

Foundations of Genetics

Genetics · Practice Test · 8 Questions

1. Which molecule carries the genetic instructions for the development and function of living organisms?

- A) Protein
- B) DNA
- C) Lipid
- D) Carbohydrate

2. In a cell, where is the majority of the genetic material located?

- A) Mitochondria
- B) Ribosome
- C) Nucleus
- D) Cytoplasm

3. What is the term for a specific segment of DNA that codes for a particular trait or protein?

- A) Chromosome
- B) Gene
- C) Allele
- D) Nucleotide

4. How many pairs of chromosomes does a typical human body cell contain?

- A) 23
- B) 46
- C) 12
- D) 48

5. What is the process called when a cell divides to produce two genetically identical daughter cells?

- A) Meiosis
- B) Fertilization
- C) Mitosis
- D) Mutation

6. Which of the following describes an organism that has two identical alleles for a particular trait?

- A) Heterozygous
- B) Homozygous
- C) Dominant
- D) Recessive

7. In Mendelian genetics, what do we call an allele that masks the expression of a recessive allele?

- A) Dominant
- B) Codominant
- C) Mutant
- D) Linked

8. What is the name of the cell division process that produces gametes (sperm and egg cells)?

- A) Binary fission
- B) Mitosis
- C) Meiosis
- D) Cloning