

WORKSHEET

CLASS- IX

CHAPTER- 1, Cell

A. Give reasons, why.

1. Raisins and dry apricots swell up when placed in a bowl containing water for sometime.
2. Chromatin, chromatid and chromosomes are related to each other.
3. Lysosomes are known as ' scavengers of the cells'.
4. Plant cells possess large sized vacuole.
5. Roots of plants have mostly leucoplasts in them than chloroplasts.

B. Name the organelles which show the analogy written as under.

1. Transporting channels of the cells. _____.
2. Digestive bag of the cell. _____.
3. Storage sacs of the cells. _____.
4. Control room of the cell. _____.
5. Kitchen of the cell. _____.
6. Powerhouse of the cell. _____.
7. Packing & dispatching unit of the cell. _____.

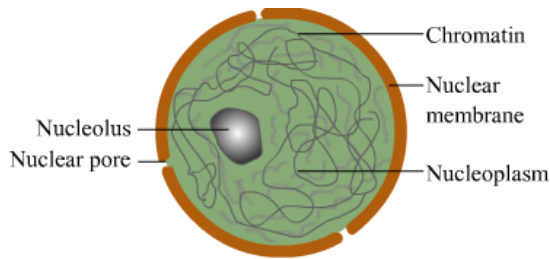
C. Multiple choice questions.

1. Select the odd one out
 - a. Membranes are made of organic molecules like proteins and lipids.
 - b. Molecules soluble in organic solvents can easily pass through membranes.
 - c. Plasma membranes contain chitin sugar in plants.
 - d. Movement of water across a semipermeable membrane is affected by the amount of substances dissolved in it.
2. Cell organelles without a cell membrane are
 - a. Nucleus
 - b. Chloroplasts
 - c. Ribosomes
 - d. Golgi apparatus
3. The proteins essential for building the cell membrane are manufactured by
 - a. Rough endoplasmic reticulum
 - b. Plasma membrane
 - c. Mitochondria
 - d. Golgi apparatus
4. Silver nitrate solution is used to study
 - a. Endoplasmic reticulum
 - b. Nucleus
 - c. Golgi apparatus
 - d. Mitochondria
5. Plasmolysis in a plant cell is defined as

- a. breakdown of plasma membrane in hypotonic medium
 - b. Shrinkage of cytoplasm in hypertonic medium
 - c. Shrinking of nucleoplasm
 - d. None of them
6. Amoeba acquires its food through this process
- a. exocytosis
 - b. endocytosis
 - c. plasmolysis
 - d. Both a & b
7. Cell arises from pre-existing cell was stated by
- a. Haeckel
 - b. Virchow
 - c. Hooke
 - d. Schleiden
8. When you keep raisins in hypotonic solution, endosmosis occurs that continues till
- a. cells are fully turgid
 - b. cells burst
 - c. two hours
 - d. You keep them in solution
9. The stain used to make temporary mount of human cheek cells
- a. Safranin
 - b. Methylene blue
 - c. Xylene
 - d. Iodine
10. These contain their own DNA and ribosomes
- a. Mitochondria
 - b. Golgi apparatus
 - c. Plastids
 - d. a & c

D. Higher order Thinking Skills.

1. A person with swollen gums rinses his mouth with lukewarm salt water and swelling of his gums decreases. This is because
- a. The gums absorb the salt water solution.
 - b. The salt water solution lowers the temperature of the water in the gums.
 - c. The salt in the solution moves against the concentration gradient.
 - d. The water in the gums moves out due to high concentration of salt in the solution.
2. Ritika observed onion peel cells in the lab and could view the cell wall, cytoplasm and nucleus clearly. Suddenly her friend spilled a few drops of salty water on the slide having onion peel cells. She observes some changes in the cells after sometime
- a. What changes would have been observed by Ritika?
 - b. Name the process that caused the changes in the cells.
 - c. Would there be similar changes observed ,if she had prepared a slide of cheek cells?



Structure of a Nucleus

3. Look at the diagram carefully
 - a. Which part of the above diagram can carry the 'hereditary material'?
 - b. Who discovered the nucleus for the first time?
 - c. Why is it called the 'control centre' of the cell ?
4. If you are provided with some vegetables to cook, you generally add salt into the vegetables during the cooking process.
 - a. What happens to the vegetables after adding salt ?
 - b. Which mechanism is responsible for the changes? Explain.
5. Why does the skin of your mother's fingers shrink when she washes clothes for a long time?
 - a. What is responsible for these changes?
 - b. Explain the process in brief.