

Class X

EXPERIMENT No: 6

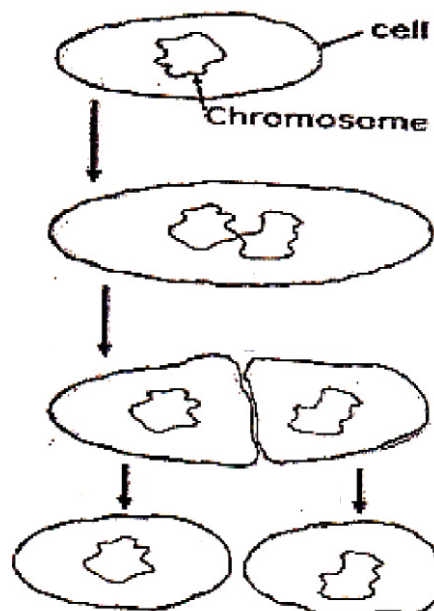
AIM: To study (a) binary fission in Amoeba and (b) budding in yeast with the help of prepared slides.

Materials Required :

Compound microscope, permanent slides of binary fission in Amoeba and budding in yeast, charts of binary fission and budding.

Procedure :

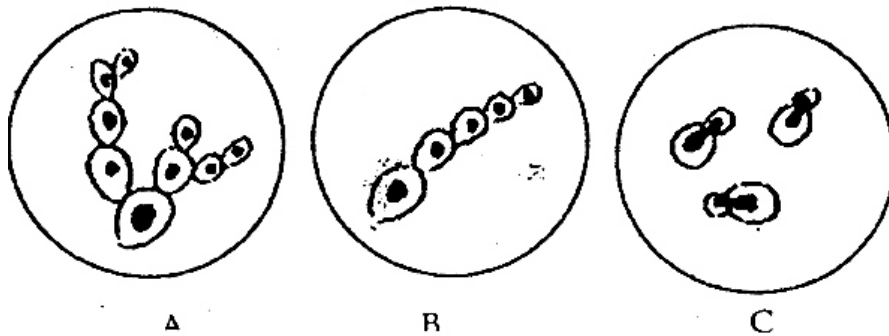
1. Focus the slide of binary fission of Amoeba under low power of compound microscope.
2. After observing under low power change to high power of magnification.
3. Observe various stages of cell division in binary fission of Amoeba.
4. Draw diagrams of different stages of binary fission in Amoeba.



Binary fission in Amoeba

5. Focus the slide of budding in Yeast under low power of compound microscope.
6. After observing under low power, change to high power of magnification.
7. Observe various stages of cell division in budding in Yeast especially chain of buds.
8. Draw diagrams of different stages of budding of budding in Yeast.

Budding in Yeasts



Budding in Yeast

Observation :

1. Binary fission in Amoeba shows division of nucleus by stretching.
2. Nucleus breaks into two nuclei slowly and cytoplasm also divides (cytokinesis).
3. Two small daughter cells (Amoebae) are formed at the end.
4. Budding in Yeast shows many cells attached with each other forming a branched chain.
5. Nucleus starts dividing first by stretching and followed by cytokinesis.
6. Daughter cells originate as small buds of parent cell and grow very fast.
7. Daughter cells remain attached with parent cells and separate later on.

Precautions :

1. Keep microscope in box when not in use.

2. Clean the stage of microscope before and after use
3. Do not tilt the microscope. Microscope should be held vertical.
4. Slide should be firmly clipped on the stage.
5. First observe under low power of microscope and then change to high power lens.