© FILAMENT → This is the long part that measures about 4 to 5 m·m long.
FUNCTION → Flagella form the organs of locomotion in motile bacteria.

IV) PILUS → It is also a surface appendage like flagella but it is shorter and straighter than the flagella. It consist of a kind of protein called Pillin. They have a thickness from 75 to 100 A°. The common type of Pilus is type 1, F-Pilus, etc. They are composed of protein called pili.
FUNCTION → The pili help in formation of conjugation bridge between sexually reproductive bacteria.

V) PLASMA MEMBRANE → This is an unit membrane found just below the cell wall. It is composed of lipoprotein.
FUNCTION →
(a) It provides an osmotic pressure.
(b) It contains electron system of bacteria.
(c) It also contain many specific transport systems, such as amino acid and numerous mineral ions.

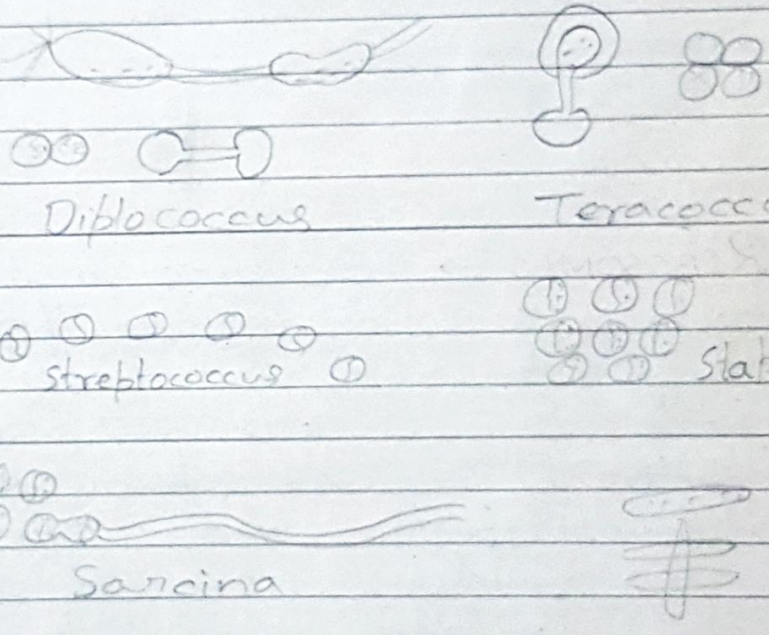
VI) MESOSOME → There are extention of the plasma membrane. They have been recorded only from gram +ve bacteria. They occur as sinuginated and folded structures

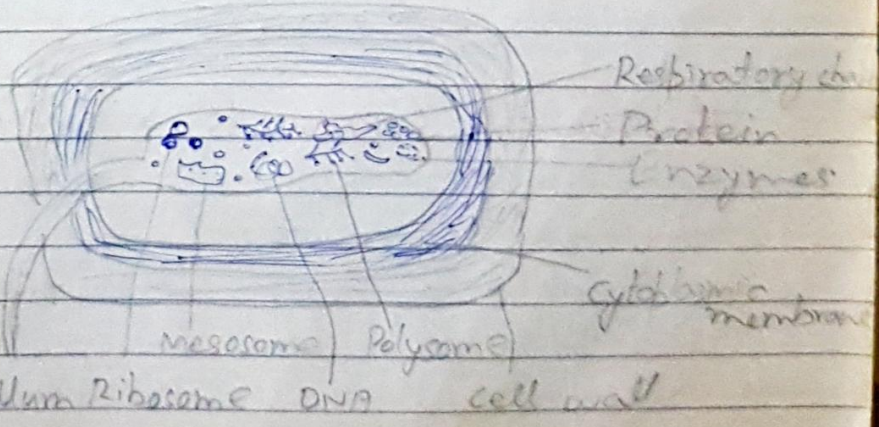
with many vesicus, tubes, lamellae whorl and others.

FUNCTION →

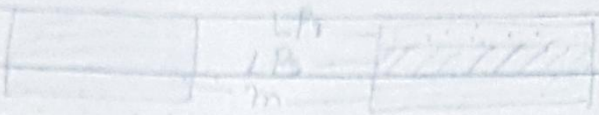
ⓐ They are belived to be the centre of the respiratory activities. They increase the surface area from transporting system of the cell.

ⓑ They initiate DNA replication and septum formation during cell division.



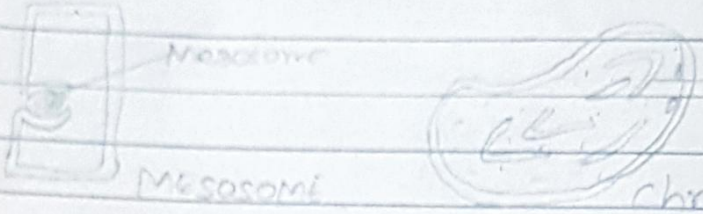


Surface layer of bacteria.



Gram +ve Gram (-ve)

The cell wall of Gram(+ve) & (-ve) bacteria



VII) RIBOSOMES → There are small particle measuring 100 A° in diameter. They are of 70S type in which the smaller and bigger sub-units are 30S and 50S respectively. The 30S subunit consists of 2 different protein and 3 types of RNA. The 50S subunit is made of 34 different protein and 2 types of RNA.
FUNCTION → This cell organisms help is synthesis of proteins.

VIII) STORAGE GRANULES → The bacterial cell cytoplasm contains the following types of storage granules.
ⓐ Organic Polymers - Polysaccharide lipid.
ⓑ Volutin granules - In organic metaphosphate granule

© Element of Sulphur - Sources of sulphate and phosphate.

⑦ Photosynthetic apparatus - Some bacteria like chlorobium, chromatium etc. are photosynthetic in nature. They are primitive types of photosynthetic apparatus. The chlomatophore spherical in shape. They are 300 A° in diameter. They contain coretonoid bacto chlorophyll bacteria and neccessory enzymes for photosynthesis.

FUNCTION → They help in food formation.

IX NUCLEOIDS → The bacterial genome is called nucleoid. It consist of a single ring of DNA, measures 1000 m long. It lacks nuclear membrane and nucleolus. It is known as chromatin body.

E. coli the nucleoid measure 1 m-m in length. It has about 5×10^3 genes which code for about 2×10^3 different enzymes.

FUNCTION → This structure controles the various cellular activities of bacteria.

CONCLUSION → The bacterial cell is prokaryotic in organisation but it has all functional particles of a cell. There is cell wall for protection of living contents. There is DNA for hereditary

functions. The cell also contents ri
for protein synthesis and mesoso
for ATP production. Further, chro
-phores help in carbon assimilation.
a primitive types of cells from
all eukaryotic cells have origina