



1. A cell will swell up if

- (a) The concentration of water molecules in the cell is higher than the concentration of water molecules in the surrounding medium.
- (b) The concentration of water molecules in the surrounding medium is higher than the concentration of water molecules in the cell.
- (c) The concentration of water molecules is same in the cell and in the surrounding medium
- (d) The concentration of water molecules does not matter.

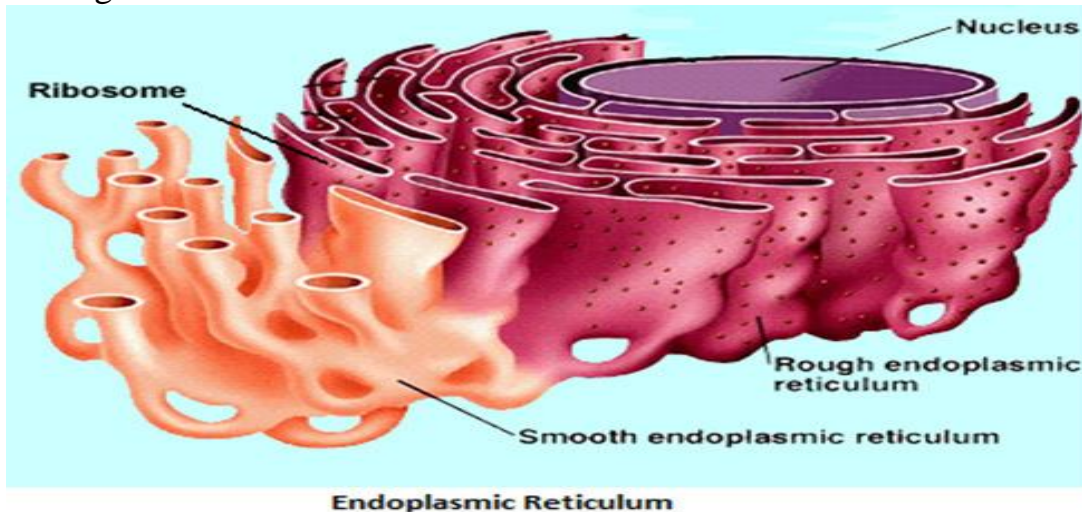
Answer: _____

2. Which of the following statement marks as a difference between plant cell and animal cell?

- (a) Plant cells have cell wall which animal cells do not.
- (b) Plant cells do not have vacuole while animal cells do have.
- (c) Plant cells have only cell membrane while animal cells have both cell wall as well as cell membrane.
- (d) Plant cells have more plastids while animal cells have few plastids.

Answer: _____

3. Endoplasmic reticulum one of the cell organelles, exists as a membranous network that extends from outer membrane of nucleus to the plasma membrane making a connection between them.



Which of the following statements is not related to the endoplasmic reticulum?

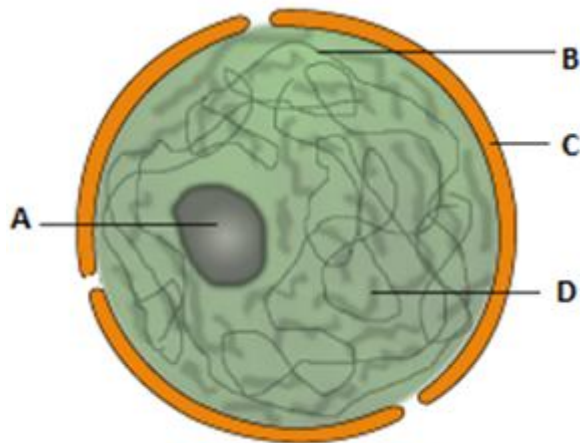
- (a) It behaves as transport channel for proteins between nucleus and cytoplasm.
- (b) It transports materials between various regions in cytoplasm.
- (c) It can be the site of energy generation.
- (d) It can be the site of some biochemical activities of the cell.

Answer _____.

4. Osmosis is a process by which molecules of a solvent tend to pass through a semipermeable membrane from a less concentrated solution into a more concentrated one. Can you pick out the option among the following which does not belong to this process?

- (a) The movement of water across a semipermeable membrane is affected by the amount of substances dissolved in it.
- (b) Membranes are made of organic molecules such as proteins and lipids.
- (c) Molecules soluble in organic solvents can easily pass through the membrane.
- (d) Plasma membranes contain chitin sugar in plants.

Answer _____ **5.** The nucleus controls all the activities of the cell and acts as a site of DNA material and protein synthesis. It is composed of some components which all together give the nucleus its functionality. Here is shown a figure of nucleus with some of its components labeled as A, B, C and D. can you name these components correctly?



Structure of Nucleus

- (a) A – Nucleons; B – Chromatin; C – Nuclear membrane; D – Nucleoplasm
- (b) A – Nucleus; B – Chromatin; C – Nuclear membrane; D – Nucleoplasm
- (c) A – Nucleolus; B – Chromatin; C – Nuclear membrane; D – Nucleoplasm
- (d) A – Nucleolus; B – Chromatin; C – Nuclear membrane; D – Nuclear wall

Answer:

6. You must have observed that a fruit when unripe is green but it becomes beautifully coloured when ripe. According to you what is the reason behind this colour change.

- (a) Chloroplasts change to chromoplasts
- (b) Chromoplasts change to chromosomes
- (c) Chloroplasts change to chromosomes
- (d) Chromoplasts change to chloroplasts

Answer: _____

7. Rahul's mother was going to make pickle. For this she cut the vegetables into small pieces and put them in the sun for few hours. Rahul was observing all her activities very curiously and asked his mother if why she had put the salted vegetables in the sun. among the following what might be the most appropriate answer for his question?

- (a) So that the pickle may get extra flavour.
- (b) So that the cut vegetables may absorb the vitamin d as a nutrient from the sun rays.
- (c) So that the vegetables may lose all the water by diffusion and evaporation and become dry.
- (d) So that the salt may get evenly and properly absorbed by the vegetables.

Answer: _____

8. The process of plasmolysis in plant cell is defined as:

- (a) Breakdown of plasma membrane in hypotonic solution.
- (b) Shrinkage of cytoplasm in hypertonic medium.
- (c) Shrinkage of Nucleoplasm.
- (d) None of these.

Answer: _____

9. Mitochondria are the sites of respiration in the cell. They oxidize carbohydrates and fats present in the cell to produce carbon dioxide, water and a lot of energy. The energy so released is stored in the form of ATP molecules. Since mitochondria in the cell are used to synthesize energy so, they are also called:

- (a) Energy currency of the cell
- (b) Energy generator of the cell
- (c) Kitchen of the cell
- (d) Power house of the cell

Answer: _____

10. Cell is the structural and functional unit of life. The word cell is derived from the Latin word 'cellula' which means "a little room". Can you name the scientist who coined the term cell?

- (a) Robert Hooke

- (b) Anton Von Leeuwenhoek
- (c) Robert Brown
- (d) Ernst Haeckel

Answer: _____

11. In a test, a teacher collected the answers written by four students as the definition of osmosis as given below. Read carefully and select the correct one.

- (a) Movement of water molecules from a region of higher concentration to a region of lower concentration through a semipermeable membrane.
- (b) Movement of solvent molecules from its higher concentration to lower concentration.
- (c) Movement of solvent molecules from higher concentration to lower of solution through a permeable membrane.
- (d) Movement of solute molecules from lower concentration to higher concentration of solution through a semipermeable membrane.

Answer: _____

12. Among the following statements which one is incorrect?

- (a) Golgi apparatus is involved with formation of lysosomes.
- (b) Nucleus, mitochondria and plastid have DNA, hence they are able to make their own structural proteins.
- (c) Lysosomes are called the suicide bags as they eat up their own cells.
- (d) Cytoplasm is called known as protoplasm.

Answer: _____.

13. Anjali wanted to eat rice and kidney bean (rajmah). She requested her mother to cook the same on next day. At night her mother took a cup of kidney beans and put them in a container having some water and the kept the container covered overnight. Next day it was observed that the kidney beans got swollen and were ready to be cooked. What is this phenomenon due to which kidney beans got swollen is known as?

- (i) Osmosis
- (ii) Diffusion
- (iii) Endosmosis
- (iv) Exosmosis

Choose the correct option among the following:

- (a) Only (iii)
- (b) Both (i) and (iii)
- (c) Both (i) and (iv)
- (d) Only (i)

Answer: _____

14. A vacuole is a space or cavity within the cytoplasm of a cell, enclosed by a membrane and typically containing fluid. They are a kind of storage sacs that are very large sized in plant cell as compared to that in the animal cell.

Which among the following is not a function of the vacuole?

- (a) They help to store the toxic metabolic by-products of the plant cell.
- (b) They provide turgidity and rigidity to the plant cell.
- (c) They help to maintain the osmotic pressure in the cell.
- (d) They help the plant in its growth by the process of cell division.

Answer: _____

15. The proteins and lipids, essential for building the cell membrane, are manufactured by:

- (a) Endoplasmic reticulum
- (b) Golgi apparatus
- (c) Mitochondria
- (d) Peroxisomes

Answer: