

## Instructions

Read through the information provided about human cell structure and complete the exercises below. Use the space provided to write your answers.

### Understanding Human Cell Structure

Human cells are the basic building blocks of the body. Each cell has various parts called organelles that perform different functions. Here are some key components:

- **Nucleus:** The control center of the cell that holds DNA.
- **Cytoplasm:** A jelly-like substance where organelles are located.
- **Cell Membrane:** The outer layer that protects the cell and controls what enters and leaves.
- **Mitochondria:** The powerhouse of the cell, producing energy.
- **Ribosomes:** Tiny structures that create proteins necessary for cell function.
- **Endoplasmic Reticulum:** A network of membranes involved in protein and lipid synthesis.
- **Golgi Apparatus:** Modifies, sorts, and packages proteins for secretion or use within the cell.

### Exercise 1: Match the Organelle

Match each organelle with its correct function by writing the letter in the blank space provided.

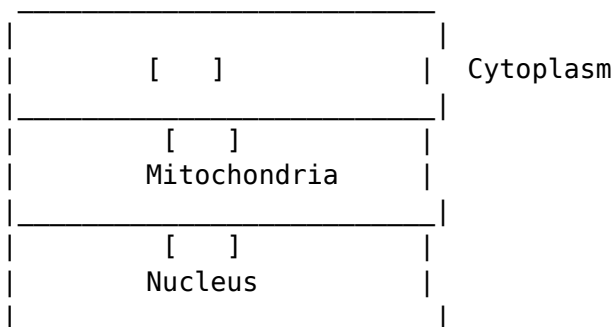
- Nucleus - \_\_\_\_\_ (A: Produces energy, B: Modifies proteins, C: Control center)
- Mitochondria - \_\_\_\_\_ (A: Produces energy, B: Modifies proteins, C: Control center)
- Golgi Apparatus - \_\_\_\_\_ (A: Produces energy, B: Modifies proteins, C: Control center)

### Exercise 2: Label the Cell Diagram

Below is a simple diagram of a cell. In the spaces provided, label each part of the cell using the terms from the list below:

- Nucleus
- Mitochondria
- Cell Membrane
- Cytoplasm
- Golgi Apparatus
- Ribosomes

[    ] Cell Membrane



### Exercise 3: Short Answer

1. What is the function of ribosomes in a human cell?

2. Why is the mitochondria often referred to as the powerhouse of the cell?

### **Conclusion**

Cells are essential for all living organisms, and understanding their structure can help us learn more about how our bodies work.