

Functions of Mitochondria

- i) Power house of the cell, as they help in the manufacture of ATP.
- ii) Mitochondria help in the oxidation of fatty acids
- iii) Helps in fatty acid chain elongation.
- iv) These are also involved in protein synthesis
- v) Helps in lipid synthesis

Functions of Ribosomes

- i) Ribosomes are regarded as miniature factories for protein synthesis.
- ii) Ribosomes give protection to mRNA
- iii) Ribosomes give protection to the polypeptide chain.

Functions of Endoplasmic Reticulum

- i) ER give mechanical support to the cell
- ii) Help in the synthesis of proteins.
- iii) Helps in the synthesis of steroid and steroid hormones.
- iv) Helps in lipid synthesis.
- v) Helps in synthesis of nuclear membrane.
- vi) Helps in formation of microbodies
- v) Helps in detoxification of toxic substances.

Plasmolysis $\Rightarrow$ If a plant cell is placed in a highly concentrated sugar or salt solution (ie hypertonic solution) water from cell sap flows out due to exosmosis through the plasma membrane outside the cell. The loss of water from the cell sap causes contraction or shrinkage of the protoplast. Since the cell wall is firm and less elastic, it cannot keep pace with the contraction of plasma membrane. Ultimately the protoplasm separates from the cell wall as assumes spherical shape. This condition is called plasmolysis.