



INDIAN SCHOOL AL BURAIMI
BIOLOGY REVISION WORKSHEET

NAME:

STD: IX
WORKSHEET NO.4

I. Multiple-type questions:

1. Plasmolysis in a plant cell is defined as –
(a) Break down of plasma membrane in hypotonic medium (b) Shrinkage of nucleoplasm
(c) Shrinkage of cytoplasm in hypertonic medium (d)) None of these
2. The ‘Cell theory’ was proposed by –
(a) Mendal and Morgan (b) Watson and crick
(c) Schleiden and Schwann (d) Darwin and Wallace
3. The site of cellular respiration is –
(a) Golgi apparatus (b) Nucleus (c) Stomata (d) Mitochondrion
4. Amoeba acquires its food through a process, termed
(a) Exocytosis (b) endocytosis (c) Plasmolysis (d) Exocytosis and endocytosis both
5. Which of these types of cells is most likely to divide?
(a) Epidermis (b) Parenchyma (c) Meristem (d) Xylem
6. Companion cells are associated with –
(a) Sieve tubes (b) Sclerenchyma (c) Vessels (d) Parenchyma
7. Which tissue has chloroplast in cells?
(a) Parenchyma (b) Chlorenchyma (c) Sclerenchyma (d) Aerenchyma
8. The meristematic tissue is found
(a) In flowers (b) At the tip of the leaves (c) Below the epidermis of stem (d) At root tip
9. You have been provided with narrow thick – walled living cells, elongated in shape and possessing thickening of cellulose and pectin. These cells belong to :–
(a) Parenchyma (b) collenchyma (c) sclerenchyma (d) none of the above
10. Which one of the following is the correct definition of the tissues?
(a) Group of dissimilar cells which perform similar function
(b) Group of similar cells which perform similar functions.
(c) Group of similar cells which perform specific functions
(d) Group of dissimilar cells which perform different functions.
11. A long tree has several branches. The tissue that helps in the sideways conduction of water in the branches is:
(a) collenchyma (b) xylem parenchyma (c) parenchyma (d) xylem vessels

II. Answer the following:

12. Differentiate between the plasma membrane and cell wall.
13. List any four salient features of meristematic tissue.
14. State the constituents of phloem? How does cork act as a protective tissue?

15. State the technical term for a medium which has exactly the same concentration as the cell?
Why does the size of the cell remain the same when placed in such a solution?
16. Name the element(s) of xylem which
 - (i) Help in transport of water and minerals, (ii) stores food and (iii) provides mechanical support
17. Describe the role played by the Lysosomes. Why these are termed as suicidal bags?
How do they perform their function?
18. Name the plastid which stores starch, oils and protein granules.
19. Mention any two functions of Golgi apparatus.
20. In a temporary mount of a leaf epidermis we observe small pores.
 - (a) What are the pores present in leaf epidermis called?
 - (b) How are these pores beneficial to the plant?
21. (a) Write the location and function of collenchyma tissue.
(b) Draw a diagram of collenchyma tissue and label its any four parts.
22. What is endocytosis? Give one example.
23. Show the diagrammatic representation of the location of intercalary meristem and lateral meristem in plant. Name the meristem which is responsible for the increase of girth of root?
24. State in brief any three roles of epidermis in plants?
25. Differentiate between diffusion and osmosis. Write any two examples where a living organism uses osmosis to absorb water.
26. Why is plasma membrane called semi-permeable membrane? Write one function of it.
27. What is the chemical substance that makes the cells of the sclerenchyma hard? Mention where this tissue is likely to be present?
28. Define the term 'tissue'. Differentiate between simple permanent tissue and complex permanent tissue in plants. Name the tissue which (a) allows aquatic plants to float (b) provides flexibility to plants
29. Write the names of two organelles that contain their own genetic material? Draw a labelled diagram of prokaryotic cell?
30. Why is osmoregulation necessary in aquatic organisms?
31. What is a gene? What is its chemical composition and function?
32. What are different types of Endoplasmic reticulum? Write their function
33. Draw a plant cell and label the parts that –
 - (a) Synthesize food (b) produce energy
 - (c) Store house of organic substances like protein, organic acids
 - (d) Packages material coming from endoplasmic reticulum
 - (e) Determine function and development of the cell.
34. If you are provided with some vegetables to cook, we generally add salt to the vegetables during cooking process. After adding salt, vegetables releases water. What mechanism is responsible for this?
35. Define the process of differentiation.
36. Differentiate between parenchyma and collenchyma.
37. Water hyacinth floats on water surface. Explain how?