

# NCERT Class VIII Science Solutions: Chapter 8-Cell Structure and Functions Part 7

## LONG ANSWER QUESTIONS

### Question 38:

Cells consist of many organelles, yet we do not call any of these organelles as structural and functional unit of living organisms. Explain.

### Answer:

Although cell organelles have specific structures and perform specific functions but they cannot be called structural and functional units of living organisms. This is so because they can perform their functions only when they are within a living cell. They cannot function outside the cell as an independent unit.

## CELLS AND STRUCTURES

**Cells** are the building blocks of all living things.

A living thing, or **organism**, has cells of different sizes and shapes.

There are three basic parts of all **plant** and **animal** cells:

- Cell membrane
- Cytoplasm
- And the nucleus

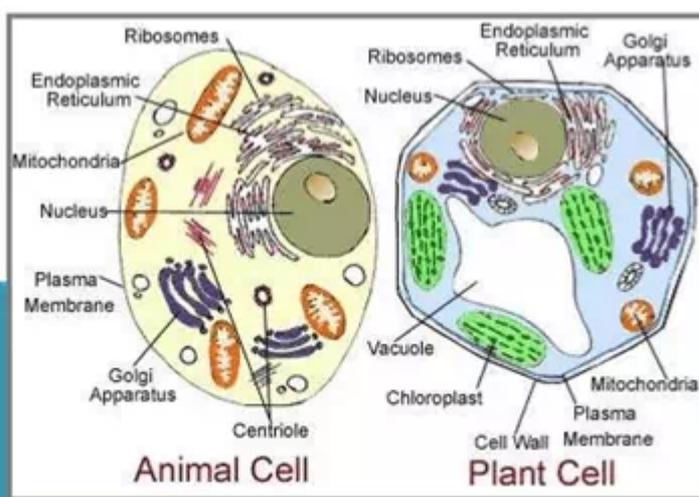
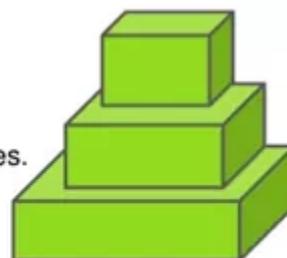


Image of Cells and Structure

### Question 39:

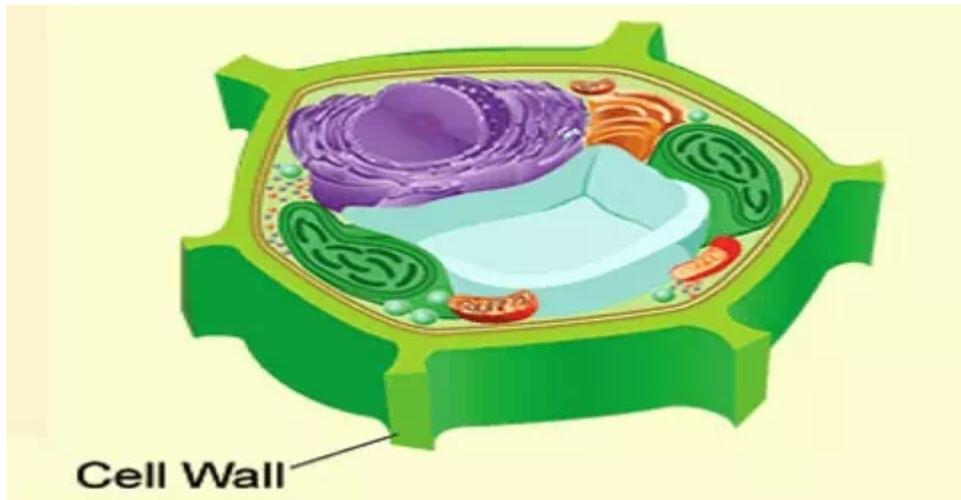
Why do plant cells have an additional layer surrounding the cell membrane? What is this layer known as?

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**Answer:**

The additional layer surrounding the cell membrane of plant cells is called cell wall.

As plants cannot move they need protection against variations in temperature, high wind speed, atmospheric moisture, etc. Therefore, for protection plant cell membrane. This layer is called the cell wall. Plant cells have an additional layer surrounding the cell membrane.



*Image of Cell Wall*

**Question 40:**

The size of the cells of an organism has no relation with the size of its body. Do you agree? Give reason for your answer.

**Answer:**

- I agree because of the cells in the body of an elephant is not necessarily bigger than those in a rat; it is not true that bigger organisms have cells of bigger size in their body.
- The size of the cell in an organism is related to the function to perform. For example, the nerve cell in both, the elephant and the rat is are long and branched. They perform the same function that of transferring messages.

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