

RegNo:123 Section:A Answer:The mitochondria is the powerhouse of the cell.

RegNo:124 Section:A Answer:The main function of mitochondria is to produce energy in the form of adenosine triphosphate (ATP) for the cell through cellular respiration. They are also involved in other vital processes, including regulating cell death (apoptosis), calcium storage, and promoting cell growth and multiplication.

Primary functions

- **Energy production:**

Mitochondria are known as the "powerhouses" of the cell because they convert chemical energy from nutrients like glucose into ATP, the main energy currency for the cell. This is achieved through a process called cellular respiration.

- **Metabolic regulation:**

They help regulate the overall metabolic activity of the cell, including the metabolism of carbohydrates, fats, and proteins.

- **Cellular signaling:**

Mitochondria play a role in regulating calcium storage, which is essential for many cellular signaling pathways.

RegNo:201 Section:B Answer:Photosynthesis occurs in chloroplast.