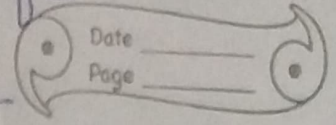


H.W.
14/5/21

The Fundamental Units of Life:

CELL



(1) Plant Cell

* The cell is enclosed by a cell wall.

* Plasmodesmata connect adjacent plant cell.

* Chloroplasts are present in this cell.

* Microvilli are absent.

* Starch is the reserved food.

Animal Cell

* The cell is enclosed by plasma membrane.

* Gap junctions connect adjacent animal cell.

* Chloroplasts are absent in this cell.

* Microvilli are present.

* Oil and glycogen are the reserved food.

(2) Prokaryotic cell

* They don't have nuclear membrane.

* They have one nucleoid

* Average diameter of these cells is 1-10 μm .

* No endoplasmic reticulum is present.

* They have 70S ribosomes.

Eukaryotic cell

* They have nuclear membrane.

* They have two nucleoids.

* Average diameter of these cells is 5-100 μm .

* Endoplasmic reticulum is present.

* They have 80S ribosomes.

NAME-HIMADRI NANDINI PATI

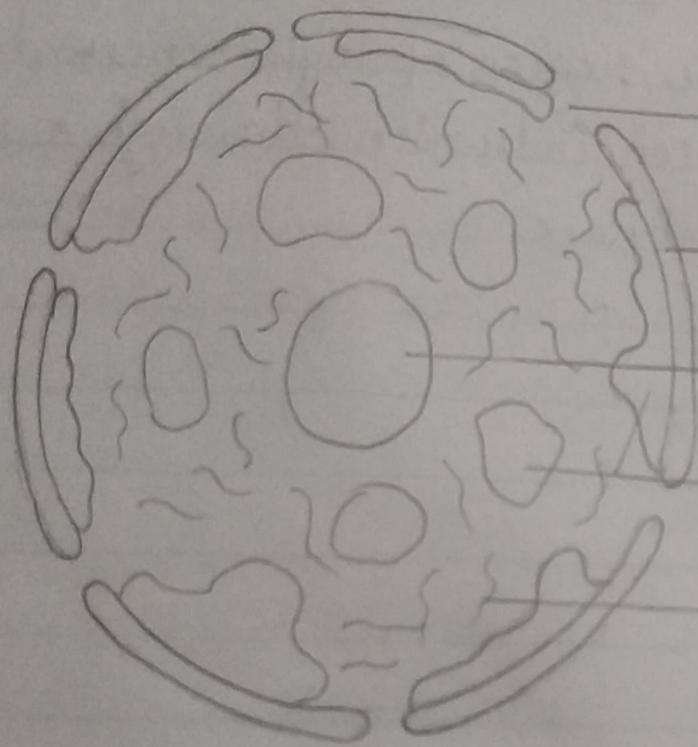
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- (3) If the plasma membrane ruptures or breakdown then the cell will not be able to exchange material from its surrounding by diffusion or osmosis. Thereafter the protoplasmic material will be disappeared and the cell will die.
- (4) Golgi apparatus has the function of storage modification and packaging of the products. If there is no golgi apparatus then the packaging and transporting of materials synthesized by cell will not happen.
- (5) Mitochondria is known as the powerhouse of the cell because these organelles help in production of energy in the form of ATP which is required for the various activities of the cell.
- (6) Lipids are synthesised in SER and the proteins are synthesised in RER.
- (7) The amoeba, when sees a food particle, produces false feet known as pseudopodia and surrounds the food. Then it engulfs the food by forming a food vacuole. Then it secretes certain digestive

enzymes inside the food vacuole. Then by these enzymes the food gets converted to simpler forms. In this way it gets its food.

(3) \oslash Osmosis is the process in which water molecules move from the region of high concentration to a region of low concentration through a semi permeable membrane.



NUCLEAR PORE

NUCLEAR MEMBRANE (BILAYER)

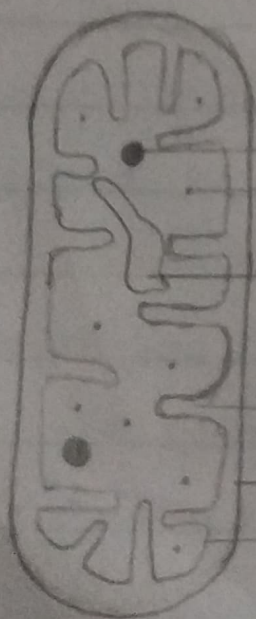
NUCLEOLUS

HETEROCHROMATIN

EUCHROMATIN

CHROMATIN

NUCLEUS



RIBOSOME
MATRIX

CIRCULAR DNA

CRISTA

OUTER MEMBRANE
INNER MEMBRANE

MITOCHONDRION

