



Class 9 Science | Cell: The Building Block Of Life

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. A fresh leaf cell placed in concentrated salt solution loses water mainly by:

- A. Cell division
- B. Osmosis
- C. Active transport of salt only
- D. Photosynthesis

2. Which structure is present in a bacterium but not as a membrane-bound organelle?

- A. Mitochondrion
- B. Nucleoid
- C. Golgi body
- D. Chloroplast

3. A cell makes many digestive enzymes. Which structure directly synthesises these proteins?

- A. Cell wall
- B. Smooth ER
- C. Ribosomes
- D. Vacuole

4. A plant cell remains firm in dilute solution chiefly because its wall:

- A. Pumps salt outward
- B. Resists excessive expansion
- C. Stops all water entry
- D. Produces ATP

5. Which cell component contains chlorophyll for photosynthesis?

- A. Chloroplast
- B. Lysosome
- C. Golgi body
- D. Nucleolus

6. Damage to mitochondria most directly reduces:

- A. Aerobic ATP production
- B. Chromosome number
- C. Cellulose formation in the wall only
- D. Light absorption

7. Which pair occurs in both typical plant and animal cells?

- A. Chloroplasts and centrioles
- B. Cell wall and chloroplasts
- C. Large central vacuole and cell wall
- D. Plasma membrane and mitochondria

8. A secreted protein is modified and packaged mainly by the:

- A. Chloroplast
- B. Cell wall
- C. Central vacuole
- D. Golgi apparatus

9. A membrane allows some substances through more readily than others. It is:

- A. Freely permeable to everything
- B. Completely impermeable
- C. A rigid cell wall
- D. Selectively permeable

10. Which organelle helps digest worn-out cell components?

- A. Nucleolus
- B. Lysosome
- C. Ribosome
- D. Chloroplast

11. Which process usually produces two cells with the parental chromosome number?

- A. Mitosis
- B. Fertilisation
- C. Meiosis
- D. Pollination

12. A diploid cell has 24 chromosomes. A normal gamete formed by meiosis has:

- A. 48
- B. 6
- C. 12
- D. 24

13. Uncontrolled cell division is a key feature of:

- A. Diffusion
- B. Transpiration
- C. Cancer
- D. Osmosis

14. Which material carries hereditary instructions in chromosomes?

- A. Water
- B. DNA
- C. Starch
- D. Cellulose

15. Carbon dioxide moves out of a cell down its concentration gradient by:

- A. Plasmolysis
- B. Mitosis
- C. Fertilisation
- D. Diffusion

ANSWER KEY — check after completing all 15 questions

1.B 2.B 3.C 4.B 5.A 6.A 7.D 8.D 9.D 10.B 11.A 12.C 13.C 14.B 15.D