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Sub biology

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1. What would happen if the plasma membrane ruptures or breaks down?

If plasma membrane ruptures or breaks down then molecules of some substances will freely move in and out of the cells. As plasma membrane acts as a mechanical barrier, exchange of material from its surroundings through osmosis or diffusion in a cell won't take place. Consequently, the cell would die due to the disappearance of the protoplasmic material.

2. What would happen to the life of a cell if there was no Golgi apparatus?

The Golgi apparatus consists of stacks of membrane-bound vesicles whose functions are as follows:

- storage of substances
- packaging of substances
- manufacture of substances

Without the golgi apparatus, the cells will be disabled from packing and dispatching materials that were produced by the cells. The golgi apparatus is also involved in the formation of cells. Hence, in the absence of golgi apparatus, cells will not be produced.

3. Which organelle is known as the powerhouse of the cell? Why?

Mitochondria are known as the powerhouse of the cell. It is because it releases the energy required for different activities of life. Mitochondria releases energy in the form of ATP(Adenosine triphosphate) molecules, essential for numerous chemical activities of life. Hence ATP is often referred to as 'energy currency of the cell'.

4. Where do the lipids and proteins constituting the cell membrane get synthesised?

Lipids and proteins are synthesised in the ER [Endoplasmic Reticulum].

5. How does an Amoeba obtain its food?

Through the process of endocytosis, an Amoeba obtains its food. As its cell membrane is flexible enough, food particles are engulfed forming a food vacuole girdling it which is assisted by the pseudopodia. Amoeba secretes digestive enzymes to bring about digestion of the engulfed particle once food is trapped.

Here draw the diagram of Amoeba, how an amoeba get food?