

Name: _____ Date: _____

DNA Exam Review

1. What does DNA stand for?
2. Describe the structure of DNA.
3. What components make up a nucleotide?
4. List the four nitrogenous bases.
5. What is a group of three nitrogenous bases called?
6. Adenine always bonds with _____ and cytosine always bonds with _____.
7. The order of amino acids determines the kind of _____ that will be produced.
8. List the four types of DNA typing.

9. What is the purpose of the Polymerase Chain Reaction process?

10. Describe the three main stages of PCR.

11. The three stages of PCR are repeated how many times?

12. Describe the process of gel electrophoresis.

13. The short segments used in STR consist of _____ - _____ bases that repeat themselves.

14. Describe the steps of STR

15. What is the importance of the colored fluorescent tags used in the STR process?

16. _____ DNA is only inherited from the maternal side.

17. Explain the limitations of mitochondrial DNA analysis when identifying a specific individual.

18. When is mitochondrial DNA most beneficial?

19. What is CODIS and what does it stand for?

20. What are the biological sources of DNA?

21. What is the first thing a crime scene investigator must do when collecting and packaging biological evidence?

22. Explain why a CSI agent must avoid using plastic or airtight containers when packaging biological samples.

23. How must you remove dried blood from a crime scene?

24. Explain why it is important to place biological samples from a crime scene in a cool location.