**Nucleic Acids**

1. What are nucleotides?  
2. Describe a nucleotide.  
3. Name the nitrogen bases that participate in the formation of nucleotides?  
4. What is RNA? How is RNA formed?  
5. Name the different types of RNA that you know.  
6. What is the function of rRNA, mRNA and tRNA?  
7. What are the differences between RNA and DNA?  
8. What is the Chargaff rule?  
9. Who discovered the structure of the molecule of DNA? When?  
10. Draw a scheme of the DNA molecule.  
11. One strand of DNA has the following bases AAAATTTCGCGCG, what are the bases in the other strand?  
12. What is the function of DNA?  
13. Where is the information?  
14. What are genes?  
15. What is the genome?  
16. Name the type and location of DNA in the cell.   
**17. If one strand of a DNA molecule has the sequence of bases ATTGCA, the other complementary strand would have the sequence**

A) TAACGT. B) TUUCGU. C) UAACGU. D) TUUGCT. E) TAAGCT.

**18. Cytosine makes up 38% of the nucleotides in a sample of DNA from an organism. What percent of the nucleotides in this sample will be thymine?**

A) 12 B) 38 C) 24 D) 31 E) It cannot be determined from the information provided.

**19. All of the following statements apply to the Watson and Crick model of DNA *except:***

A) The framework of the helix consists of sugar-phosphate units of the nucleotides.

B) The two strands of the helix are held together by covalent bonds.

C) The purines are attracted to pyrimidines.

D) The two strands of the DNA form a double helix.

E) The distance between the strands of the helix is uniform.