DNA Test

1. How many genes do humans have?
   a. 2,500
   b. 25,000
   c. 20,000

2. How long would the DNA in one human cell be?
   a. 3 meters long
   b. 3 centimeters’ long
   c. 2 millimeters’ wide

3. What is DNA
   a. Deoxyribo Nucleic Acid
   b. A chemical in your blood
   c. Does Not Need Analysis

4. Each strand contains a sequence of bases (also called nucleotides). What are the four bases?
   a. adenine, guanine, cytosine and geranium
   b. adenine, thyme, cytosine and clove
   c. adenine, guanine, cytosine and thymine

5. How is DNA packaged to fit into the small space of a cell nucleus?
   a. They are packed into compact units called a gene
   b. They are packed into compact units called chromosomes
   c. They are squeezed into a trait

6. What does VNTR stand for?
   a. Variable Number That Reuptake.
b. Variable Number Tandem Repeaters.
c. Variable Nucleotides That Repeat.

7. How many chromosomes are in a human cell?
   a. 46
   b. 64
   c. 23

8. What is an exon?
   a. An oil company
   b. A segment of a DNA or RNA molecule containing information coding for a protein or peptide sequence.
   c. The end sequence of a neuron

9. What is a Locus?
   a. A location a chromosome within a DNA sequence
   b. A insect that can help determine cause of death
   c. The specific location of a gene or DNA sequence or position on a chromosome.

10. Where do the “pairs” of chromosomes come from?
    a. One from each parent make up a pair.
    b. Two sets of jeans coming together.
    c. One each from your genes and DNA.

11. Where do a person’s VNTRs come from?
    a. A specific location in a person’s DNA.
    b. The genetic information donated by his or her parents.
    c. A genetic abnormality.

12. What is “junk DNA”?
    a. Cells that contain quite a bit of DNA that doesn’t encode anything.
b. DNA that has no use.

c. Abnormalities within the DNA that interferes with chromosomes.

13. What is a trait?
   a. It is not a person’s hair color, eye color or the color of skin
   b. It is a characteristic that two friends share.
   c. It is a notable feature or quality in a person.

14. The complete set of instructions for making a human being is found where?
   a. DNA
   b. Gene
   c. Trait

15. From what parts of the human body is DNA acquired?
   a. It is not found on or in a person’s body.
   b. Fingerprints and dental impressions.
   c. Skin, semen, saliva, hair, and every other part of the anatomy

16. Does every cell in the body contain DNA?
   a. No, cells that has abnormalities do not contain DNA.
   b. Yes, without DNA a cell could not exist.
   c. No, Mature red blood cells and cornified cells in the skin, hair, and nails contain no nucleus.

17. What is the function of the protein hemoglobin?
   a. Capture and carry oxygen.
   b. Carry and release oxygen.
   c. Capture and process oxygen.

18. What do genes tell the cell to make?
   a. Traits
b. Proteins  
c. Calcium  

19. Are humans the only source of DNA?  
a. Only primates have DNA.  
b. Everything that lives has DNA.  
c. Reptiles are the only living creature that do not have DNA.  

20. Where do we get our traits?  
a. From our peers.  
b. From our parents.  
c. From our children.  

21. Describe the sex chromosomes.  
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22. Explain how each child born to the same parents will have a different combination of chromosomes.  
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23. List three practical applications of DNA fingerprinting.  
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24. Describe structural proteins.  
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25. What is the role of proteins in transmitting pain messages?