

Nucleic Acids Quiz PDF

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What type of sugar is found in DNA?

- Ribose
- Glucose
- Deoxyribose
- Fructose

Which of the following are stop codons?

- UAA
- AUG
- UGA
- UAG

What is the significance of the antiparallel nature of DNA strands?

How does the genetic code ensure accurate protein synthesis?

Which of the following statements about mutations are true?

- They can lead to genetic disorders.
- They always result in harmful effects.
- They contribute to genetic diversity.
- They can be caused by environmental factors.

Explain the role of tRNA in protein synthesis.

Which of the following base pairs is correct in DNA?

- A-U
- C-T
- G-C
- T-G

Which of the following is a start codon in mRNA?

- UAA
- AUG
- UGA
- UAG

How do mutations affect the genetic code and potentially lead to genetic disorders?

What is the primary function of mRNA?

- To replicate DNA
- To transport amino acids
- To carry genetic information from DNA to the ribosome
- To form the structure of ribosomes

Describe the process of DNA replication and its significance.

What is the shape of DNA?

- Single helix
- Double helix
- Triple helix
- Linear strand

Which of the following are components of a nucleotide?

- Nitrogenous base
- Phosphate group
- Amino acid
- Sugar

What are the functions of DNA?

- Store genetic information
- Synthesize proteins directly
- Guide development
- Replicate itself

Which of the following are types of RNA?

- mRNA
- tRNA
- rRNA
- dRNA

Which nitrogenous base pairs with Adenine in DNA?

- Cytosine
- Guanine
- Thymine
- Uracil

Which enzyme is primarily responsible for DNA replication?

- RNA polymerase
- DNA ligase
- DNA polymerase
- Helicase

Which processes involve RNA?

- Transcription
- Translation
- Replication
- Mutation

Which nitrogenous base is found in RNA but not in DNA?

- Thymine
- Uracil
- Adenine
- Cytosine

Discuss the differences between DNA and RNA in terms of structure and function.