

Name _____

Pre-Assessment-DNA Structure and Replication Part 1: DNA Replication Multiple Choice

For each question, choose the answer that *best* completes the question or statement. Write the corresponding letter for that answer in the blank provided. Also, mark whether you are sure or unsure about each answer, which you will use later to evaluate yourself.

_____1. Select the statement that best describes the structure of DNA.

- A. Triple helix.
- B. A single stranded nucleic acid.
- C. Double helix
- D. A double stranded RNA molecule.

_____ Sure _____ Unsure

_____2. The building blocks of DNA are known as?

- A. nucleotides
- B. nucleic acids
- C. amino acids
- D. nitrogen bases

_____ Sure _____ Unsure

_____3. What are the three parts of a nucleotide?

- A. phosphate, sugar, amino base
- B. sugar, phosphate, uracil
- C. phosphate, ribose, nitrogen base
- D. sugar, phosphate, nitrogen base

_____ Sure _____ Unsure

_____4. What is the name of sugar found in DNA?

- A. glucose
- B. deoxyribose
- C. ribose
- D. sucrose

_____ Sure _____ Unsure

_____5. What are the DNA base pairing rules?

- A. A-T C-G
- B. A-U C-G
- C. A-C T-G
- D. A-U C-C

_____ Sure _____ Unsure

Part 3: Protein Synthesis Multiple Choice

For each question, choose the answer that *best* completes the question or statement. Write the corresponding letter for that answer in the blank provided. Also, mark whether you are sure or unsure about each answer, which you will use later to evaluate yourself.

_____12. What happens during the first step of transcription?

- E. The DNA is coiled tightly around a histone protein.
- F. The tRNA binds to the DNA.
- G. The DNA is split open.
- H. The messenger RNA dissolves.

_____Sure _____Unsure

_____13. What happens during the second step of transcription?

- E. The DNA is copied onto a single strand of mRNA.
- F. The DNA is duplicated.
- G. The DNA is copied onto a tRNA.
- H. The DNA is closed.

_____Sure _____Unsure

_____14. What happens after transcription is finished?

- A. The DNA leaves the nucleus.
- B. The mRNA leaves the nucleus.
- C. The tRNA leaves the nucleus.
- D. The tRNA remains in the nucleus.

_____Sure _____Unsure

_____15. Which of the following represents the correct RNA base pairing rules.

- A. A-T C-G
- B. A-U G-C
- C. T-U G-J
- D. A-T J-C

_____Sure _____Unsure

Part 4: Matching- Protein Synthesis Part 2- Translation

Below is a description of steps to the second stage of protein synthesis called translation. However, the steps of translation are out of order. Match each step with the part of the translation it represents.

Record the corresponding letter for that step next to its corresponding part in translation Also, mark whether you are sure or unsure about each answer.

- G. The ribosome attaches to the mRNA finds the following codon: AUG.
- H. The tRNA with the anti-codon leaves to find another amino acid.
- I. The ribosome creates a peptide bond between the two amino acids.
- J. A tRNA binds in the mRNA's second codon.
- K. The ribosome slides down the mRNA to the next codon.
- L. A tRNA with an anti-codon UAC binds to the mRNA's codon.

_____16. Step 1	___Sure ___Unsure
_____17. Step 2	___Sure ___Unsure
_____18. Step 3	___Sure ___Unsure
_____19. Step 4	___Sure ___Unsure
_____20. Step 5	___Sure ___Unsure
_____21. Step 6	___Sure ___Unsure

Part 5:Raw Data

In this section you will simply look at how you did on each question and how you thought you did on each question. On the table below, check whether you got the question correct or incorrect and whether you were sure or unsure.

Question	Correct	Incorrect	Sure	Unsure
Example	X		X	
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