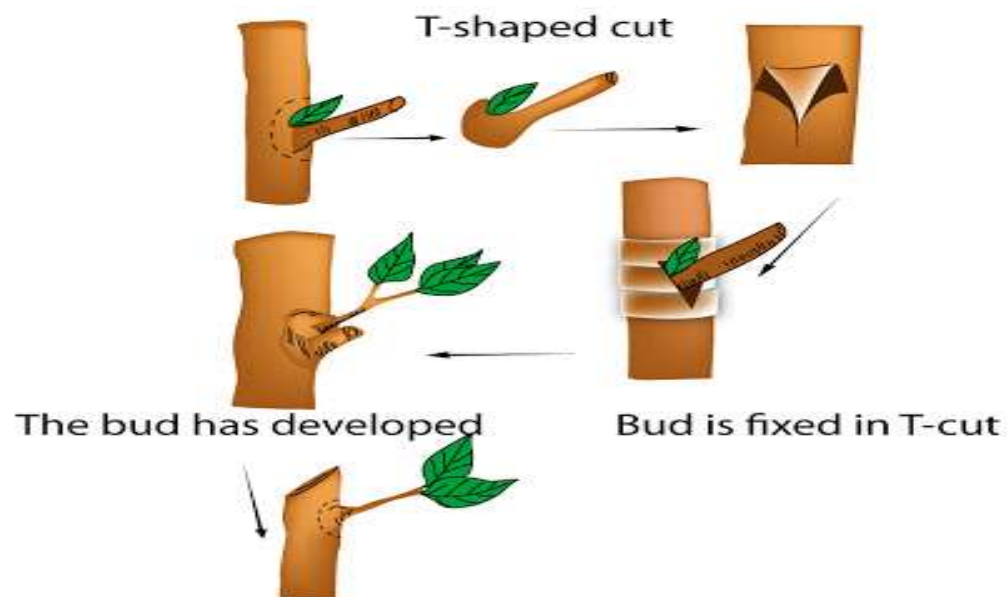
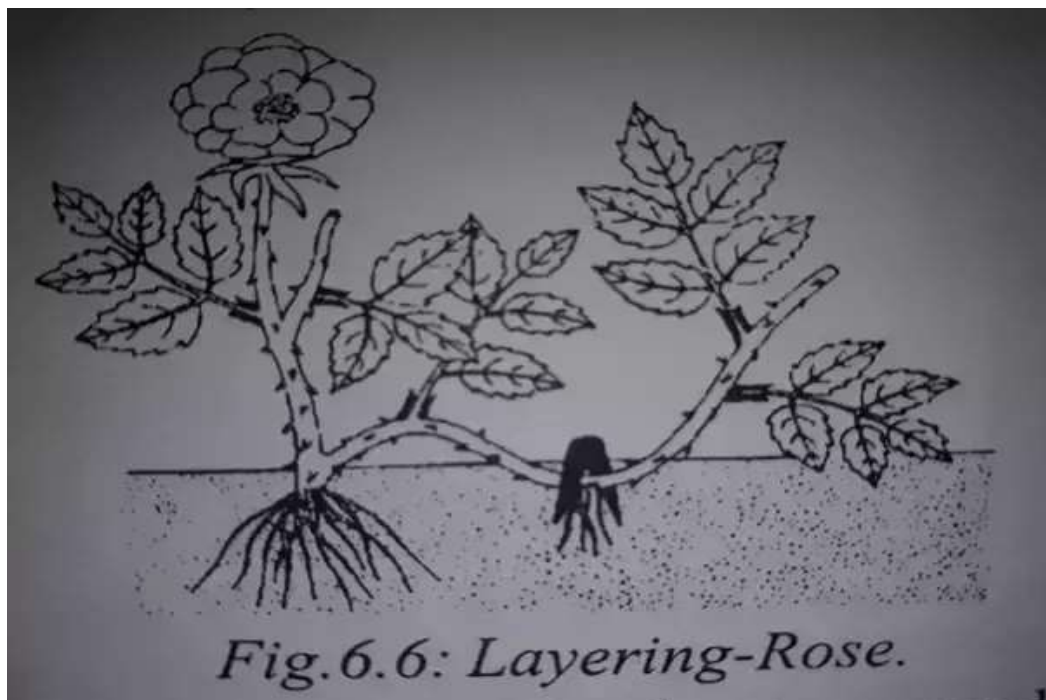
- ❑ Specific method or process is used on any vegetative part of the plant for propagation.

Types

- 1) Cutting
- 2) Layering
- 3) Division
- 4) Grafting



Grafting



QUESTIONS

Q. What are the two inherent characteristics of amoeba and yeast that favour asexual reproduction in them?

Q. Explain giving two examples if there is a relationship between the size and the lifespan of an organism.

Q. State the differences between:

1.Oestrous and menstrual cycle

2.Ovipary and vivipary

Q. Why is it so that the gametes produced in the organisms in large numbers exhibit external fertilization?

Q. Why can't multicellular organisms reproduce by cell division?

Q. What is Gametogenesis? What is Embryogenesis?

Q. Is vegetative propagation considered a type of asexual reproduction? Give reasons.