

## Cell Theory Quiz PDF

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**Why is the understanding of cell structure important for studying diseases like cancer?**

**Discuss the impact of cell theory on medical research and biotechnology.**

**How does the process of mitosis differ from meiosis in terms of outcomes and purpose?**

**Which scientists contributed to the development of cell theory? (Select all that apply)**

Matthias Schleiden

- Theodor Schwann
- Albert Einstein
- Rudolf Virchow

**Explain the significance of the cell theory in modern biology.**

**Describe the differences between prokaryotic and eukaryotic cells.**

**What is the primary function of ribosomes?**

- Lipid synthesis
- Protein synthesis
- DNA replication
- Energy production

**Which organelle is involved in modifying and packaging proteins?**

- Endoplasmic Reticulum
- Golgi Apparatus
- Lysosome
- Nucleus

**Which of the following organelles are found in plant cells? (Select all that apply)**

- Chloroplasts

- Mitochondria
- Ribosomes
- Centrioles

**Which scientist is known for co-developing the cell theory?**

- Robert Hooke
- Albert Einstein
- Theodor Schwann
- Charles Darwin

**Who is credited with the statement "All cells arise from pre-existing cells"?**

- Matthias Schleiden
- Theodor Schwann
- Rudolf Virchow
- Louis Pasteur

**What role do mitochondria play in cellular metabolism?**

**Which organelle is responsible for energy production in the cell?**

- Chloroplast
- Ribosome
- Mitochondria
- Golgi Apparatus

**Which of the following are components of the cell theory? (Select all that apply)**

- All living organisms are composed of cells.
- Cells are the basic unit of life.
- Cells arise spontaneously.

- All cells come from pre-existing cells.

**What is the basic unit of structure and function in living organisms?**

- Tissue  
 Organ  
 Cell  
 Organism

**What process results in two identical daughter cells?**

- Meiosis  
 Binary fission  
 Mitosis  
 Fertilization

**Which processes are involved in cell division? (Select all that apply)**

- Mitosis  
 Meiosis  
 Photosynthesis  
 Binary fission

**Which of the following are true about eukaryotic cells? (Select all that apply)**

- They have a nucleus.  
 They lack membrane-bound organelles.  
 They are typically larger than prokaryotic cells.  
 They include plant and animal cells.

**What are the functions of the cell membrane? (Select all that apply)**

- Energy production  
 Protection  
 Regulation of material transport  
 DNA replication

**Which type of cell lacks a nucleus?**

- Eukaryotic

- Prokaryotic
- Plant
- Animal