

Cell Differentiation & Specialized Cells Test

Part I - Multiple Choice: *Choose the best answer for each question.*

1. What is cell differentiation?
 - A. Cells dividing into two identical cells
 - B. The process by which cells become specialized
 - C. Cells dying naturally
 - D. The movement of cells through the body
2. Which type of cell can develop into many different kinds of cells?
 - A. Muscle cell
 - B. Nerve cell
 - C. Stem cell
 - D. Blood cell
3. What is the main function of red blood cells?
 - A. Carry oxygen
 - B. Fight infection
 - C. Produce hormones
 - D. Send signals
4. Which specialized cell sends messages throughout the body?
 - A. Skin cell
 - B. Nerve cell
 - C. Bone cell
 - D. Fat cell
5. Muscle cells are specialized to help the body:
 - A. Digest food
 - B. Pump blood only
 - C. Move
 - D. Store oxygen
6. Which structure helps sperm cells swim?
 - A. Nucleus
 - B. Chloroplast
 - C. Flagellum
 - D. Cell wall
7. White blood cells are important because they:
 - A. Carry oxygen
 - B. Protect the body from disease
 - C. Help digest food
 - D. Build muscles
8. Which cell is specialized to absorb water and nutrients in plants?
 - A. Root hair cell
 - B. Guard cell
 - C. Red blood cell
 - D. Nerve cell
9. Differentiated cells usually have:
 - A. The same function
 - B. Different structures and functions
 - C. No nucleus
 - D. No membrane
10. Which of the following is an example of a specialized animal cell?
 - A. Stem cell
 - B. Root hair cell
 - C. Leaf cell
 - D. Red blood cell

Part II - Fill in the Blank: Use the word bank to complete the sentences.

Word Bank

Specialized stem cells oxygen neurons muscle
differentiation root hair infection flagellum function

11. Cell _____ is the process where cells become different types.
12. _____ can become many kinds of cells in the body.
13. Red blood cells carry _____ throughout the body.
14. Nerve cells are also called _____.
15. A sperm cell uses its _____ to move.
16. White blood cells help fight _____.
17. Muscle cells are designed to help with body _____.
18. Root hair cells increase the surface area of the plant's _____.
19. Specialized cells have a specific _____ to perform.
20. Cells become _____ as they mature.

Part III - True or False: Write T or F

21. ____ - All cells in the body perform the exact same job.
22. ____ - Stem cells can develop into different types of cells.
23. ____ - Red blood cells help carry oxygen.
24. ____ - Nerve cells help transmit messages in the body.
25. ____ - Muscle cells are specialized for movement.
26. ____ - Plant cells cannot become specialized.
27. ____ - White blood cells help defend the body against disease.
28. ____ - Sperm cells are specialized reproductive cells.
29. ____ - Differentiation occurs only in plants.
30. ____ - Specialized cells have structures that help them do their jobs better.