

# UNIT-3

## MICROBIAL GROWTH

- \* Bacterial growth is an orderly increase in the quantity of cellular constituent that is cell mass and number
- \* It depends on the ability of the cell to form new protoplast from nutrients available in the environment.
- \* The increase in bacterial cell number occurs by cell division which is known as binary fission.
- \* Binary fission begins when the DNA of the cell is replicated.
- \* Each circular strand of the DNA then attaches to the plasma membrane.
- \* The cell elongates causing the two replicated DNA to separate
- \* The plasma membrane then invaginates (grows inward) and splits the cell into two daughter cells through a process called cytokinesis.
- \* Bacteria segregate DNA as it replicates and lack a eukaryote-like mitotic apparatus for segregating chromosomes
- \* A few bacterial species reproduce by budding.