



# Questions for Oral Answers

1. **What are the main components of the human genome? -**  
**Chromosomes, genes, and non-coding DNA.**
2. **What is the difference between a gene and an allele? -**  
**A gene is a segment of DNA that codes for a protein, while an allele is a variant form of a gene.**
3. **What is the central dogma of molecular biology? -**  
**Information flows from DNA to RNA to protein.**
4. **What is the role of the ribosome in protein synthesis? -**  
**The ribosome is a complex of RNA and protein that facilitates the translation of mRNA into a polypeptide chain.**
5. **What is the difference between a mutation and a polymorphism? -**  
**A mutation is a change in the DNA sequence that can be harmful, while a polymorphism is a common variation in the DNA sequence.**
6. **What is the function of the cell cycle? -**  
**The cell cycle is a series of events that lead to the division of a cell into two daughter cells.**
7. **What is the role of the cell membrane? -**  
**The cell membrane is a barrier that separates the cell from its environment and regulates the movement of substances in and out of the cell.**

**What is the function of the cell cycle? -**  
**The cell cycle is a series of events that lead to the division of a cell into two daughter cells.**

**What is the function of the cell membrane? -**  
**The cell membrane is a barrier that separates the cell from its environment and regulates the movement of substances in and out of the cell.**