

1. **Which plastids are colourless?**
 - a. Chromoplasts
 - b. Chloroplast
 - c. Leucoplasts
 - d. All of the above
 - e. None of the above
2. **An unripe green fruit changes colour when it ripens. The reason being:**
 - a. Chromoplasts changes to chlorophyll
 - b. Chromoplasts changes to chromosomes
 - c. Chromosomes changes to chromoplasts
 - d. Chloroplast changes to chromoplasts
 - e. None of the above
3. **The phenomenon where cytoplasms shrink in a hypertonic medium is called:**
 - a. Frontolysis
 - b. Plasmolysis
 - c. Acidolysis
 - d. Allolysis
 - e. None of the above
4. _____ **is called the energy currency of the cell**
 - a. Endoplasmic reticulum
 - b. Oxygen
 - c. ATP
 - d. Mitochondria
 - e. None of the above
5. _____ **is called the powerhouse of the cell**
 - a. Mitochondria
 - b. ATP
 - c. Lysosomes
 - d. Red blood cells
 - e. None of the above
6. _____ **coined the term "cell."**
 - a. Gorbachev
 - b. Himmler
 - c. Robert Hooke
 - d. Anton Von Leeuwenhoek
 - e. None of the above
7. **Which of the following statements is incorrect?**
 - a. Cytoplasm is also known as protoplasm
 - b. Lysosomes are known as the suicide bags of the cell
 - c. Mitochondria has its own DNA
 - d. All of the above are incorrect
 - e. None of the above
8. **Which of the following is not a function of the vacuole in plants?**
 - a. They store toxic metabolic wastes

- b. They help with the process of cell division
 - c. They help to maintain turgidity
 - d. They provide structural support
 - e. None of the above
9. **Where are the essential proteins and lipids required for cell membrane, manufactured?**
- a. Lysosome
 - b. Chromosomes
 - c. Endoplasmic reticulum
 - d. Mitochondria
 - e. None of the above
10. **The process by which water moves through a semi-permeable membrane from a region of high concentration to a region of lower concentration, thereby equalizing water concentration is called:**
- a. Evaporation
 - b. Diffusion
 - c. Osmosis
 - d. All of the above
 - e. None of the above

11. 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.

12. 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.

13. 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.

14. 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

15. 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.

16. 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.

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

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

18. 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.

19. 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 she 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)

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.

20. 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.

21. Which of the following tissues has dead cells?

- (a) Parenchyma
- (b) Sclerenchyma
- (c) Collenchyma
- (d) Epithelial tissue

22. Girth of stem increases due to

- (a) apical meristem
- (b) lateral meristem
- (c) intercalary meristem
- (d) vertical meristem

24. Which cell does not have perforated cell wall?

- (a) Tracheids
- (b) Companion cells
- (c) Sieve tubes
- (d) Vessels

25. Draw the structure of-

- a. Nucleus, b. Mitochondria c. Plastid d. Parenchyma tissue e. Collenchyma tissue d. Sclerenchyma tissue e. Components of xylem f. Components of phloem g. Structure of chromosome.

