

CELL : THE FUNDAMENTAL UNIT OF LIFE

QUESTION - ANSWER

1.

- | Animal Cell | Plant Cell |
|---|--|
| 1. Animal cell has no cell wall | ⇒ Plant cell has cell wall. |
| 2. Animal cell lacks plastid | ⇒ Plant cell has plastid. |
| 3. Animal cell has centrosome | ⇒ Plant cell lacks centrosome. |
| 4. Animal cell has small sized vacuoles | ⇒ Plant cell has large sized vacuoles. |

2.

- | Prokaryotic cell | Eukaryotic Cell |
|---|---|
| a) Prokaryotic cell has no organised nucleus i.e. no nuclear membrane around the nucleus. | ⇒ Eukaryotic cell has well organised nucleus i.e. nucleus has nuclear membrane around it. |
| b) It has no membrane bound organelles. | ⇒ It has membrane bound organelles. |
| c) Cell size is smaller as compared to Eukaryotic cell. | ⇒ Cell size is comparatively larger than prokaryotic cell. |
| d) Prokaryotic cell has 70s ribosomes | ⇒ Eukaryotic cell has 80s ribosomes. |
| e) Has DNA without associated protein. | ⇒ Has protein associated DNA. |

3.

If the plasma membrane of the cell ruptures or gets damaged, the cellular components are likely to come out of cell if it is badly damaged. If minor rupture is there, cell can automatically repair it.

4.

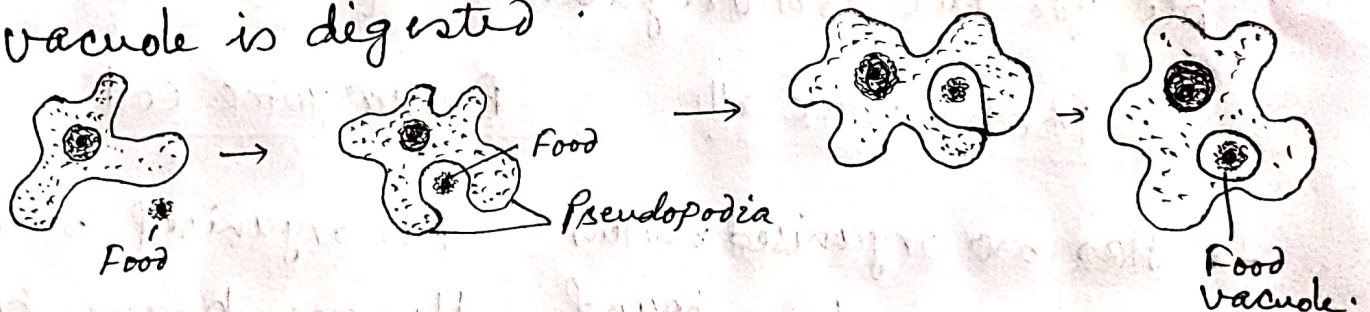
If there is no golgi apparatus in the cell, the cell cannot perform secretory function. Packaging of ~~tip~~ protein & carbohydrate, formation of lysosome

life functions won't be possible.

5. Mitochondria is the organelle which is considered as the powerhouse of the cell because it is the site where respiratory substrate, the glucose is oxidised and energy currency 'ATP' is produced.

6. Proteins & lipids constituting plasma membrane is synthesized by RER & SER respectively.

7. An amoeba catches its food with the help of its everchanging pseudopodia, traps it by the pseudopodia forming food vacuole which is taken inside the cell. Food vacuole so formed get separated from the plasma membrane and finally the food inside the vacuole is digested.



8. Osmosis is the phenomena in which there is flow of solvent or water molecule from higher concentration to lower concentration across the semi permeable membrane.