PSBB LEARNING LEADERSHIP ACADEMY BANGALORE CLASS WORK ASSIGNMENT LESSON: CELL STANDARD 8

I. Name the following:

- a) Structures present within a cell having a specific function: cell organelles
- b) Cell without membrane bound nucleus: Prokaryotic cell

II. Complete the analogy

- a) Lysosomes: <u>suicide bags</u> ::ribosomes: Protein factories
- b) Nerve cells: electrical impulses:: Ciliated muscles: keeps dust and germs away

III. Answer the following:

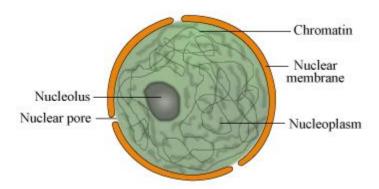
1. Why is plasma membrane called selectively permeable membrane?

Ans: Plasma membrane allows only substances needed by the cell to enter into it and substances that are not needed are allowed to go out. Hence, the cell membrane is called a selectively permeable membrane.

2. Differentiate between plant and animal cells.

PLANT CELLS	ANIMAL CELLS
They are large with a cell wall made up of cellulose	1. Cell wall is absent
Usually has a large vacuole sometimes there may be more than one vacuole.	 Vacuoles are absent. If present they are small and temporary, they may appear for a short time and then disappear.
3. Chloroplasts are present.	4. Chloroplasts are absent.

- 3. Draw the nucleus of a cell and label the:
 - a) Double layered membrane which encloses the nucleus.
 - b) Visible entangled mass of thread like structures.
 - c) A darkly stained round structure inside the nucleus



- 1. Give one function of the following:
- a) <u>Golgi apparatus</u>: these are stacks of membrane covered bags. They take the materials made in the ER package them and send them to the other parts of the cell.
- b) <u>Chromosomes:</u> They contain hereditary information about an organism. When the cells divide chromosomes pass on characters from one generation to another.
- 2. Mitochondria is called 'the power house of the cell'. Give reason (HW)