

Fundamentals of Genetics

Genetics · Practice Test · 8 Questions

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

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

2. In humans, how many pairs of chromosomes are typically found in the nucleus of a somatic cell?

- A) 12
- B) 23
- C) 46
- D) 50

3. What are the 'rungs' of the DNA double helix ladder composed of?

- A) Sugar molecules
- B) Phosphate groups
- C) Nitrogenous base pairs
- D) Amino acids

4. Which term describes an individual who has two identical alleles for a particular gene?

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

5. Who is widely considered the father of modern genetics due to his experiments with pea plants?

- A) Charles Darwin
- B) Gregor Mendel
- C) Louis Pasteur
- D) James Watson

6. What is the specific physical location of a gene on a chromosome called?

- A) Locus
- B) Allele
- C) Genotype
- D) Phenotype

7. Which nitrogenous base is found in DNA but is replaced by uracil in RNA?

- A) Adenine
- B) Guanine
- C) Cytosine
- D) Thymine

8. What term refers to the observable physical characteristics of an organism resulting from its genotype?

- A) Phenotype
- B) Mutation
- C) Allele
- D) Genome