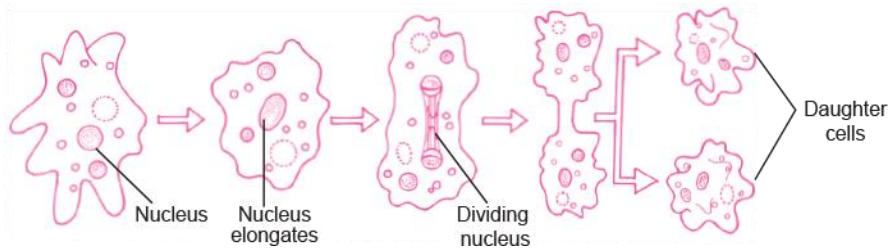


Short Answer Questions-II

[3 marks]

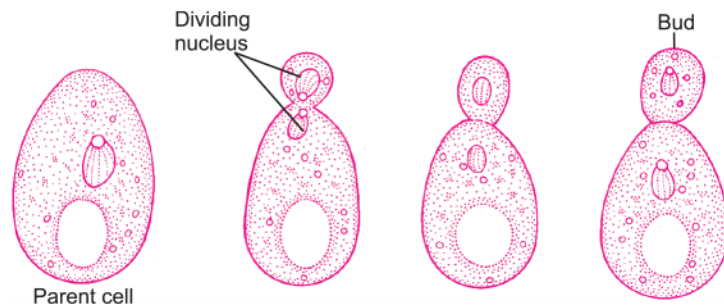
Q.1. Diagrammatically represent the asexual reproduction in Amoeba.

Ans.



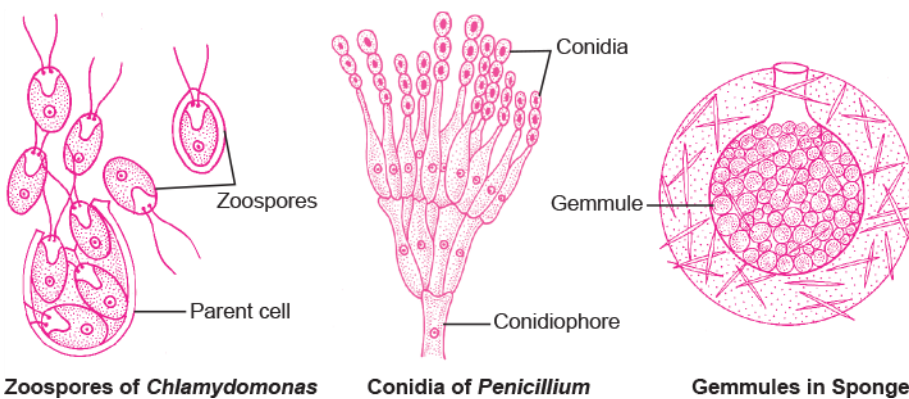
Q.2. Diagrammatically represent the asexual reproduction in yeast.

Ans.



Q.3. Draw the sketches of a zoospore and a conidium. Mention two dissimilarities between them and at least one feature common to both structures.

Ans.



Dissimilarities: Zoospores are motile whereas conidia are non-motile. Zoospores are produced in a sporangium whereas conidia are produced externally.

Common feature: Both are the means of asexual reproduction.

Q.4. Although sexual reproduction is a long drawn, energy-intensive complex form of reproduction, many groups of organism in Kingdom Animalia and Plantae prefer this mode of reproduction. Give at least three reasons for this.

Ans.

(a) Sexual reproduction brings about variation in the offspring.

(b) Since gamete formation is preceded by meiosis, genetic recombination occurring during crossing over (meiosis-I), leads to a great deal of variation in the DNA of gametes.

(c) The organism has better chance of survival in a changing environment.

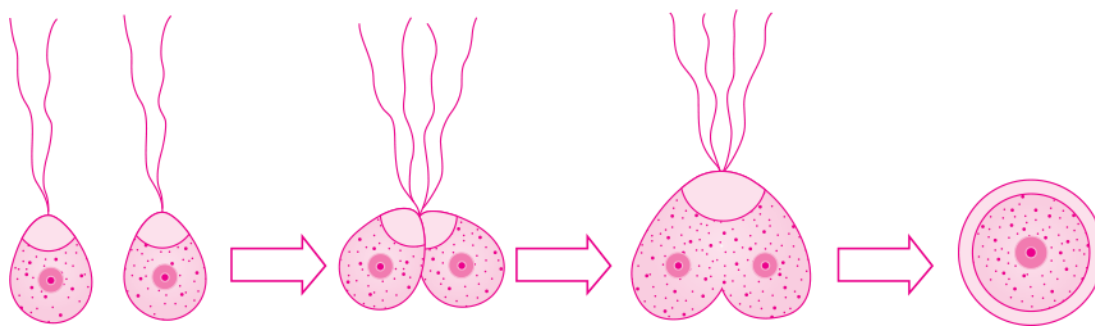
Q.5. Differentiate between an annual and a biennial plant. Provide one example of each.

Ans.

| S. No. | Annual Plants | Biennial Plants |
|--------|--|---|
| (i) | These plants require a single season to complete their whole life cycle. | These plants require two seasons to complete their whole life cycle. |
| (ii) | They grow, set seeds and die within one year. | In the first year, they grow a healthy root system and short stem, and become dormant in winters. In second year, they grow quickly, flower, set seeds and die. |
| (iii) | For example, rice, wheat, etc. | For example, onion, carrot, etc. |

Q.6.

- State the type of gametes shown in the diagram.**
- Identify the process taking place and the resultant structure.**
- Name an organism that reproduces in this manner.**



Ans.

- i. Isogametes.
- ii. Fertilisation is taking place and zygote is the resultant structure.
- iii. Cladophora/Chlamydomonas.