

Stem cells and Functions of life

1. Which of the following statements is **not** one of the three tenets of the cell theory?

- A) All living organisms are composed of one or more cells.
- B) Cells are the basic unit of structure and function in living organisms.
- C) Cells can only arise from pre-existing cells by cell division.
- D) Cells can perform all the functions of life independently.

2. What is the name of the process by which cells can arise from pre-existing cells by cell division?

- A) Mitosis
- B) Meiosis
- C) Cellular Fission
- D) Cellular Fusion

3. Which of the following cells have configurations atypical to most cells?

- A) Straightened muscle cell
- B) Large Algae Bloom cells
- C) Aseptate hypha cells
- D) *Scenedesmus*

4. What are stem cells?

- A) Cells that divide numerous times and have a specific function
- B) Cells that can divide indefinitely and differentiate into various cell types
- C) Cells that can produce flowers and fruits
- D) Cells that can store energy and release it when needed

5. Which of the following conditions can be treated with embryonic stem cells

- A) Retinal degeneration
- B) Cancer of the bone
- C) Sickle cell anemia
- D) Cystic fibrosis

6. Which are two main types of stem cells?

- A) Prokaryotic and eukaryotic stem cells
- B) Somatic and germinal stem cells
- C) Embryonic and adult stem cells
- D) Red and white stem cells

7. What is the term for the ability of living organisms to maintain a stable internal environment despite external changes?

- A) Homeostasis
- B) Metabolism
- C) Nutrition
- D) Reproduction

8. What is the term for the enzyme catalyzed reactions that occur within living cells to provide energy and synthesize biomolecules?

- A) Homeostasis
- B) Metabolism
- C) Nutrition
- D) Reproduction

9. Which of the following is not a function of life that *Chlorella* performs?

- A) Metabolism
- B) Reproduction
- C) Response
- D) Movement

10. What is the main function of contractile vacuoles in *Euglena*?

- A) To regulate water
- B) To produce food
- C) To regulate pH
- D) To digest food