



BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI-110034

CLASS 8 CORE ASSIGNMENT

CELL : STRUCTURE AND FUNCTIONS

Q1. Write a short account on discovery of cell.

A. Robert Hooke in 1665 observed slices of cork under a simple microscope. He noticed partitioned boxes or compartments in the cork slice. These boxes appeared like a honey-comb. Hooke coined the term 'cell' for each box.

Q2. Why is cell called the basic structural unit of life?

A. All living beings are made up of cells. Cell is the smallest living entity performing all life processes.

Q3. What is a cell?

A. Cell is the basic structural and functional unit of life.

Q4. What are cell organelles?

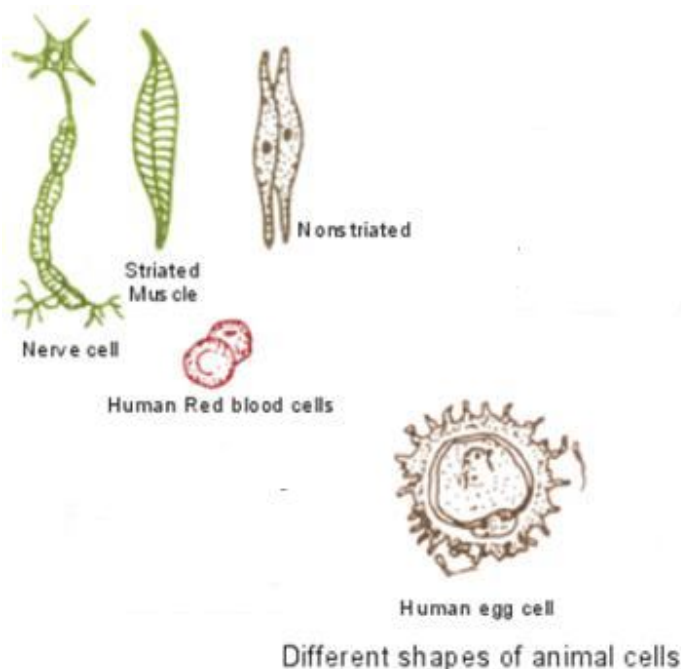
A. They are the small compartments in the cell specialized in their activities. E.g., chloroplast, mitochondria, vacuole.

Q5. Name the smallest and the largest living cell.

A. Smallest cell- bacteria largest cell- ostrich's egg

Q6. Cells vary in shape. Justify this statement by drawing three different cells of different shapes.

A.



A

Q7. Differentiate between:-

1. Unicellular and multicellular organisms

UNICELLULAR ORGANISM	MULTICELLULAR ORGANISM
1. organisms made up of single cell	1. Organisms made up of many cells.
2. All the life processes are done within the single cell	2. Such life processes are performed by specialised tissues

2. Cell wall and cell membrane

CELL WALL	CELL MEMBRANE
1. It is present only in plant cells.	1. It is present in both plants and animal cells.
2. It provides protection against various natural pressures.	2. It controls the entry and exit of various material
3. It provides rigidity to the shape of the cell.	3. It provides shape to plant and animal cells.

3. plant cell and animal cell

PLANT CELL	ANIMAL CELL
1. Cell wall is present.	1. Cell wall is absent.
2. Plastid are present	2. Plastids are absent.
3. Have one big, central vacuole.	3. Vacuoles are numerous and many.
4. Nucleus is shifted to a corner.	4. Nucleus is centrally located.

4. prokaryotic cell and eukaryotic cell

PROKARYOTIC CELL	EUKARYOTIC CELL
1. Nucleus is not well defined.	2. Nucleus is well defined with a nuclear membrane.
2. Bacteria and blue green algae are prokaryotes.	2. Fungi, animals, plants are all eukaryotes.

Q8. Name the parts of the nucleus and state the function of the nucleus.

A. Following are the parts of the nucleus:-

1. Nuclear membrane
2. Nucleolus
3. Chromosomes
4. Nucleoplasm

Q9. What is a gene?

A. It is the unit of inheritance, helping in transfer of characters from parents to the offspring.

Q10. What is the function of a cell wall in plant cells?

A. Plant cells have cell wall which is required for additional protection against variations in temperature, high wind speed, etc.

Q11. What are plastids?

A. They are small coloured bodies in the cytoplasm of the plant cells.

Q12. What are chloroplasts?

A. They are the green coloured plastids having chlorophyll in them. They provide green colour to the plants and help in photosynthesis.

Q13. Draw a well labeled diagrams of plant cell and animal cell.

