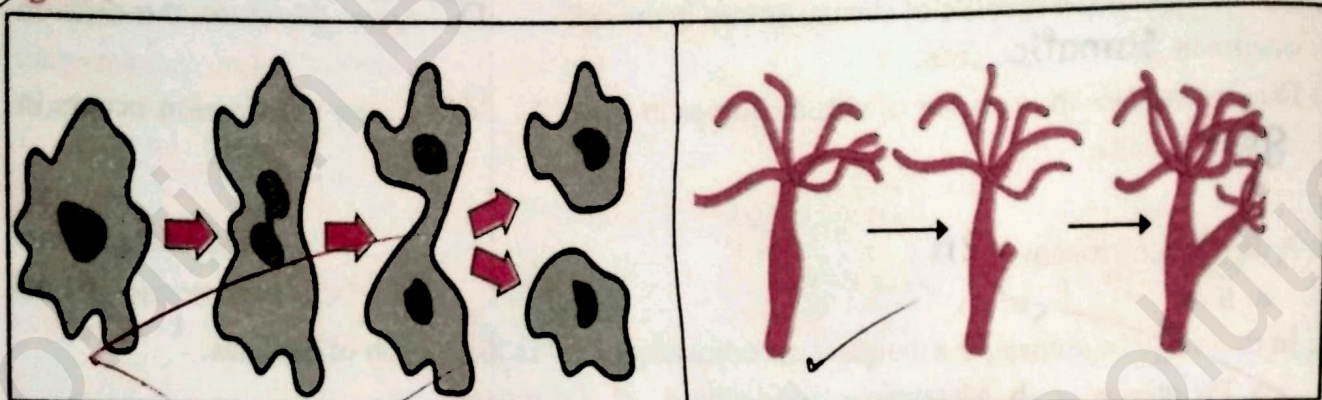


Practical No. 2

Aim : To study binary fission in Amoeba and budding in Hydra with the help of permanent slides.

Apparatus : Compound microscopes, permanent slides showing binary fission in Amoeba and budding in Hydra.

Figure :



Procedure :

1. Take the permanent slides showing binary fission in Amoeba and budding in Hydra.
2. Adjust eyepiece and mirror of compound microscope. Observe each slide first under low power and then under high power objective lens.
3. Note down your observations.

Observation :

A. Binary fission in Amoeba :

1. At the beginning, parent cell of Amoeba gets elongated.
2. Nucleus gets oval shape.
3. A notch is developed at the site of division.
1. Two small daughter cells of Amoeba are formed.

B. Budding in Hydra :

1. A small outgrowth is seen on the body of Hydra.
2. It becomes multicellular due to enough growth.
3. This outgrowth detaches in the form of bud having mouth and tentacles.

Inference / Conclusion :

1. Amoeba and Hydra reproduce by ...budding... method.

Multiple Choice Questions

1. Previously Raju observe Hydra bud under low power objective lens. But afterwards he used high power to observe
a. micro parts in small space. b. maximum space around.
c. maximum of bud. d. All of the above.

2. Which of the following is asexual method of reproduction?
 a. Division b. Budding c. Spore formation ☒ All of these.
3. To observe Amoeba and Paramecium in a water drop, the drop was taken on a glass slide. If both the organisms were clearly seen, then the stain used must be
☒ Methylene blue. b. Iodine. c. Safranin. d. Eosin.
4. is the type of reproduction in Hydra.
 a. Binary fission ☒ Budding c. Multiple division d. None of these.
5. While observing permanent slide of Amoeba, Ramesh saw oval shaped nucleus. This nucleus indicates
☒ binary fission b. budding c. multiple division d. none of these.

: Exercise :

1. Explain with examples - different methods of asexual reproduction in plants.

Reproduction in plants with the help of vegetative parts like root, stem, leaf and bud is called as vegetative reproduction. Vegetative propagation in potatoes is performed with the help of 'eyes' present on tuber whereas in bryophyta it is performed with the help of bud present on leaf margin.

2. Name the process where cytoplasmic material is divided into daughter cells.

When the favourable material or food is provided to the cell that time fussion happened and daughter cells are formed.

3. What changes occurs in Amoeba to survive in adverse conditions?

In adverse condition Amoeba perform multiple fission. Amoeba stops the formation of pseudopodia and thereby stops movement, whenever there is lack of food or any other type of adverse condition, It becomes rounded and formed 'cyst'.

4. How does nutrition takes place in bud of Hydra?

In a case of Hydra, under the favourable condition at specific part of its body bud is growing and replaced by division of regenerative cell of body wall. this out growth of bud is called as budding. Bud grows up progressively and finally forms a small hydra.



Remark and Signature